LABOR MIGRATION IN ASIA

CHANGING PROFILES AND PROCESSES

ADBInstitute

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BETTER POLICIES FOR BETTER LIVES

International Labour Organization

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This publication was jointly prepared by the Asian Development Bank Institute (ADBI), the Organisation for Economic Co-operation and Development (OECD), and the International Labour Organization (ILO).

Note:
In this publication, "$" refers to United States dollars.

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ABBREVIATIONS

AI	artificial intelligence
ASEAN	Association of Southeast Asian Nations
ASEEM	Aatmanirbhar Skilled Employee Employer Mapping
BEOE	Bureau of Emigration and Overseas Employment, Pakistan
BOI	Bureau of Immigration, India
ECNR	Emigration Check Not Required
ECR	Emigration Check Required
EMS	Expat Management System
EPS	Employment Permit System
EU	European Union
FTE	full-time equivalent
GCC	Gulf Cooperation Council
GDP	gross domestic product
GLMM	Gulf Labour Markets, Migration, and Population Programme
ILO	International Labour Organization
IMF	International Monetary Fund
IOM	International Organization for Migration
ISCO	International Standard Classification of Occupations
IT	information technology
LFEA	licensed foreign employment agency
MADAD	MEA [Ministry of External Affairs] in Aid of Diaspora in Distress, India
MHRSD	Ministry of Human Resources and Social Development, Saudi Arabia
MOHRE	Ministry of Human Resources and Emiratisation, United Arab Emirates
OECD	Organisation for Economic Co-operation and Development
PAC	prior approval category
PACI	Public Authority for Civil Information, Kuwait
PBBY	Pravasi Bharatiya Bima Yojana
POE	Protector of Emigrants
PRA	private recruitment agency
PRC	People's Republic of China
SLBFE	Sri Lanka Bureau of Foreign Employment
SVP	Skills Verification Program
SWADES	Skilled Workers Arrival Database for Employment Support
TOPIK	Test of Proficiency in Korean
UAE	United Arab Emirates
UMANG	Unified Mobile Application for New-Age Governance
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization

FOREWORD

Migration flows across the world were sharply curtailed in 2020—especially in Asia, where travel and admission to many economies were strictly regulated. The impact of the coronavirus disease (COVID-19) pandemic on labor mobility in Asia in 2021 was still strong. By the end of 2022, as restrictions on movement were lifted, labor migration flows in most corridors in Asia had returned to pre-pandemic levels. Key sectors continue to rely on a migrant workforce in many economies.

Some of the most profound linkages among Asian economies and with other parts of the world are the significant and multidirectional flows of labor migration. About 5 million workers are deployed annually from the Asian economies included in this report, excluding additional exits of workers not covered by origin country record-keeping. Deployments were abruptly staunched during the COVID-19 pandemic: there were about 6 million fewer departures for work than would have been expected in the timespan between March 2020 and December 2021. Only in 2022 did deployments return to levels approaching those maintained during the 2010s. Not all Asian economies saw deployment return to those levels, however. Remittances to Asian economies, which fell slightly in 2020, increased in both 2021 and 2022.

The skill profile of Asian labor migrants had been increasing prior to the pandemic. A growing share of deployments, from those countries that monitor the skill profiles of deployed workers, was skilled. This trend appeared to be reversed in 2022, as the deployment of elementary occupation workers comprised a larger share of total deployments than in the pre-pandemic period. Since most countries of origin have a long-standing priority to increase the share of skilled and professional workers among labor migrants, the 2022 figures are a setback in this attempt.

The factors driving labor migration in the next decade will include not only the increased demand for skills but also structural shifts in demographics in destination economies and policy changes in the main historical destinations for labor migration. Gulf Cooperation Council (GCC) countries, the main recipients of deployed labor migrants from Asia, have been implementing policies to change the composition of their labor forces and redefine the role of migrant workers in private sector employment. This report reviews some of the main changes, many of which point in the direction of more limited, if more skilled, opportunities for deployment. At the same time, the figures presented in this report indicate the growing importance of Organisation for Economic Co-operation and Development (OECD) countries and other destinations, especially those where youth cohorts are still declining. Additionally, digitalization, while not a panacea, has played an increasingly important role in facilitating the recruitment and emigration process, thus enabling more effective labor migration management.

These trends were already visible prior to the pandemic and the topic of the annual Roundtable on Labor Migration in Asia, which has been organized since 2011 by the Asian Development Bank Institute (ADBI), the OECD, and the International Labour Organization (ILO). In May 2022, the 12th Roundtable was held in Bangkok, with the theme "Recovering from COVID-19: What Does It Mean for Labor Migration in Asia?"

ADBI, the OECD, and the ILO have also prepared this joint annual publication. The 2023 edition, Labor Migration in Asia: Changing Profiles and Processes, has three chapters and two statistical annexes providing the most complete comparative data on international labor mobility in Asia. The report includes major outcomes and key takeaways from the 12th Roundtable on Labor Migration in Asia.

It also provides up-to-date information on the developments in the deployment trends related to the COVID-19 pandemic and the policy responses in origin and destination economies.

Chapter 1 reviews the labor migration and remittance trends in Asia and migration flows from Asia to OECD countries. It describes the remarkable post-pandemic rebound of labor migration from many Asian economies, identifying the principal policy shifts that contributed to this trend. It also provides an overview of the gender distribution of Asian labor migrants.

Chapter 2 takes a closer look at structural shifts in the labor markets of the main destinations for migrant workers from Asia, the GCC countries. Migration reform measures underway in the GCC will affect future demand for migrant workers in the region, with significant possible consequences for Asian workers, especially those from South Asia. The chapter reviews labor market reforms, migration policy shifts, and other trends that might affect future deployment opportunities from Asia.

Chapter 3 examines how the digitalization of recruitment and emigration processes can contribute to greater transparency, lower migration costs, and faster deployment. It presents two case studies on the digitalization of recruitment processes in India and Sri Lanka in order to review the features of such platforms and draw conclusions and recommendations for future policy development in this domain relevant for countries in the region.

This publication aims to provide guidance and reference as economies chart a policy course to emerge from this period of upheaval and look to recovery. We hope that this publication will be of use to policy makers and practitioners in and outside governments in Asia and in OECD countries. Our sincere thanks go to the team that continues to organize the annual Roundtable on Labour Migration and the authors of this year's timely publication.

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Trends in Labor Migration in Asia

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1.1 Introduction

The end of strict entry controls over the course of 2021 and 2022, with a few notable exceptions such as the late lifting of controls in the People's Republic of China (PRC), allowed the Asian labor migration landscape to recover most of its characteristics from before the coronavirus disease (COVID-19) pandemic. Global labor shortages due to the recovery and lower stocks of foreign workers are greatly increasing the demand for labor migration. Oil prices, an important determinant of demand in major destination countries, suffered only a temporary decline since the beginning of 2021 and indeed rebounded to a relatively high level, which has contributed to fueling labor demand in the Gulf region.

Skill shortages have sparked interest and competition for talent reflected in policy adjustments in several countries, although demand for low-skilled workers has also made a resurgence. These changes have opened deployment opportunities for Asian countries sending migrants.

The exceptional character and scale of the disruption caused by the pandemic calls for the most recent and detailed data possible. The recovery observed in labor migration movements is almost as steep as the preceding fall related to border closures and other restrictive measures, which can make data and information quickly obsolete. This chapter provides an overview of labor migration trends until the end of 2022 with all the most recent available data. Data for most major Asian countries are available—with the notable exception of the Philippines, for which only limited figures have been reported. After describing the changing trends by origin and destination countries, the chapter focuses on skills, gender, student mobility, and a brief overview of the most recent policy measures concerning workers and investors. The chapter ends with a section describing the latest trends of remittance inflows to Asia and the Pacific at the regional and subregional levels, and the evolution of their costs.

1.2 Changing Trends: Short- and Medium-Term

Migration flows around the world collapsed in 2020, and the impact of the COVID-19 pandemic on global mobility flows remained strong in 2021, especially in Asia, which was the most affected region. By 2022, however, flows in most migration channels in Asia returned to and sometimes exceeded pre-COVID-19 levels. Overall, deployments from the main Asian origin countries more than doubled in 2022 (+114%) to over 4.6 million workers (Figure 1.1).

Figure 1.1: Total Outflows of Workers from Selected Asian Countries, 2010–2022
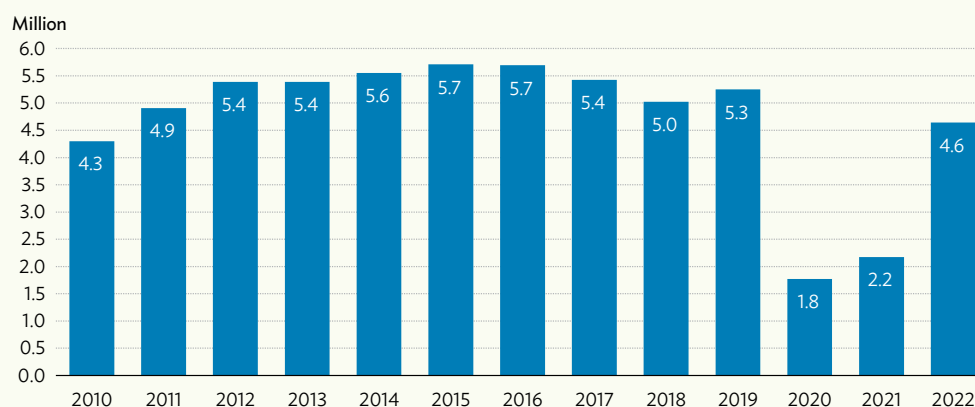
Note: Total of the 13 countries presented in Table 1.1. Data are partially estimated for 2021 and 2022. Total is calculated assuming outflows from countries with missing data follow the trend of those with available data.

Source: National authorities.

The most remarkable turnarounds in 2022 were observed in Nepal, with four times more worker outflows than in 2021, and in Pakistan, Indonesia, India, and Viet Nam (threefold increases) (Table 1.1). Concerning overseas workers from Bangladesh, the recovery started in 2021 and continued into 2022 with an 84% increase to well above a million deployments. As a result, Bangladesh replaced the Philippines as the top sending country in 2021 and 2022.

Table 1.1: Outflows of Workers from Selected Asian Countries, 2012–2022
('000)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2021/22 % change	2019/22 % change
Philippines	1,435	1,469	1,431	1,438	1,670	1,595	1,507p	1,649p	333p	397p	820p	107	−50
PRC	512	527	562	530	494	522	492	487	301	323	259	−20	−47
Pakistan	635	620	752	947	839	496	382	625	225	288	832	189	33
Bangladesh	608	409	426	556	758	1,009	734	700	218	617	1,136	84	62
Nepal	385	451	520	499	404	383	354	236	190	72	349	384	48
Indonesia	460	469	430	276	235	262	284	277	113	73	201	176	−28
India	747	817	805	781	521	391	340	368	94	133	373	181	1
Viet Nam	80	88	107	116	126	135	143	153	79	45	143	217	−6
Myanmar	68	67	65	95	146	162	234	330	75	3	...	...	...
Sri Lanka	282	293	301	263	243	212	211	190	54	122	300	146	58
Thailand	134	131	120	117	114	115	116	114	41	37	88	136	−23
Cambodia	35	23	25	41	86	96	105	68	23	...	...	...	...
Lao PDR	7	23	8	51	58	49	120	54	28	...	...	...	...
Total	5,388	5,387	5,551	5,710	5,693	5,428	5,022	5,252	1,773	2,173	4,642	114	−12

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

Notes:
1. Totals for 2021 and 2022 are estimated.
2. p = preliminary data.

Source: National authorities.

The total is still lower than that observed in the pre-COVID-19 decade, as the recovery in deployments did not concern all countries. In particular, the Philippines and the PRC followed different post–COVID-19 trends. The Philippines was the top sending country all through the 2010s, and even in 2020, but its upturn was slower, with a 30% increase in 2021 followed by a further +107% in 2022, to reach 820,000 land-based worker deployments.[1] This represents around half of the pre-COVID-19 annual departures. The stock of overseas Filipino workers also fell, from 2.2 million in 2019 to 1.8 million in 2021, and remained at this level in 2022. In the PRC, where deployment figures cover "overseas labor cooperation," essentially for construction workers, there has been no recovery at all. The 259,000 deployments in 2022 were even fewer than the 2020 figure. This led to a continued decrease of the stock of overseas workers: as of December 2022, only 543,000 Chinese workers were still employed abroad under labor cooperation, compared with a stable pre-COVID-19 figure of around 1 million between 2015 and 2019. This decrease can be explained by the decline in activity by Chinese construction contractors abroad and by the quarantine procedures for returning Chinese, which may have discouraged participation by workers.

In detail, the recovery was led by some bilateral channels, especially between South Asian countries and Gulf Cooperation Council (GCC) countries. Flows of Asian workers to Saudi Arabia reached a record level, at almost 1.5 million. Although this figure does not consider flows from the Philippines and Sri Lanka, for which detailed figures on 2022 worker deployments are not yet available by country of destination, it is already higher than the previous record observed in 2019. In particular, Saudi Arabia received more than 600,000 overseas workers from Bangladesh in 2022 (Table 1.2), a third more than in 2021 and 50% more than in 2019. The Bangladesh-Saudi Arabia corridor became active again as soon as December 2020, and the most recent data show that over 40,000 workers per month were deployed to Saudi Arabia from Bangladesh in the first months of 2023. Pakistan was the second main origin country of workers in Saudi Arabia in 2022 with 515,000 Pakistani workers registered for employment, three times more than the year before and of the same order of magnitude as the 2015 record. Deployments from India and Nepal to Saudi Arabia involved 180,000 and 125,000 workers, respectively, levels not seen since 2015.

Table 1.2: Flows of Workers to Gulf Cooperation Council Countries, 2022 and % Change 2019–2022

	Bangladesh		India		Indonesia		Nepal		Pakistan		Sri Lanka	
	2022	% change	2022	% change	2022	% change	2022	% change	2022	% change	2022	% change
Saudi Arabia	612,418	53	178,630	11	4,676	−33	125,369	172	514,909	55	51,421	45
United Arab Emirates	101,775	2,967	33,233	−56	548	−5	53,844	−14	128,477	−39	...	...
Oman	179,612	147	31,994	13	115	−76	3,626	33	82,380	190	...	...
Qatar	24,447	−51	30,871	−3	848	291	76,823	2	57,999	200	69,992	72
Kuwait	20,422	66	71,432	56	718	−8	22,786	42	2,089	1,558	76,579	78
Bahrain	10	−92	10,232	2	...	...	7,592	64	13,653	67	...	...
Total GCC	938,684	75	356,392	1	6,905	−25	290,040	40	799,507	33	...	...

... = data not available, GCC = Gulf Cooperation Council.

Note: Detailed figures on 2022 worker deployments from the Philippines are not available by country of destination, and they are only partially available for Sri Lanka. For Nepal, data refer to fiscal year 2021/2022, starting 16 July 2021.

Source: National authorities of origin countries.

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[1] See Table 1.A1 for data on seafarers.

The United Arab Emirates (UAE) was again the second GCC destination country for Asian workers in 2022. Inflows from Pakistan rebounded very sharply, from 27,000 to 128,000. The lack of data from the Philippines does not allow a complete picture of recovery of Asian worker inflows, as it is traditionally the main provider for the UAE. However, comparing pre- and post-COVID-19 figures, there is a switch from India to Bangladesh as the third major source country, with more than 100,000 deployments from Bangladesh in 2022, against only 33,000 from India.

In 2022, Oman attracted 180,000 workers from Bangladesh, triple the 2021 figure and more than ever before, and over 82,000 workers from Pakistan, also a record. Qatar inflows from most countries have returned at least to their 2019 level, as for India (31,000), Nepal (76,000), and Pakistan (58,000). The only exception is Bangladesh (24,000, half that in 2019). Deployments from South Asian countries to Kuwait in 2022 were also comparable to what they were before the pandemic, with 71,000 Indian workers and 23,000 from Nepal. Flows to Bahrain followed this pattern as well.

Overall, in 2020, GCC destination countries received just under 50% of the 1.7 million Asian worker outflows. Driven by inflows to Saudi Arabia from South Asia, 2 years after the start of the pandemic, this share has returned to an estimated 60%, similar to 2019—assuming the Philippines and Sri Lanka deployment distribution between GCC and other countries follows the historical composition.

Recovery is also visible in Association of Southeast Asian Nations (ASEAN) countries, as shown in Table 1.3. Singapore, Malaysia, and Thailand are the main destination countries for Asian migrant workers. In 2022, 64,000 citizens of Bangladesh came to work in Singapore, an unprecedented level, and inflows from Indonesia and Thailand rebounded slightly. Overall, the stock of foreign workers in Singapore increased by 9% during the first 6 months of 2022, to over 1.3 million. This increase involved all categories of workers—foreign domestic workers (+4%), skilled workers (+5%), Employment Pass holders (managers and executives, +4%)—but the largest increase was for semi-skilled workers (+16%).

Table 1.3: Flows of Workers to ASEAN Countries, by Origin and Destination, 2022

		Origin						
		Indonesia	Nepal	Bangladesh	India	Pakistan	Thailand	Sri Lanka
		2022	2021/22	2022	2022	2022	2022	2022
Destination	Singapore	6,624	188	64,383	...	95	3,064	1,178
	Malaysia	43,163	26,091	50,090	12,836	6,175	4,402	266
	Thailand	...	12	...	3	...	...	36
	Brunei Darussalam	513	285	1,850	...	202	453	...
Total 2022		50,300	26,576	116,323	12,839	6,472	7,919	1,480

... = data not available, ASEAN = Association of Southeast Asian Nations.

Source: National authorities of origin countries.

After a 3-year moratorium and following the signature of a new memorandum of understanding between the two countries, workers from Bangladesh were able to come back to Malaysia. More than 50,000 did in 2022. This is still significantly below the 2017 and 2018 levels (100,000 and 175,000, respectively), but the beginning of 2023 shows a boom, with 54,000 inflows in just the first two months. This sharp increase has been driven by labor demand and employer requests. The political context was also favorable, as working conditions and safety of migrant workers are a priority of the new Malaysian prime minister (Parkaran 2023). The evolution of inflows of Nepalese workers followed

the same pattern, with a rebound in the financial year 2021–2022, at 26,000, and already more than 100,000 between August 2022 and January 2023, including 16,000 only for the first month of 2023. Labor migration from neighboring Indonesia—historically Malaysia's main partner—also appears to have accelerated: 43,000 Indonesian workers arrived in 2022, and almost 10,000 in January 2023.

The recent trend in flows to Thailand as a destination country for Asian workers is still hard to capture due to lack of data on the main origin groups, namely Myanmar and Cambodia, and because a large proportion of the flows are undocumented. However, the most recent figure is 8,000 inflows from Myanmar in the sole month of June 2022, suggesting the recovery might have been strong in 2022. As an emigration country, between 2010 and 2019, Thailand was characterized by a great stability, in terms of both number of outflows and their distribution among destination countries. The 2022 outflows, at 88,000, are still below the 2010–2019 average (118,000), but the distribution is very similar to what it was before the pandemic. Indeed, as in 2019, almost 30% went to Taipei,China, the main destination, while Israel, Japan, and the Republic of Korea each received around 10%.

Nepal's outflow recovery was particularly strong and led to figures even higher than just the pre-COVID-19 level. This was mostly driven by deployments to GCC countries and Malaysia, which together account for 90% of the total, but increases were registered in numerous countries in other regions. For example, in 2022, Romania and Croatia are in the top 10 destinations for Nepalese workers, with 6,400 and 5,200, respectively. In the United Kingdom, almost 24,000 entry clearance visas were delivered to Nepalese citizens in 2022, approximately twice more than in the pre-COVID-19 period (11,000 on average in the 2010s). Of the visas issued to Nepalese in 2022, 5,500 were for employment.

The Sri Lanka Bureau of Foreign Employment announced having signed agreements with several countries and planning 300,000 worker departures for foreign employment in 2022. This goal has been reached exactly, which represented a 146% increase compared to 2021. Most of the workers were deployed to GCC countries: 77,000 to Kuwait, 70,000 to Qatar, and 51,000 to Saudi Arabia. Outside the GCC, the Republic of Korea and Japan each hosted 10,000 Sri Lankan workers.

1.2.1 Gender of Asian Migrants

While there are huge variations in the gender composition of labor migration across countries of origin, linked to the type of occupations predominant in these flows, the changes over time within countries remain limited (Figure 1.2). Traditionally, three countries send more women than men for overseas labor: Indonesia (61% in 2022), the Philippines (60% in 2021), and the Lao People's Democratic Republic (53% in 2020). Women represented between 30% and 40% of worker deployments from Cambodia, Viet Nam, Sri Lanka, and Myanmar over the period, around 20% of those from Thailand, 10% for Bangladesh, and 8% for Nepal. Despite a recent uptick, the share of women among workers from India and from Pakistan in 2022 stood below 2% and 1%, respectively.

Until 2019, a certain trend toward a greater share of women among migrant worker outflows could be discerned in the data presented. While the share of women in the stocks of overseas Filipino workers continued to increase during the COVID-19 years, most countries witnessed a small decline of the share of women. In 2022, the share of women among deployments from Bangladesh was even the lowest of the observed period (9%). This was also the case for Indonesia, although at a much higher level (61%). The increased share of women in 2021 outflows from Indonesia is due to the fact that COVID-19 disproportionately disrupted deployment of workers in predominantly male occupations. In 2021, domestic and care workers, who are predominantly women, comprised more than 80% of deployments. By 2022, the pre-COVID-19 distribution of occupations was reestablished. For Sri Lanka, the share of women dropped from 43% in 2019 to 34% in 2021.

Figure 1.2: Share of Women Among Labor Migrants by Origin Country, Selected Asian Countries, 2016–2022 (%)
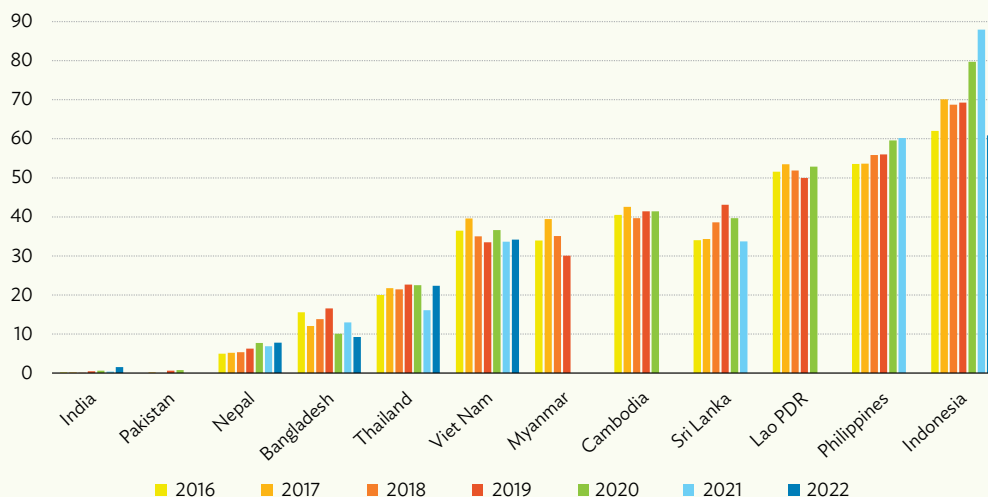
Lao PDR = Lao People's Democratic Republic.

Source: Official data from national authorities; ILO (2022). For the Philippines, data refer to stocks of overseas Filipino workers.

At the same time, Sri Lanka is easing restrictions on women's migration in general (Weeraratne 2023). The Family Background Report policy introduced in June 2013 to prevent mothers of children under 5 from working abroad—initially applying only to domestic workers' departures and extended to all women in 2015—was relaxed in June 2022. In order to promote migration and the resulting remittances during the economic crisis in Sri Lanka, the minimum child's age was lowered in the policy from 5 to 2 years.

Domestic workers, being predominantly women, tend to increase the share of women in overall deployment. Policy changes in this area are likely to affect the overall gender balance. For example, the Sri Lankan Minister of Labor and Foreign Employment announced in December 2022 that domestic workers will not be sent abroad from March 2023, although a new scheme for their deployment will be implemented.

The data used here is deployment data, so it excludes most skilled workers who are able to depart outside of the managed deployment channels as well as those who move irregularly in more precarious and low-paid work. For example, data for India do not include nurses (and other skilled workers) including in occupations with a higher representation of women.

1.2.2 Skill Levels of Migrants

Labor migration from Asia, as measured by official deployments, used to be mostly about elementary and semi-skilled occupations, but the evolution before the pandemic suggested an increasing average skill level, a trend that continued in 2020 and 2021. Data for 2022 are more disparate and may even suggest a catch-up demand for workers in elementary occupations, which would be interesting to monitor over 2023.

This catch-up demand is the case for Indonesian migrant workers. Deployments have always mostly concerned workers with only basic educational attainment, but their share declined gradually between 2017 and 2021 from 71% to 61% (Figure 1.3). In 2022, however, this share rose again to 65%, still lower than pre-COVID-19 but above the 2020 and 2021 levels.

Figure 1.3: **Workers by Skill Category, Selected Sending Countries, 2015–2022 (%)**
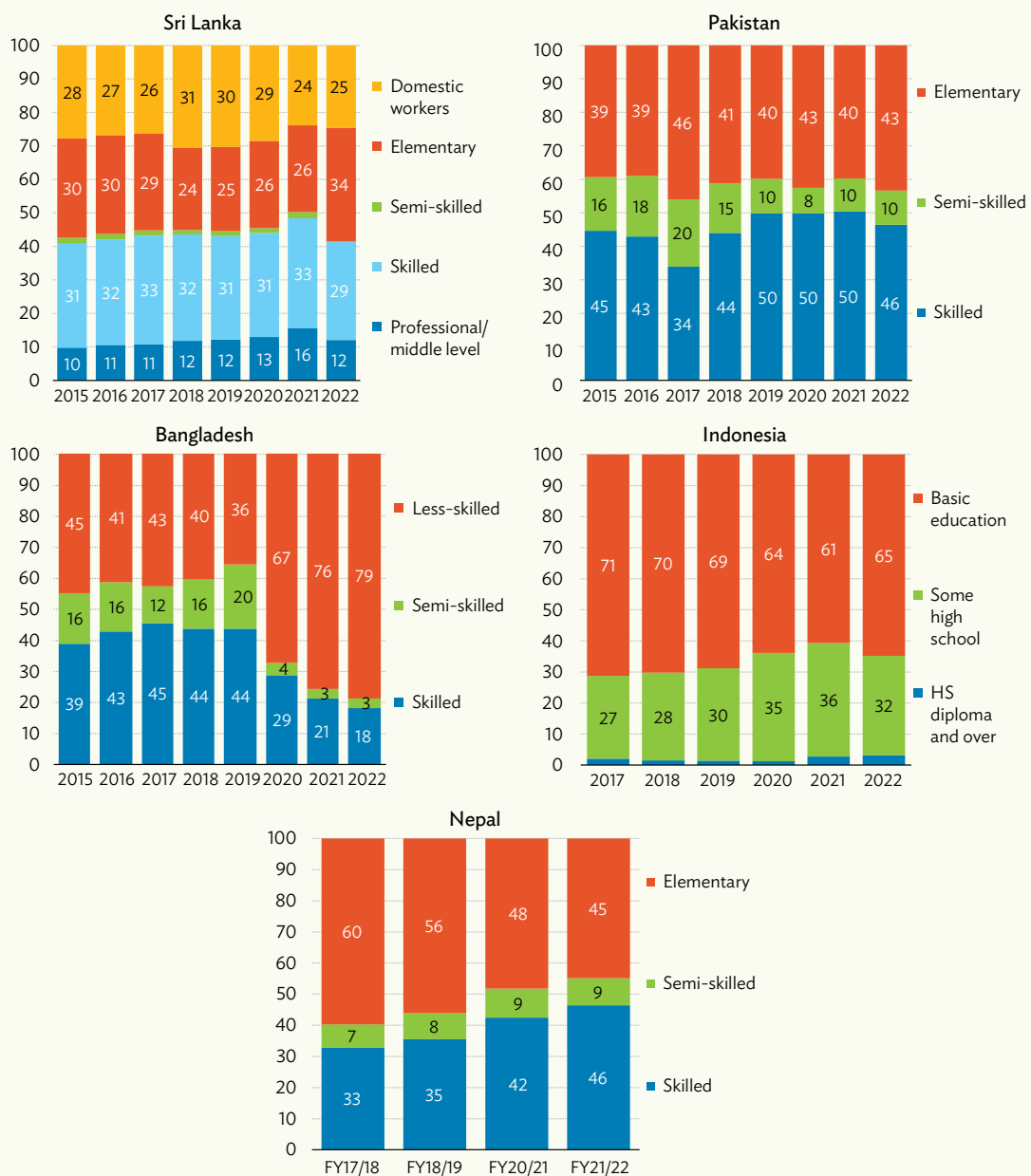
HS = high school, FY = financial year.

Note: For Indonesia, basic education includes junior high and primary school. For Nepal, skilled includes the categories skilled, highly skilled, and professional. For Pakistan, skilled includes the categories skilled, highly qualified, and highly skilled. For Sri Lanka, skilled includes the categories skilled, professional, and middle level/clerical. Categories are those reported in national data.

Source: National data.

According to the Bureau of Emigration and Overseas Employment in Pakistan, among those registered for employment abroad, skilled workers—including "highly qualified," "highly skilled," and "skilled" workers according to Pakistan's categorization—accounted for exactly half of the total from 2019 to 2021. But in 2022, the number of semi-skilled workers and those in elementary occupations more than tripled, so their share rose again to pre-COVID-19 levels.

Numbers announced for Sri Lanka by the Bureau of Foreign Employment for 2022 also suggest a trend reversal, with elementary occupation categories accounting for at least a third of the total. Indeed, of the 300,000 departures announced, more than 100,000 were workers in elementary occupations, 74,000 were domestic workers, and 88,000 were skilled workers, only 29%, the lowest since 2014.

In Nepal, the share of workers in elementary occupations among deployments steadily decreased from 60% in 2017/2018 to 45% in 2021/2022. For the first time in 2022, skilled workers outnumbered

Box 1.1: Increasing the Share of Women among Skilled Migrants

With labor migration highly gendered by occupation, the occupational composition of women labor migrants often skews toward less skilled due to the substantial number of domestic workers, who are classified as elementary. While one way to rebalance the skill composition of women labor migrants is to reduce the number of domestic workers—a policy announced in a number of origin countries—the alternative is to increase the share of women among skilled migrants. Nepal has seen some progress in this area (Figure 1.4).

Figure 1.4: Share of Women among Outflows from Nepal, by Skill Level (%)
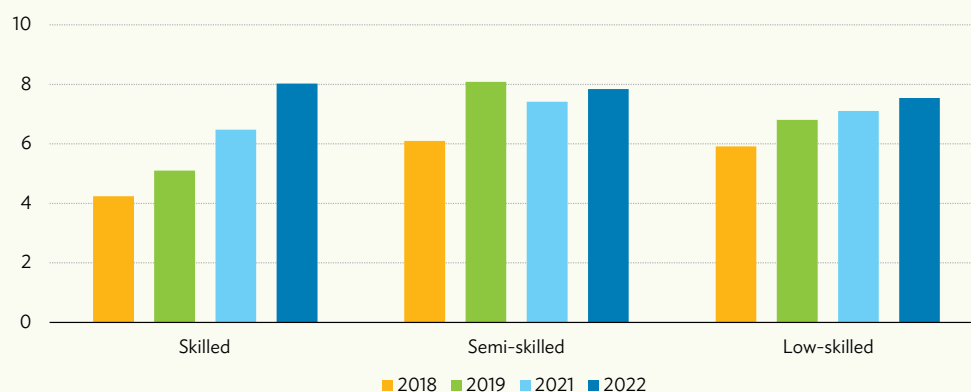
Note: 2020 data are not available. Skilled includes the categories skilled, high-skilled, and professional in the Department of Foreign Employment categorization.

Source: Nepal Department of Foreign Employment.

Between 2017/2018 and 2021/2022, the overall share of women among Nepalese migrant workers rose from 5.3% to 7.8% (Figure 1.4). The share increased in all three skill categories, but the sharpest concerned skilled women, whose share was very low in 2017/2018 but almost doubled in 5 years to reach 8.0%.

Although there are few women among migrant workers from Nepal, the share is growing, mostly among the skilled ones. As the objective is to develop skilled migration overall (for both men and women), it is important that access to migration channels is facilitated for women.

elementary ones (Figure 1.A1). Nepal does not seem affected by the rebound in the share of workers in elementary occupations. However, data by skill level for Nepal refer to the fiscal year, which ends mid-July. The figures published next year for 2022/2023 could paint a different picture.

The skills composition and the gender composition of labor migration are related, especially since predominantly female occupations among labor migrants are often classified as lower skilled (Box 1.1.)

Categorization in statistics for Bangladesh is not fully comparable over time and does not allow comparison between pre- and post-COVID-19 distribution by skill level. However, the trend observed until 2019 was that of an increasing skill level of deployed workers, and the trend between 2021 and 2022 that of a decreasing skill level.

The analysis of the International Labour Migration Statistics data on skills of migrants in ASEAN countries showed that the majority of migrant workers were employed in medium-skilled occupations in 2019. In particular, 56.2% of all employed migrant workers in Malaysia were in medium-skilled jobs, and in Thailand this percentage stood at 58.9% (ILO 2022).

1.3 Labor Migration to OECD Non-Asian Countries

In a post-Brexit and post-COVID-19 context, labor migration to the United Kingdom soared in 2022, with a total of 268,000 employment-based entry clearance visas issued to migrant workers (main applicants), two thirds more than in 2021 and 95% more than in 2019. The contribution of Asia to this growth was striking (Figure 1.5), as the number of these visas issued to Asian workers almost doubled in 2022 to reach 119,000, accounting for 44% compared to 38% in 2021. The three main subcategories were "Skilled Worker—Health & Care" with 39,000 issued to Asian citizens (+92% compared to 2021), "Skilled Worker" with 32,000 (+117%), and "Overseas Domestic Worker" with 16,000 (+115%). In terms of countries of origin, India represented more than half of the Asian total with 67,000, jumping 93% compared to 2021 and 84% compared to 2019. The Philippines (21,000) and Pakistan (5,500) followed, also with much higher levels than in the pre-COVID-19 period any year before. Record levels of inflows were also registered for Nepalese, Sri Lankan, and Indonesian workers.

Asia has long been the main region of origin of permanent immigrants to Canada, and especially so in the economic categories. Since 2015, Asian immigrants accounted for around 60% of the new permanent admissions under the economic categories. The increasing immigration targets set by the Government of Canada translated logically into higher numbers of new Asian economic migrants. This increase concerned mainly Indian citizens, which represented up to 65% of the economic total in 2021 with 113,000 permanent admissions (Figure 1.6).

For 2022, Canada's Immigration Levels plan included a target of 431,645 new permanent admissions, of which 241,850 were in the economic categories. These objectives have been exceeded; the 256,000 actual admissions even exceeded the "high range" in the economic part. The economic migrants included 93,000 Indian workers. The PRC followed with more than 20,000 economic migrants annually in both 2021 and 2022. Until 2016, the Philippines was the main origin country but has run counter to the overall increase, with economic migration declining until 2020. The post-pandemic rebound to 16,000 economic admissions in 2022 is still far from the 2019 level. The Canadian government targets for 2023 and 2024 economic categories foresee respectively 5% and 6% annual increases, making it likely that economic migration from Asia to Canada will continue to increase.

Figure 1.5: Labor Migration from Asia to the United Kingdom, 2015–2022
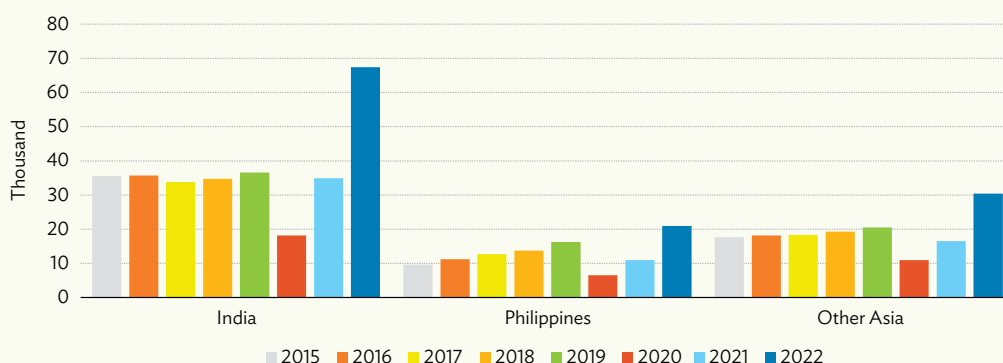
Note: Employment-based entry clearance visas issued for main applicant. Employment-based migration is former Tiers 1, 2, and 5.

Source: United Kingdom Home Office.

Figure 1.6: Labor Migration from Asia to Canada, 2015–2022
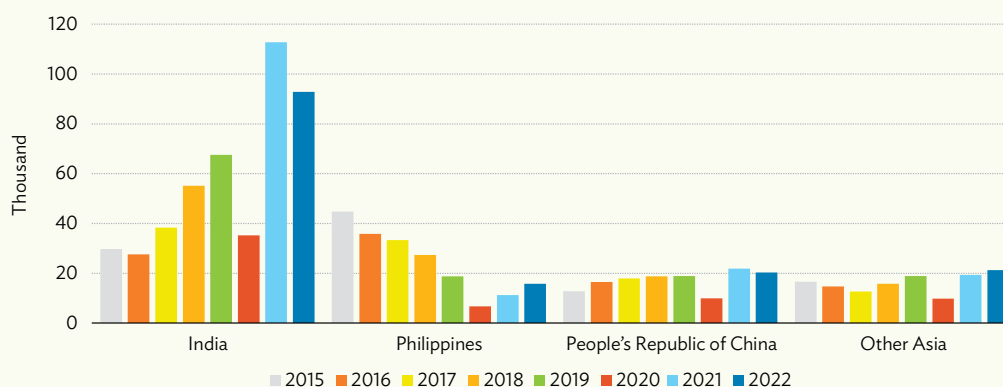
Note: Canada admissions economic categories (includes dependents of primary applicant).

Source: Immigration, Refugees and Citizenship Canada.

India was traditionally the main contributor to temporary skilled migration to Australia, but the number of temporary resident (skilled) visas granted to Indian citizens had started declining before COVID-19 and stood at 9,200 in 2019 (Figure 1.7). The rebound observed in 2022 was very sharp and represented a 42% increase from this 2019 level, at 13,100 migrants. Flows from the Philippines through this channel bounced back even more strongly to over 5,000 (+70% compared to 2019). Overall, the share of Asia in this temporary skilled labor migration rose from 49% in 2019 to 61% in 2022.

Figure 1.7: Temporary Skilled Labor Migration from Asia to Australia, 2015–2022
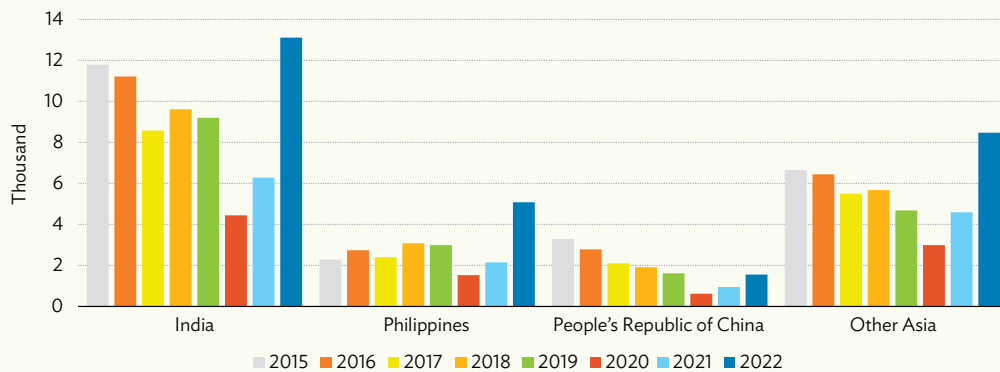
Note: Temporary resident (skilled) visas granted.

Source: Australian Department of Home Affairs.

Turning to skilled workers in the United States and looking at nonimmigrant visa issuances (Figure 1.8), which reflect only new arrivals from abroad, the share of Indian immigrants increased again in 2022 to over 80%. Following the strict travel restrictions in place, the share of the PRC among these has fallen from over 14% in 2019 to less than 4% in 2021 and 2022. In absolute numbers, while almost 200,000 Indian workers were issued an H-1B or H1B1 visa in 2022, representing an increase of 34% compared to 2019, only 8,000 visas were delivered to Chinese workers, 72% fewer than in 2019. Workers from other Asian countries received 12,000 visas, 20% more than in 2019. Most of the H1B visa beneficiaries from Asia are men (Box 1.2).

Figure 1.8: H-1B and H-1B1 Visa Issuances by the United States, by Country of Nationality of Recipient, 2019–2022
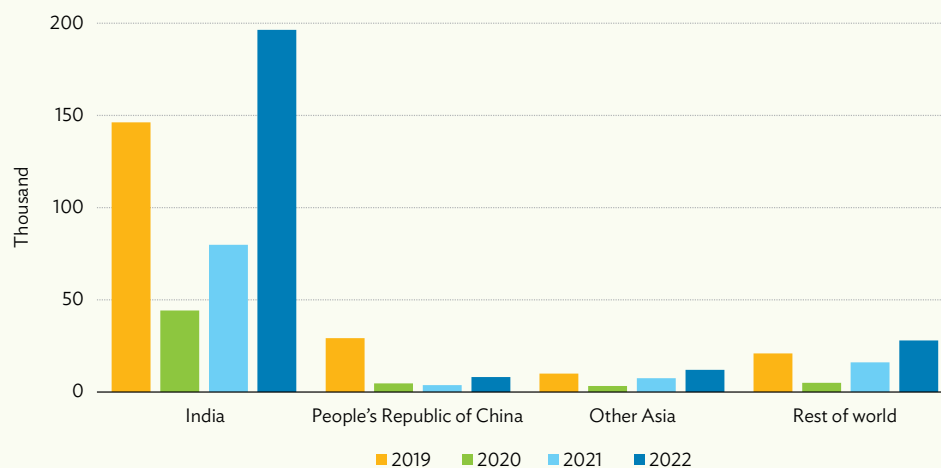
Note: Includes H-1B and H-1B1 visas.

Source: United States Department of State.

Box 1.2: **Gender Imbalances Are Slightly Decreasing among United States Temporary Skilled Immigrants**

Figure 1.9 refers to the H-1B petitions approved in the United States and includes all the status changes from other permits such as study; more than half of all H-1B recipients were previously students. It appears that more than 90% of the beneficiaries of the 407,000 H-1B petitions approved were Asian-born. H-1B is the major temporary permit for skilled workers, with more than two thirds typically being delivered in computer-related occupations. The gender balance clearly leans toward men despite a slight rebalancing between 2018 and 2021. In 2021, female H-1B beneficiaries represented 28% of the total, up from 25% in 2018 (Figure 1.3). The gender imbalance is particularly marked concerning Indian-born workers, as less than one in four Indian-born H-1B holders was a woman in 2021. Although this is low, this proportion represents an increase by 3 percentage points since 2018. In 2021, the proportion of women was also low among workers born in Pakistan (22%) and Nepal (28%). The share of women among H-1B holders was higher among workers with East Asian and Southeast Asian origin: among PRC-born, women accounted for 46%, for Taipei,China, the figure is 43%, for the Republic of Korea, 42%, and among Filipino workers, women are predominant and increasingly so, with 58% in 2021 compared to 55% in 2018.

Figure 1.9: **Gender Ratio in H-1B Petitions Approved, 2021 (%)**
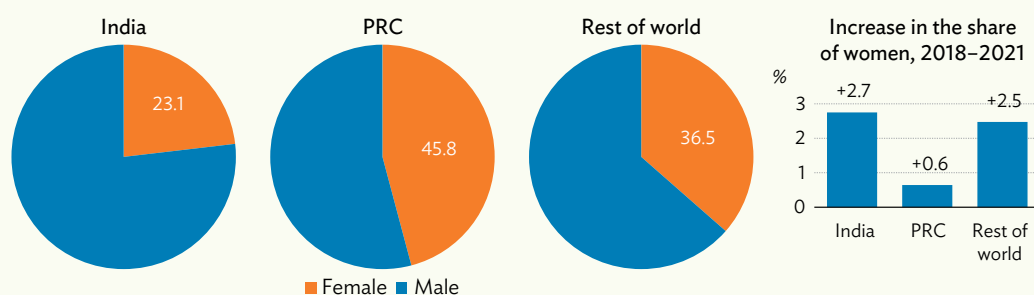
PRC = People's Republic of China.

Source: United States Citizenship and Immigration Services.

Part of skilled migration from Asia to the European Union (EU) goes through the EU Blue Card scheme for highly qualified workers. In 2019, Asian skilled workers received about 40% of the grants. India is by far the main Asian country of origin (Figure 1.10), although it is less dominant for EU migration than for H-1B visas in the United States. The 2021 figures show that the number of Asian Blue Card recipients rebounded but did not reach the 2019 level.

Figure 1.10: European Blue Card (Highly Qualified Workers) Issuances, 2019–2021
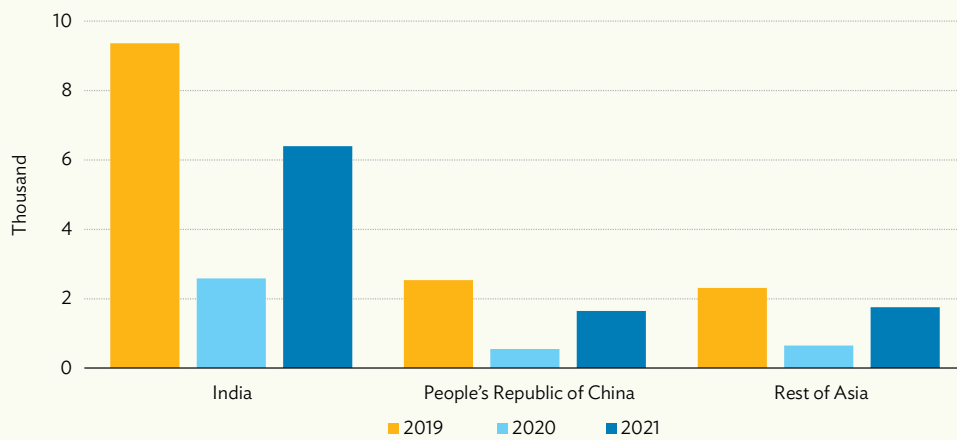
Source: Eurostat.

1.4 Labor Migration to OECD and Non-OECD Asian Economies

Following the long border closures and strict policies implemented in Japan aimed at combating the spread of the pandemic, the foreign population in the country dropped by 172,000 in 2 years to 2.76 million at the end of 2021. However, the number of foreigners employed in Japan increased, albeit more slowly. According to the Ministry of Health, Labour and Welfare (Figure 1.11), 1.82 million foreigners were employed in Japan in October 2022. This is 5% more than the previous year and 10% more than in 2019. About four in five workers were from other Asian countries. Foreign workers with

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Figure 1.11: Japan: Stock of Foreigners Employed, 2017–2022
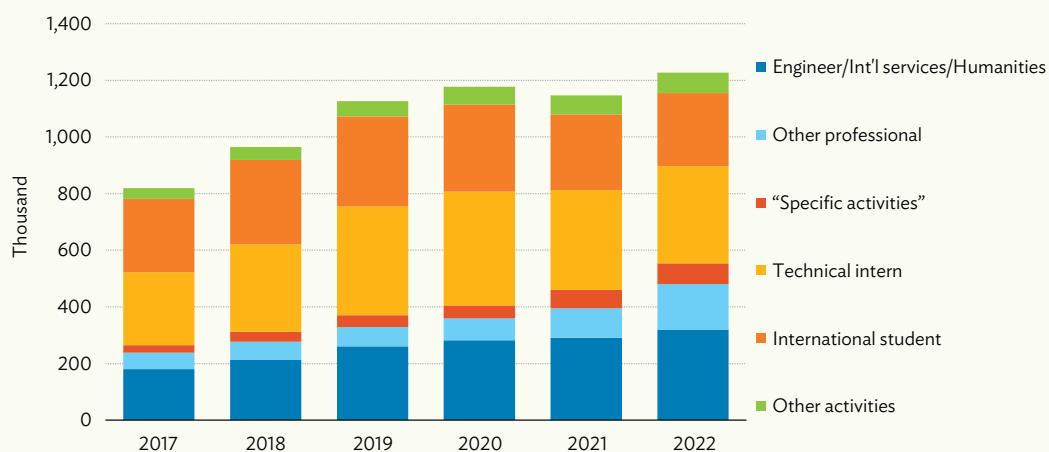
Source: Ministry of Health, Labour and Welfare, Japan. Figures for October of each year.

an "engineer, humanities and international services" status of residence were more than 319,000 in 2022, 58,000 more (+22%) than in 2019. The number of other professionals also jumped from 68,000 in 2019 to 161,000 in 2022. There were fewer students and technical interns in 2022 than in 2019, two categories heavily affected by travel limitations.

Vietnamese citizens made up the largest group in 2022, with 462,000 employed, 15% more than in 2019. Among them, 183,000 held technical intern status (compared with 193,000 in 2019), and 119,000 held the "professional and technical field" status, of which 70,000 were "engineer, humanities and international services." The PRC was the main country of origin before 2020, but the number of Chinese employed decreased over the period from 418,000 to 386,000 due to sharp drops of technical interns and students.

Before the outbreak of the COVID-19 pandemic, admissions of e-visa holders (the main employment category) to the Republic of Korea represented approximately 20,000 monthly entries, but in the following 20 months, the number never exceeded 4,000 (Figure 1.12). The recovery only started in December 2021, and by mid-2022, inflows were back to pre-pandemic levels. The fourth quarter of 2022 saw even more foreign worker admissions than the fourth quarter of 2019 had.

Figure 1.12: Republic of Korea: Monthly Employment Visa Entries, January 2019–December 2022
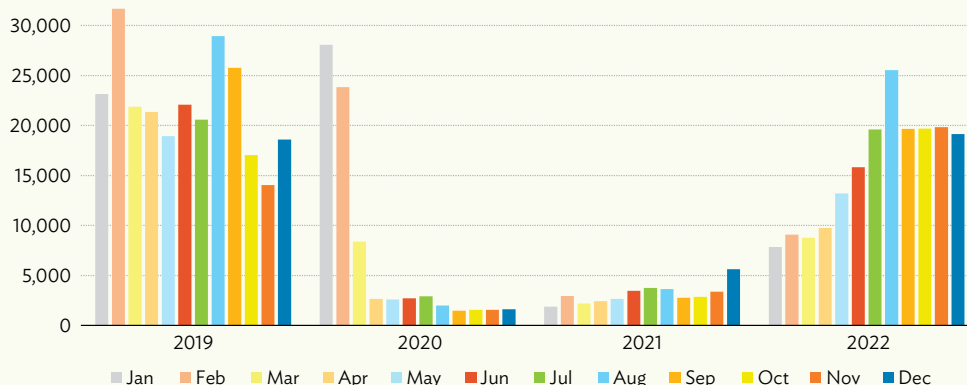
Source: Ministry of Justice, Republic of Korea.

At the end of 2022, the Ministry of Employment and Labor announced a plan to relax the rules for E-9 visa holders.[2] In particular, those mastering the Korean language would be exempted from having to leave the country after 5 years to reapply from their country of origin for an additional spell of employment and would instead be allowed to stay continuously for 10 years. The government also plans to broaden the range of sectors concerned and raised the annual admission quota for E-9 workers, which was below 70,000 prior to 2022, to 110,000 in 2023.

In Taipei,China, the foreign workforce declined by 8% due to the COVID-19 pandemic to stand at 660,000 in March 2022 but rebounded very strongly afterward. In the three remaining quarters of

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[2] The E-9 visa is one of the main work permits in the labor migration system of the Republic of Korea. It is intended for low-skilled workers.

2022, the foreign workforce grew by more than 10% and reached a record level at 728,000 at the end of 2022 (Figure 1.13). This quick recovery was needed to fill all the jobs created by changing industry demands in the midst of a shrinking talent pool due to low birth rates and an aging population. The whole of this increase was to fill in jobs in industry, in particular the manufacturing and construction sectors. In terms of countries of origin, most of the additional workers came from Viet Nam (47%) and Indonesia (28%).

Figure 1.13: Taipei,China: Stock of Foreign Workforce, by Sector, 2018–2022
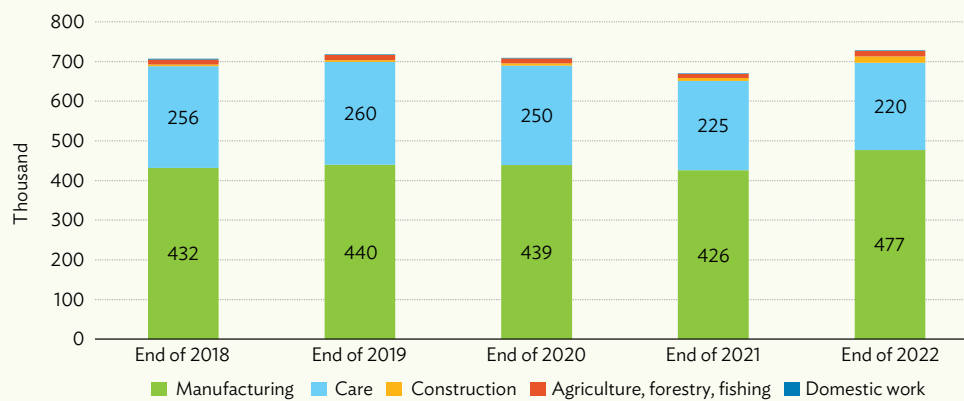
Source: Workforce Development Agency, Ministry of Labor, Taipei,China.

Gender-wise, this increase in productive industries was stronger among men (+17%) than among women (+12%). The care and domestic work sectors, where foreign workers are almost exclusively women, has seen no recovery, and the foreign workforce has been broadly stable since March 2022 at 220,000. At the end of 2022, the number of foreign workers in Taipei,China exceeded that of the end of 2019.

In Singapore, the total foreign workforce stood at 1.23 million in December 2020, as a result of a 14% decline in 2020 (Table 1.4). The construction, marine shipyard, and process sectors were the most affected and domestic workers the least. The rebound was quicker and stronger in the construction, marine shipyard, and process sectors than in the rest of the economy, so that as of December 2022, the sector employed 415,000 migrant workers, 12% more than before the pandemic. Overall, in December 2022, the total foreign workforce in Singapore was back to its December 2019 level exactly. The number of foreign workers may grow in 2023, since in December 2022 Singapore launched a scheme granting flexibility to hire foreign workers in order to support competitiveness. In this, Singapore is not alone, as other Asian economies introduced measures to favor new admissions of some categories of economic migrants (Box 1.3).

Table 1.4: Singapore: Foreign Workforce Numbers, December 2019–December 2022

Pass Type	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Employment Pass	193,700	177,100	161,700	187,300
S Pass	200,000	174,000	161,800	177,900
Work Permit (Total)	999,000	848,200	849,700	1,033,500
– Work Permit (Migrant Domestic Workers)	261,800	247,400	246,300	268,500
– Work Permit (Construction, Marine Shipyard, and Process)	370,100	311,000	318,400	415,000
– Work Permit (Other)	367,100	289,800	285,000	350,000
Other Work Passes	34,700	32,200	27,200	25,400
Total Foreign Workforce	1,427,400	1,231,500	1,200,400	1,424,200

Notes:
Data may not add up to the total due to rounding.

The Singapore Employment Pass is for highly skilled professionals and has a minimum salary requirement. The S Pass is for mid-level skilled staff with salary requirements.

Source: Ministry of Manpower, Singapore.

Box 1.3: Attracting Skills and Capital

With the end—or at least the reduction—of the pandemic-related restrictions, Asian economies have been able to implement schemes and measures aimed at facilitating and increasing inflows of skilled migrant workers and capital. Both are needed to address skilled labor shortages and to support the recovery from the pandemic.

In Thailand, the new Long-Term Resident visa targets high-income foreign workers and retirees as well as remote workers and those with special skills. Besides the 10-year right to work in Thailand, it offers the possibility to live with four family members. After the application opened on 1 September 2022, 1,600 people applied in the first 4 months. The application fee has already been halved since the launch (to 50,000 baht, $1,470), and further adjustments might be made to soften the requirements and make the visa more attractive.

Other Asian economies have recently launched new visas aimed at attracting high-potential foreign workers or affluent retired foreign citizens. Cambodia launched an investor visa called "My Second Home" with a threshold of $100,000. Indonesia also recently launched a "second home" long-term visa offering 10-year rights, with a 2 billion rupiah ($135,000) proof of funds requirement. Malaysia introduced in October 2022 a Premium Visa Program, similar to the My Second Home program but aimed more at attracting active skilled workers than retirees.

In Singapore, the Ministry of Trade and Industry and the Ministry of Manpower launched the M-SEP scheme, which gives firms some flexibility to temporarily hire S Pass and Work Permit holders above their existing dependency ratio ceiling. Eligible firms can obtain additional S Pass and Work Permit approvals up to 5% of their base workforce headcount, subject to a cap of 50 workers per firm and fulfillment of two conditions.

With the Top Talent Pass Scheme introduced in October 2022, the Government of the Hong Kong Special Administrative Region of the People's Republic of China government seeks to attract high-income workers and graduates from the best universities in the world. It requires an annual income of 2.5 million Hong Kong dollars ($320,000) or a degree issued from one of the world's top 100 universities. Hong Kong, China also removed some requirements for certain schemes, such as the labor market test for new applicants to the

General Employment Policy Scheme and the Admission Scheme for Mainland Talents and Professionals, and is planning to relaunch a suspended scheme for investors to attract new capital. However, international presence fell following the long-lasting entry restrictions and quarantine rules in Hong Kong, China, and applications to schemes are yet to rebound. For example, only 13,500 applications to the General Employment Policy Scheme were approved in 2022, 300 less than in 2021 and three times less than in 2019. The decline of foreign labor force also showed in less skilled activities, as foreign domestic helpers fell from 400,000 to 340,000 between 2019 and 2021.

1.5 International Student Mobility to and from Asia

Overall, the share of Asian students among internationally mobile tertiary students was still on an increasing trend in 2020 (Figure 1.14). However, the respective weights of origin countries changed over the past 10 years. Reflecting, to some extent, demographic changes, the share of Japan has decreased continuously since 2000, and that of the Republic of Korea peaked in 2006. The number of Chinese students abroad was still on the rise in 2020, but by only 3%, half the annual rate of the previous 10-year period. The PRC's weight peaked in 2018 at 17.5% and declined in 2019 and 2020. At the subregional level, East Asia, which was the main driver of Asia's growing weight in international student mobility at the turn of the century, saw its share decline since 2013 to return in 2020 to its 2005 share of about 20%.

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Figure 1.14: **Share of Outbound Internationally Mobile Tertiary Students, by Region of Origin, 1998–2020**
(%)
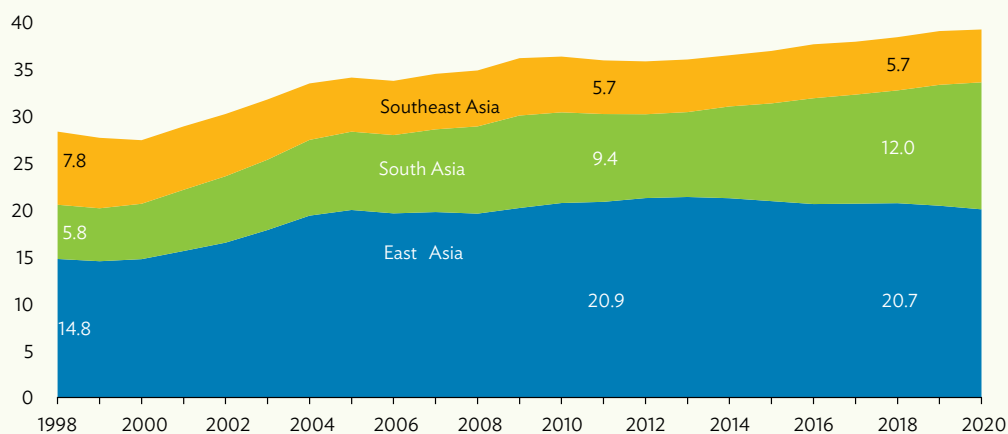
Source: UNESCO Institute for Statistics.

South Asia has taken over as the main driver of Asia's growth in international student mobility since 2013 and saw its share rise from 9.0% to 13.5% in 2020. This was led by Indian internationally mobile students who were more than half a million enrolled in tertiary institutions abroad in 2020, up from about 200,000 in 2013. Besides India, most other countries of South Asia witnessed an increase as well. In particular, the number of international students from Nepal tripled over the period to 95,000.

The most recent data here refers to 2020, but some information is available on student mobility in 2021 and 2022 that indicate a sustained rise of Indian students' departures for higher education abroad. According to the Ministry of Education, more than 3 million Indian students left for tertiary education abroad between 2014 and 2022, of which 750,000 departed in 2022 only. In terms of countries of destination, the universities of the United Arab Emirates hosted 82,000 Indian tertiary students in 2022, and the United Kingdom delivered 81,000 student entry clearance visas to Indian citizens in 2021 and 140,000 in 2022.

Asia has long provided the majority of international students to Organisation for Economic Co-operation and Development (OECD) countries. In 2020, almost 60% of internationally mobile students in the OECD came from Asia (Figure 1.15), 6 percentage points more than in 2013. The two main Asian origin countries, the PRC and India, comprised half of the region's share.

Figure 1.15: **International Students in the OECD, by Region of Origin**
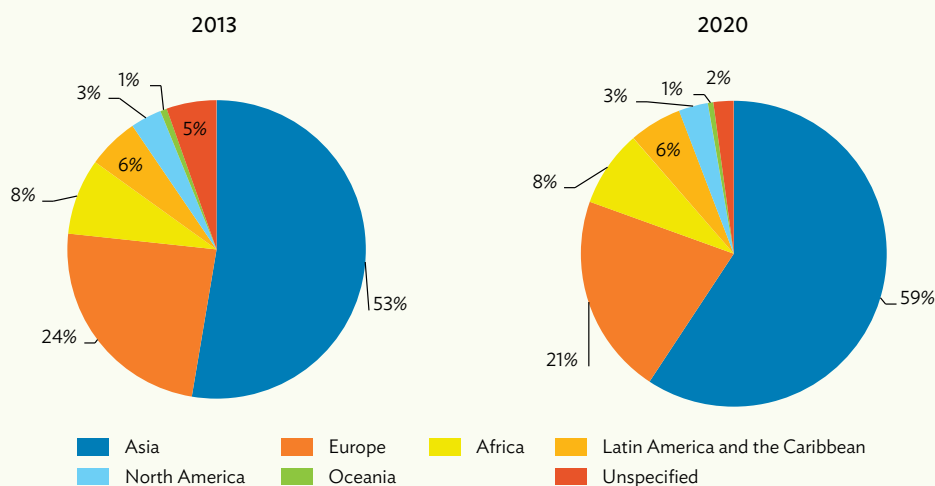
OECD = Organisation for Economic Co-operation and Development.

Note: For comparability reasons, data in 2013 include data from all OECD member countries in 2022, to the extent available.

Source: OECD Education at a Glance Database, 2022.

International students from India are more likely than international students overall to stay in the host country (OECD 2022). In contrast, in most countries, Chinese students have a lower stay rate than the overall international student population.

Data from the United States show that Indian students are more likely than Chinese students to remain in the country for an initial work experience. Indian nationals also have long accounted for the bulk of direct transitions from a study permit (F-1) to a temporary high-skilled permit (H-1B)—60% of such transitions in 2019, up from around 40% in 2010. By contrast, at their peak over the past decade in 2015, Chinese nationals made up 31% of direct transitions, and in 2019 only 23%. Chinese students in the United States outnumbered Indian students over the past decade by a factor of two or three.

1.6 Remittances

Despite the ongoing downside risks, global remittance inflows are expected to increase to $794 billion, representing a moderate growth of 1.7%, in 2022. A strong surge is evident in the remittance inflows to low- and middle-income countries with an estimated growth of 4.9% in 2022. Among them, the highest regional growth is forecasted in Europe and Central Asia. While 3.7% growth is expected in East Asia and the Pacific (excluding the PRC), South Asia shall see 3.5% remittance growth. According to Ratha et al. (2022), remittances have played an increasing role as the largest source of external finance to low- and middle-income countries in recent years (since 2017), compared to other external finances—i.e., foreign direct investment, portfolio investment flows, and official development assistance.

Figure 1.16 shows the past decade trend of remittance inflows to Asia and the Pacific. The majority of the region consists of developing and middle-income countries. The growth of remittance inflows is expected at 4.6%, bringing the total to approximately $340 billion in 2022. The share of Asia and the Pacific has stayed constant at around 43% of the total global inward remittance flows. The causes of the 10% rebound in global remittance inflows in 2021 include (i) a post-COVID-19 recovery of migrant workers' income and employment due to gradual reopening of many sectors and the possibility of international migration and (ii) migrant workers' intention to send money back home to help their families during the economic downturn. Remittance inflows are expected to grow more moderately in 2022 relative to 2021. The rebound in remittances in Asia and the Pacific was less pronounced in 2021 but looks to rise more steeply in 2022 than in 2021, due to more expanded opportunities for work abroad by Asian and Pacific workers. Further explanatory factors for this change are (i) inflation that adversely affects migrants' real incomes and (ii) depreciation of many Asian countries' currency against the United States dollar, which caused a decline in the dollar valuation of remittance flows.

Figure 1.16: Global Remittance Inflows, 2012–2022
($ million and %)
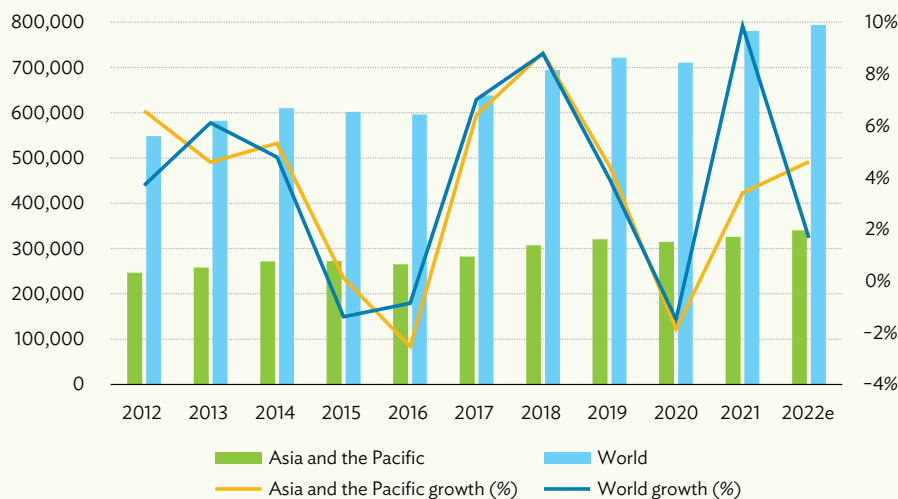
e = estimate.

Sources: KNOMAD database, 2022, and author's calculation.

1.6.1 Remittance Trends in Subregional Asia

Despite emerging socioeconomic and geopolitical challenges, remittance inflows to Asia and the Pacific are expected to stay robust in 2022. A continuous increase in the cost of living may affect consumer demand and real income level, which could dampen remittance inflows. Nonetheless, given the gradual economic recovery in 2021 and 2022, the growth of remittance inflows to the region is expected to increase by 1.2% from 2021 to 2022. From Figure 1.17, Central and West Asia demonstrated the highest growth at 12.3%, followed by South Asia (6.2%) and Southeast Asia (3.9%). However, some subregions still expect a decline in remittances. The negative growth in East Asia could be explained by a drop in remittance inflows to the PRC. For the Pacific region, the COVID-19 restrictions were still a challenge to the subregion's economic growth as well as the remittance inflows. This is because this subregion relies on the tourism industry as a major source of income.

Figure 1.17: Change in Remittance Inflows, 2021–2022 (%)

	Central and West Asia	South Asia	Southeast Asia	East Asia	The Pacific	Oceania	Asia and the Pacific
■ 2021	20.4	4.3	3.4	−8.0	30.5	−29.6	3.4
■ 2022e	12.3	6.2	3.9	−3.1	−5.8	−18.9	4.6

e = estimate.

Sources: KNOMAD database, 2022, and author's calculation.

As for the remittance share by subregions (Figure 1.18), South Asia continued to receive the biggest share of total regional remittance inflows at 39%, followed by Southeast Asia (24%) and East Asia (19%) in 2022. First, the changing situation in the United States affected remittances due to the gradual economic recovery, vaccine availability, and increasing wages. Remittances flow to Asia from the United States, particularly to the South and Southeast Asia subregions. Second, the share of East Asia dropped from 21% in 2021 to 19% in 2022. The expected decline in remittances to the PRC of 4% in 2022 is due to the country's "zero COVID policy," which prevented migrant and emigrant workers from traveling, as noted previously. East Asia's currency depreciation is another reason that explains a decline in

the United States dollar value of remittances. Third, the share of remittance inflows in Central and West Asia increased from 16% to 18%. Significant record money transfers flowed from the Russian Federation to Central Asia (ADB 2023); the Russian ruble appreciated against the United States dollar by the end of 2022, which led to higher dollar valuation of remittance flows to the subregion. On the other hand, the Pacific's regional share of remittance inflows was among the smallest, accounting for only $1.2 billion in 2022. The Pacific region also saw a decline in 2022; this may be related to the border closures and lockdowns in important Oceania destinations for workers from these countries. The decline has important implications because the subregion relies heavily on remittances. Remittances are among the most important sources of external financial resources in the Pacific region (ADB 2023).

Figure 1.18: Share of Remittance Inflows to Asia and the Pacific, by Subregions *(%)*
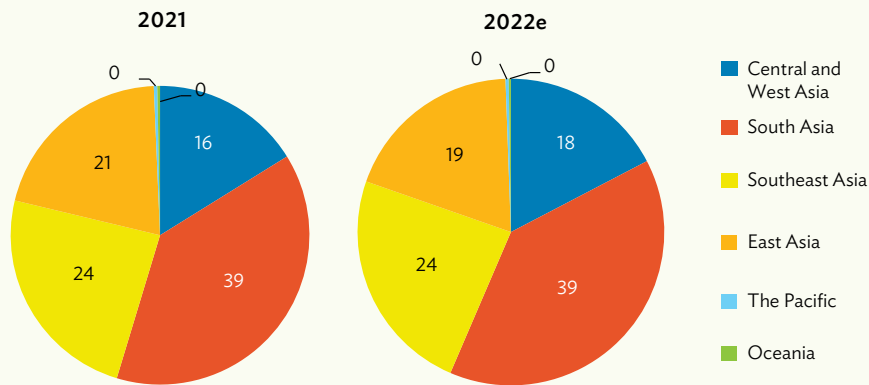
Sources: KNOMAD database, 2022, and author's calculation.

In absolute terms, India continues to hold the biggest share of total regional remittance inflows to Asia and the Pacific at 29%, followed by the PRC (15%) and the Philippines (11%) in 2022. Among the top 10 countries by share of inward remittances, Uzbekistan ranks seventh, with 4% of total regional remittance inflows in 2022. An impressive growth of the inflows to the country is shown at 47% year over year. This is consistent with the previously mentioned trend of increasing remittance inflows to Central Asia from the Russian Federation.

In terms of remittances as a share of gross domestic product (GDP), many countries in the Pacific region remain in the top ranking. Figure 1.19 shows the remittance inflows as a share of GDP in percentage terms for the top 20 countries in Asia and the Pacific, in comparison to the selected countries in Asia with a sizable economy—e.g., India, Indonesia, and the PRC. Tonga maintains its top rank as remittances contributed almost 50% of its GDP. In India, on the other hand, remittances only contributed about 3% of GDP despite the country having the highest value of remittances received. Pakistan and Sri Lanka remain in the top ranking of remittance recipients despite the turbulence in their economies in 2022. Recognizing the significant contribution of the remittances to the economies, the governments have provided support and incentives for migrant workers to transfer remittances through formal channels. For example, Pakistan launched the Sohni Dharti Remittance Program in 2021 with an award incentive for cash-back points for every remittance transaction made. The government also allows nonresident

Pakistanis to open digital bank accounts via the program called Roshan Digital Account. The Central Bank of Sri Lanka launched the Incentive Scheme on Inward Workers' Remittances Program to offer the incentive of an additional Sri Lanka rupees for each United States dollar remitted in December 2021, on top of SLRs2 per dollar given earlier in December 2020. The central bank also set up a ceiling for transaction costs on migrant remittances up to a certain limit (ADB 2023). Nonetheless, although the remittances showed robust performance in Pakistan and Sri Lanka in 2021, both countries would expect declines of remittance inflows, resulting from economic turbulence, in 2022.

Figure 1.19: **Remittances as a Share of Gross Domestic Product (%)**
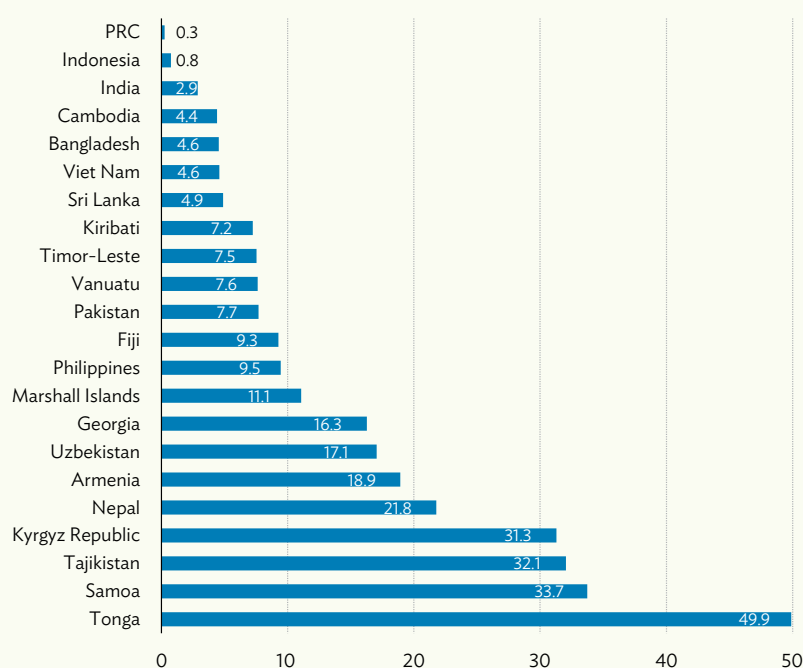
PRC = People's Republic of China.

Sources: KNOMAD database, 2022, and author's calculation.

Figure 1.19 implies the degree of economic reliance on the remittances in each country. Many smaller countries in the Pacific and Central Asia have relied heavily on remittances for their economic growth and prosperity.

1.6.2 Costs of Remittances

Despite the increasing trend of global remittance inflows and an increasing adoption rate of digital finance and fintech for digital remittance services, the costs of remittance transfer remained high in 2022. Globally, the average cost of sending $200 was 6% in the second quarter of 2022 (World Bank 2022). The most expensive—but still popular—channel for remittance transfer was banks (over-the-counter transactions) at a cost of 11% in 2022. Other service providers such as post offices and money transfer operators have average fees of 6.5% and 5.2%, respectively. Mobile banking and mobile

operators continued to be the most cost-effective channel for sending remittances with a fee of 3.5%. Unfortunately, the transactions by this digital channel accounted for less than 1% of total transaction volumes (Ratha et al. 2022). This tiny share could be a result of inadequate digital literacy, lack of digital infrastructure, and the difficulty migrant workers have complying with bank requirements. For example, to open a mobile banking or digital bank account, migrant workers must verify their official identifications or even biometric identifications in some cases. Moreover, due to new service providers' difficulty complying with anti-money laundering/combating the financing of terrorism regulations, which limit their access to correspondent banks, digital transactions in the remittance markets are smaller and less competitive. To promote the digital channel for remittance transfer will require investments in remittance infrastructure and greater use of technologies. It is crucial to install a proper level of infrastructure that facilitates interoperability of payment systems and a solid foundation for cross-border money transfer. In addition, digital literacy and expanding knowledge transfer on digital financial platforms will accelerate the digital usage among migrant senders and improve financial inclusion of migrant workers, their families, and their communities. Greater transparency, e.g., a function of remittance cost comparison, will also help to reduce remittance costs.

Figure 1.20 compares the costs of sending remittances of $200 across different regions. Fees have been cheapest in South Asia for the past 3 years (2020–2022). The gradual reduction of average remittance cost is evident in East Asia and the Pacific region from 7.1% in 2020 to 5.7% in 2022. This progress may come from an increasing rate of digital service adoption in East Asia and Southeast Asia for sending money across the border.

Figure 1.20: Remittance Costs for Sending $200, by Region, 2020–2022 (%)

	Global Average	South Asia	Latin America and Caribbean	Europe and Central Asia	East Asia and Pacific	Middle East and North Africa	Sub-Saharan Africa
Q3 2020	6.7	4.98	5.83	6.51	7.05	7.51	8.47
Q3 2021	6.25	4.49	5.72	6.15	6.21	6.56	8.27
Q3 2022	6.30	4.94	5.64	6.89	5.7	6.15	8.46
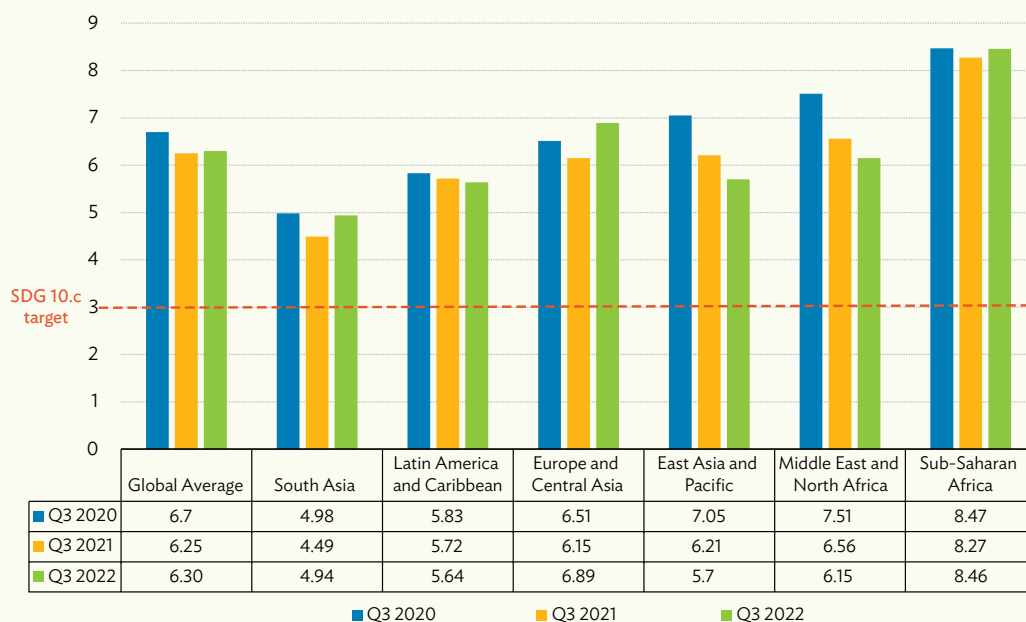
Q = quarter, SDG = Sustainable Development Goal.

Note: The SDG 10.c target is to reduce the transaction costs of migrant remittances to less than 3% by 2030.

Source: World Bank's Remittance Prices Worldwide Database, September 2022.

1.7 Summary

The last particularly severe COVID-19 waves, in terms of fatalities, occurred in early 2022. Since then, most entry bans and quarantine measures were soon lifted, except in the PRC, where they lasted until 2023. This relaxation of restrictions allowed many labor migration channels to return to pre-COVID-19 levels and, in some cases, to exceed them. In particular, labor migration between some South Asian countries and GCC countries soared and returned to well above its 2019 level. Early 2023 figures still indicated relatively high levels, albeit with signs of a slowdown.

The post-COVID-19 increase included a catch-up demand for low-skilled labor migration, which in turn led to some decreases in women's participation in Asian labor migration, halting a previously observed upward trend. India strengthened its position as a leading supplier of highly skilled labor to many Western countries, partly due to the obstacles to migration to and from the PRC.

The increase in migrant worker deployments from Asia in 2021 and 2022 resulted in an increase of remittance flows to Asian countries. With recovered jobs and income, migrant workers were able to help their families again. However, inflationary pressures and currency depreciations slowed the growth of remittance flows in 2022. In the beginning of 2023, currencies seem to have become stronger and more stable, giving hope for 2023 remittance levels. The costs of remittances remain an issue that needs to be addressed. In all regions of the world, these costs are far from the 3% Sustainable Development Goal target, although South Asia and East Asia and the Pacific have the lowest regional costs.

The state of the world holds many uncertainties, including wars (current and potential), threats to the environment, supply disruptions (including food supply and prices), and financial instability. Any of these could again severely impact labor migration to Asia, highly skilled and less skilled. However, the disruption caused by the COVID-19 pandemic is largely behind us as far as labor migration trends and policies are concerned. Remaining difficulties for migrant workers in early 2023 include the consequences of the Russian invasion of Ukraine, relatively slow global growth, and tensions on prices.

References

ADB. 2023. *Asian Economic Integration Report 2023*. Manila: Asian Development Bank. https://aric .adb.org/aeir2023 (accessed 8 February 2023).

ILO. 2022. Measuring Labour Migration in ASEAN: Analysis from the ILO's International Labour Migration Statistics (ILMS) Database. Geneva: International Labour Organization.

OECD. 2022. *International Migration Outlook 2022*. Paris: Organisation for Economic Co-operation and Development Publishing. https://doi.org/10.1787/30fe16d2-en

Parkaran, K. 2023. New Malaysian PM Could Mean Good News for Bangladeshi Workers. Asia News Network. January 16. https://asianews.network/new-malaysian-pm-could-mean-good-news -for-bangladeshi-workers/

Ratha, D., E. J. Kim, S. Plaza, E. J. Riordan, V. Chandra, and W. Shaw. 2022. Migration and Development Brief 37: Remittances Brave Global Headwinds. Special Focus: Climate Migration. Washington, DC: KNOMAD-World Bank. https://www.knomad.org/publication/migration-and-development -brief-37 (accessed 20 January 2023).

Weeraratne, B. 2023. Relaxing the Ban on Female Migration: Will It Help Solve the Economic Crisis in Sri Lanka? *Migration Policy Practice* 12(1): 4–10. https://publications.iom.int/books/migration -policy-practice-volxii-number-1-february-2023

World Bank. 2022. Remittance Prices Worldwide Quarterly. Issue 43. https://remittanceprices .worldbank.org/sites/default/files/rpw_main_report_and_annex_q322_final.pdf (accessed 20 January 2023).

Appendix

Figure 1.A1: Workers by Skill Category, Selected Sending Countries, 2015–2022

FY = financial year.

Source: National data.

Table 1.A1: Overseas Filipino Workers, 2012–2022
(’000)

	2012	2013	2014	2015	2016	2017	2018 p	2019 p	2020 p	2021 p	2022 p
Land-based	1,435	1,469	1,431	1,438	1,670	1,595	1,507	1,649	333	397	820
Sea-based	367	367	402	407	443	449	482	508	217	346	385
Total	1,802	1,836	1,833	1,844	2,112	2,045	1,989	2,157	550	743	1,206

p = preliminary data.

Source: International Labour Organization , request to the Department of Migrant Workers, Strategic Planning and Management Service.

New Profiles of Demand in the Gulf Cooperation Council and Possible Impact on Labor Migration from Asia

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2.1 Introduction

The six Gulf Cooperation Council (GCC)[1] countries are among the largest recipients of migrants[2] worldwide: they hosted 11% of the world's total migrant stock in 2019 (United Nations, Department of Economic and Social Affairs, Population Division 2019). At the same time, several of these countries have high levels of unemployment among their nationals: the rate reached 15.4% in the third quarter (Q3) of 2020 in Saudi Arabia, for example, with 31.4% among Saudi women and 17% among young Saudis aged 15–24, according to Saudi data. Since the 1980s, GCC countries have attempted—without much success—to localize their workforces, spurred by the fiscal unsustainability of maintaining a large public workforce to accommodate young citizens alongside high levels of nationals' unemployment and the presence of large numbers of migrant workers. Another motive for these workforce localization efforts has come from concerns of a political nature, touching upon fears of "demographic imbalance" (more foreign residents than citizens in four of the six countries).

More recently, the politically troubled context of the 2010s, the destabilization of many Arab regimes during the Arab uprisings and the emergence of civil and regional conflicts, the oil prices swings, and uncertainties on the future of the hydrocarbon rent forced the most exposed of the Gulf states (Oman, Bahrain, and Saudi Arabia) to radically reform their economic and social models, soon followed by smaller and wealthier Kuwait, the United Arab Emirates (UAE), and Qatar. Gulf states now seek to lower the dependency of the region's citizens on public spending, diminish dependency on hydrocarbon revenues, and reduce reliance on foreign labor. Economic and social reform master plans (e.g., UAE Vision 2021, Qatar National Vision 2030, Saudi Vision 2030, New Kuwait Vision 2035) now guide the implementation of large-scale labor nationalization and other migration-related measures in the six countries.

In the light of recent changes in the size and structure of the workforce in Gulf states in this context, this chapter explores the possible impact of migration reform measures on future demands for foreign workers in the region. A particular emphasis is put on Asian workers, as the GCC-Asia migration corridor is the largest migration corridor between developing economies, and the large majority of migrant workers in Gulf states comes from Asia, especially from South Asia (Table 2.1). Recent changes

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[1] The six member states of the GCC: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

[2] In this chapter, we use the term "migrant" to refer to foreign nationals. In Gulf countries, the definition of international migrant is citizenship based, and the very notion of immigration/immigrant is rejected. "Expatriates" are considered as temporary contract workers and referred to as foreign/non-nationals (non-Emirati; non-Kuwaiti). This chapter refers to "expatriates" as "foreign workers." Naturalizations are rare, and the birthright for citizenship and maternal transmission of citizenship do not apply. Therefore, a share of the foreign residents, born in these countries but not naturalized, are not "migrants" according to the International Labour Organization/United Nations definition, which takes as a criterion the change of usual residence (ILO 2018).

in GCC economic policies and contexts, as well as labor reforms in the region, are thus of crucial importance for Asian countries and will impact future migration from the region.

The chapter will first present the current transformations of GCC demographics and economies. Against this backdrop, it will then provide analysis of the migration dynamics and the labor-related policies adopted by Gulf states' governments over the last decade (Gulfization of labor, shifts in demand for skills, introduction of skill recognition frameworks, policies directed at highly skilled workers, and shifts in migrants' origin countries) and assess their expected impact on future demand for foreign workers, especially for Asian workers. The chapter builds on statistics produced by Gulf destination countries.

2.2 Transformations of Gulf States' Demographic and Economic Contexts since 2010

This section outlines the main sociodemographic characteristics of migrants and migrant workers in the region. Using rare data disaggregated by country and region of origin, a special emphasis is put on the situation of Asian workers in some Gulf states. The section then describes the recent patterns of Gulf national populations' sociodemographic change, to explain the urge for economic and labor reforms ongoing in all countries in the region.

2.2.1 Demographic Trends

As of 2020,[3] foreign nationals made up 52% of the total GCC population. Their share ranged from 39%–40% of the resident population in Oman and Saudi Arabia to 87%–88% in Qatar and the UAE (Table 2.1).

The GCC-Asia migration corridor, as mentioned previously, is the largest South-South corridor, and the six countries of the GCC are the main destination for Asian migrant workers. Of the 12.5 million workers deployed from Pakistan to work abroad between 1971 and 2022 after registering with the country's authorities, 95% to 98% were concentrated in the Gulf countries; 50% to 60% went to Saudi Arabia and around a third to the UAE (BEOE n.d.). Similarly, 77% of the 14.8 million Bangladeshis recorded by government services for migration abroad (1976–2022) went to the Gulf (Bangladesh Ministry of Expatriates' Welfare and Overseas Employment Bureau of Manpower, Employment and Training 2023).

The bulk of migrants in the six GCC countries were effectively from Asia (72%) in 2019, making up 58% of all migrants in Kuwait and 92% in Oman, and making up more than half (65%) of the total populations in the UAE and Qatar.[4] Bangladeshis, Indians, Pakistanis, Filipinos, and Sri Lankans made up the bulk of Asian migrants in the region (80%) and represented 46% of all migrants. Indians alone made up 38% of Asian migrants and 28% of all migrants (Table 2.1). This indicates the importance of Asian migration for Gulf states as well as the relevance of economic and migration policy changes in Gulf states for Asian sending states.

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[3] Last year available. The UAE and Qatar do not publish data disaggregated by nationality (nationals and non-nationals), and no information was available after that date to estimate the national and foreign populations in the two countries.

[4] Gulf states do not disaggregate statistics on migrants by country of citizenship or by region of origin, except to a certain extent in Kuwait, Oman, and Bahrain. Since Asian nationals are dominant numerically among foreign workers everywhere in the region, their specific migration trends will be reflected in the aggregated results.

Table 2.1: Estimates of the Figures of International Migrants (Selected Nationalities), by Country of Residence in the Gulf Cooperation Council, 2019–2020

Country of destination / Source	Bahrain (1)	Kuwait (1, 3)	Oman (1, 4)	Qatar (1, 2, 5)	Saudi Arabia (1, 2)	UAE (1, 2)	Total GCC (est.)
Bangladesh	145,731	252,839***	690,407	263,086	1,246,052	1,079,013	3,677,128
India	282,821	818,768***	748,461	698,088	2,440,489	3,419,875	8,408,502
Pakistan	58,519	75,224***	257,105	90,000	1,447,071	981,536	2,909,455
Philippines	39,050	213,197***	49,243	200,000	628,894	556,407	1,686,791
Sri Lanka	7,872	104,907***	23,063	100,000	516,256	118,708	870,806
Total Asians	650,996	1,729,171	2,016,851	1,828,669	9,167,287	6,555,424	21,948,398
Total foreign nationals (est. 2020) (1)	758,941	3,374,587	1,858,516	2,495,679*	13,583,286	8,066,414*	30,137,423
Total population (est. 2020) (1)	1,472,204	4,816,592	4,578,016	2,833,679	35,013,414	9,282,410	57,996,315
% expats in total population (est. 2020)	51.6	70.1	40.6	88.2**	38.8	86.9**	52.0**

GCC = Gulf Cooperation Council, UAE = United Arab Emirates.

* Gulf Labour Markets and Migration Programme estimates, based on data published by National Institutes of Statistics (GLMM 2022).
** Ratio is calculated on the basis of population estimates.
*** Includes workers only.

Sources:
(1) Gulf Labour Markets and Migration Programme (2022).
(2) United Nations, Department of Economic and Social Affairs (2019).
(3) Central Statistical Bureau (2022).
(4) National Center for Statistics and Information, Oman (2019).
(5) Priya D'Souza Consultancy (2019).

The gender distribution of migrants by country of origin is polarized. In Oman, where on average the sex ratio was 5 men per woman among foreign workers in the late 2010s, the ratio reached beyond 10 men per woman among Bangladeshis and Pakistanis and beyond 6 men per woman for Indian residents. As of 2018, migrants from Sri Lanka and the Philippines were mostly women (GLMM 2018a). In 2018, in Kuwait, 30% of all foreign workers were women (a sex ratio of 330 men per 100 women); however, among Asian foreign workers alone the figures showed 27% women (or 370 men per 100 women). Women made up 80% of Filipino and 63% of Sri Lankan foreign workers, as compared to 3.4% among Bangladeshis and 15% to 20% among Pakistani and Indian nationals.[5]

Regarding workers, data available for Kuwait indicate that Asian workers made up 71% of all foreign workers in the country in 2022; sector-wise, Asian workers composed 59% of the private sector's migrant workforce and 98% of all domestic workers in that country. The domestic sector employed 78% of Asian women workers and 31% of Asian men, while 67% of Asian male workers were employed in the private sector,[6] especially in construction (15%) and in "wholesale and retail trade" activities (17%) (PACI 2022).

Data only available for Dubai, Kuwait, and Bahrain in the 2010s suggest that Westerners and Arab nationals were more likely to fill highly skilled occupations, as opposed to a minority of Asians working in such occupations (De Bel-Air 2021). In Dubai in 2019, 28% of Asian workers were classified in

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[5] Author's calculations based on Public Authority for Civil Information website data for selected nationalities: https://www.paci.gov.kw/stat/StatIndicators.aspx.

[6] Annual figures of residence permit holders by purpose of permit and group of countries of origin from Central Statistical Bureau (2023).

the three upper categories of occupations,[7] as compared to 74% of Arab workers and above 85% for Europeans and North Americans. Half of Asian workers were in low-skilled and middle-skilled blue-collar professions[8] (versus only 7% among non-GCC Arab workers) (Dubai Statistics Center 2019). In Kuwait in 2018, only 7% of all Asian workers were in the three upper occupation categories (versus 22.4% among Arab workers), and half were in low- and middle-skilled professions. Data by selected country of origin emphasize the high segregation of Asian workers by gender and sector/activity. Three quarters of Sri Lankan migrants and 62% of Filipinos, who were mostly women, were employed in the domestic sector that year.[9] Further, activities in the domestic sector are themselves gender segregated. Data on domestic workers by occupation for 2022 indicated that most female domestic workers were categorized as "Cleaner" (98%–99% in Bahrain and Saudi Arabia), while 69% of male domestic employees were private drivers in Saudi Arabia; 27% were servants and 2% cooks. A similar distribution of male domestic workers was found in Bahrain (GAStat 2022a; Labour Market Regulatory Authority 2022).

Box 2.1: **Demographics of Gulf Cooperation Council Countries**

The persistence of high fertility levels until the 1990s sustained the growth of Gulf states' national populations for decades. Yet, the delay in the age at first marriage and progressive changes in the timing and intensity of fertility among Gulf Cooperation Council citizens (De Bel-Air 2019b) may explain the progressive slowdown of population growth observed since the 2000s (Table 2.A1).[a] Consequently, the young generations' demographic pressure started loosening, but it remains strong. In 2021, the share of young nationals aged 15 to 24 made up 16% of the total national population in Oman (down from a high of 27% in the mid-2000s) and 18.3% of the national population in Kuwait,[b] a level characterizing lower middle-income countries (United Nations, Department of Economic and Social Affairs, Population Division 2022). Young Saudis aged 15 to 24 grew at a rate of 3% annually between 2004 and 2010 (+700,000 Saudis in the age group in 6 years). The growth rate was halved during the 2010s.

Despite such a demographic expansion, Gulf countries achieved significant progress in youth education over the 2010s. As young generations accessed tertiary education in ever larger numbers during the last decade, young and adult populations' education levels increased notably, and female citizens confirmed their educational superiority over males (Table 2.2). As of 2018, 89.3% of high school graduates attended university in Saudi Arabia, an estimated 325,547 students (Knight Frank 2021). Interest in scientific majors, especially STEM subjects (science, technology, engineering, and mathematics), also grew significantly during the decade. In public universities, where most students are Saudis, "the take up of Business Management as a major has increased by 61% in the four years to 2018, where this major accounted for 30.1% of all student enrolments, up from 19.8% in 2014. The Natural Sciences, Mathematics and Statistics major group recorded a 55.9% increase in the total number of students enrolled to reach 126,123 students as at 2018, accounting for 9.1% of total enrolment" (Knight Frank 2021: 8).

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[a] Naturalizations are very rare in Gulf states, and national populations' growth rates are mostly driven by the excess of births over deaths.

[b] National Statistical Offices' data for Bahrain, Kuwait, Oman, and Saudi Arabia. Qatar and the United Arab Emirates do not disclose figures of their total populations disaggregated by nationality.

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[7] Skill levels 3 and 4, or those classified in the three highest categories of occupations in International Standard Classification of Occupations-08 (ISCO-08) classification: the "Managers," "Professionals," and "Technicians and associate professionals" (ILO 2008).

[8] Skill level 2 ("Craft and related trades workers," "Plant and machine operators, and assemblers") and level 1 ("Elementary occupations"). See ISCO-08 classification (ILO 2008).

[9] Author's calculations based on Public Authority for Civil Information website data for selected nationalities: https://www .paci.gov.kw/stat/StatIndicators.aspx.

Despite the lack of sociodemographic and labor data disaggregated by migrants' country of citizenship or region of origin, these examples shed light on Asian migrant workers as essential actors in Gulf states' economies and Gulf citizens' well-being. Conversely, however, the concentration of Asian workers and their gendered segregation in specific sectors suggests these workers' dependence on specific sectoral or activity outlets in Gulf states' labor markets, such as domestic services for men as well as women, and construction or trade for Asian men.

Large numbers of migrants left Gulf countries due to the coronavirus disease (COVID-19) pandemic and the economic downturn, the wage cuts and non-payments, as well as the layoffs that followed. Bahrain and Kuwait witnessed respectively a 3% and 4% decrease in the number of their foreign workers. During 2020, 130,000 foreign workers left Kuwait; Oman lost around 280,000 immigrants that year alone, a 16% decrease of the migrant population in 1 year. However, the slowdown in the growth of foreign populations predates the beginning of the COVID-19 pandemic, especially in Qatar, Oman, and Bahrain. The pandemic accentuated the deceleration in the numbers of foreign residents, which was observed since 2016–2017 (Table 2.A1). In 2022, a hike in the numbers of foreign workers was witnessed in every country in the region. Time will tell whether this surge marks the beginning of a long-time trend toward resuming migration inflows or a phase of "catching up" of recruitments that were frozen during the COVID-19 period.

Table 2.2: Evolution of the Share of Population Aged 15 and Above Holding a University Degree, by Nationality (Nationals/Non-Nationals) and Sex (Selected Countries, 2010; 2020)

			2010 (%)	2020 (%)
Bahrain	Nationals	Men	7.3	24.3
		Women	9.2	26.4
	Non-nationals	Men	8.1	18.7
		Women	9.0	21.5
Oman	Nationals	Men	7.1	16.2
		Women	6.9	22.6
	Non-nationals	Men	10.1	9.8
		Women	18.6	14.7
Qatar	Nationals	Men	17.7	42.8
		Women	22.8	37.4
	Non-nationals	Men	11.0	28.1
		Women	24.5	42.1
Saudi Arabia	Nationals	Men	11.8	25.6*
		Women	11.4	29.1*
	Non-nationals	Men	10.7	25.3*
		Women	14.1	21.7*

* Labor Force Survey, Q1 2021.

Notes:
No data were available for the United Arab Emirates. For Kuwait, no data were available for 2010; for 2020, data were inconsistent (high percentage classified as "others/undefined").

Diplomas levels 6, 7, and 8, International Standard Classification of Education 2011 classification.

Sources: Author's calculations from national census data, given dates.

2.2.2 Economic Transformations

Demographic and education-related transformations of Gulf societies over the 2010s are reflected in the region's economic overhauls during the period. These were triggered by mounting unemployment levels among citizens in the 1990s and 2000s (20% and beyond everywhere among the 15–24 age range [Chaaban 2010], especially among women and graduates [AlMunajjed 2010]). This growing unemployment was attributed to GCC nationals' past high demographic growth rates, to the persistent mismatch between education and employment, which prevented citizens from thriving in the increasingly productive and globalized Gulf private sectors,[10] and to governments' attempts at downsizing their public sectors and expenditures, especially in Saudi Arabia, Oman, and Bahrain. The fall of oil prices of 2014–2016, linked to geopolitical tensions in the region and at home (Gause 2015), further stressed the urgency of socioeconomic reforms.

Since the late 2000s, and even more in the past decade, reform measures seek to diversify Gulf economies and alleviate their vulnerability to the volatility of hydrocarbon revenues through strengthening and expanding productive private sectors. Also at the top of the agenda is decarbonizing economies and promoting renewable and alternative energies, creating knowledge-based economies through investing in education, and fostering innovative, high value-added industries, especially in information technology. Diversifying economies and putting research, development, and innovation at the heart of internationally competitive, high value-added economies means not only "creating new jobs capable of absorbing the fast-growing and increasingly well-qualified pool of entrants into local labor markets" (Coates Ulrichsen 2017: 7). These efforts also aim to make productive employment attractive and rewarding to young nationals to alleviate the sense of entitlement to secure government jobs still prevailing among citizens.

Economies of the region underwent significant transformations in this context. Gulf states seized the opportunity of the high oil prices between 2002 and 2014 to develop infrastructure (roads, power plants, schools, and hospitals)[11] and launch a host of large-scale industrialization projects, ranging from petrochemicals and aluminum to cement and construction products. In 2008, the GCC region already accounted for 12% of global petrochemical production (Coates Ulrichsen 2017).

Seeking to also become world leaders in renewable and alternative energy, Abu Dhabi and Saudi Arabia invested massive amounts of capital in various "green" projects (Coates Ulrichsen 2017). Recent investments include an electric vehicle company and a renewable energy-powered airport being planned for Riyadh (Lucente 2022). Currently, Saudi Arabia and the UAE are regional leaders in the production of renewable energy (Sim 2022). They now use more "green skills" than the average job globally (LinkedIn Economic Graph 2022), which means that the Gulf region is already attracting new skills in this matter.

A large share of the capital accumulation during the oil price boom of the 2000s was also earmarked for investment in high-profile initiatives in higher education and scientific research and development, aiming to produce a well-educated and highly skilled workforce of qualified nationals capable of competing in global labor markets and alleviating systemic problems of domestic unemployment and underemployment (Coates Ulrichsen 2017). About 30 branches of Western higher education institutions have opened in the UAE since the late 2000s, most of them in Dubai International Academic City, which was founded in 2007. Qatar Foundation's Education City opened branches of several prominent

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[10] Bahrain, Kuwait, Qatar, and the UAE joined the World Trade Organization in the mid-1990s, Oman in 2000, and Saudi Arabia in 2005.
[11] On Saudi Arabia: Young (2016).

United States universities, including Carnegie Mellon, a pioneer in artificial intelligence (AI) research and teaching, Georgetown, and Northwestern (Qatar Foundation n.d.). In Oman, 24 private universities opened during the 2000s alone, some of them in partnership with foreign institutions, especially German ones (Coates Ulrichsen 2017). The Saudi Ministry of Education had registered 29 public universities and 38 private universities and colleges operating in the country in 2022, of which 19 public and 34 private were opened since the year 2000 (Ministry of Education, Saudi Arabia n.d.). Gulf states also created hubs for innovation, such as Bahrain's International Investment Park, Qatar's Science and Technology Park, and Saudi Arabia's Prince Abdullah Science Park.

Declining oil prices after 2014 and subsequent deepening budget deficits gave a renewed impetus to the economic reform process. Joining Qatar National Vision 2030[12] and Bahrain Economic Vision 2030, launched in 2008, and UAE Vision 2021, launched in 2010, other far-reaching reform master plans were set in motion after 2016 in Saudi Arabia as Saudi Vision 2030 (Kingdom of Saudi Arabia n.d.), in Kuwait as New Kuwait Vision 2035, and in Oman as Oman Vision 2040 (Oman Vision 2040 Implementation Follow-up Unit n.d.). The Saudi plan is particularly ambitious, "a first step in a radical attempt to change Saudi Arabia's dependence on oil" (Young 2016). Through its primary investment channel, the country's sovereign wealth fund (the Public Investment Fund), the plan targets the following sectors: mining, petrochemical, retail, education, health care, financial services, and construction as well as the emergent manufacturing and tourism sectors. Empowerment of the private sector and digital transformation are transversal objectives (Kingdom of Saudi Arabia n.d.).

The development of AI research and applications was also boosted by the prospect of post-oil transition toward knowledge-based economies. Governments' strategies to that effect were launched in 2019 in Bahrain, Saudi Arabia (creation of the Saudi Data and Artificial Intelligence Authority), and Qatar (National Strategy for AI). In 2020, the UAE adopted the National AI Strategy 2031 and the UAE National Program for Artificial Intelligence. These spurred the setting up of technology hubs and the introduction of AI skills and knowledge of modern technologies in higher education (UNESCO 2020). AI development is underway in Kuwait (*Gulf Insider* 2022), and it is one of Oman's ambitious eight pillars in its Digital Economy Program announced in late 2021 (Prabhu 2021). A number of sectors in the GCC have already changed significantly due to new technologies, including government (through the introduction of e-government), finance (through automation, online banking, and offshoring of back-office tasks), retail (through e-commerce), and transport (through gig economy platforms like Uber and Careem as well as new online delivery services) (Hertog 2019).

Gulf economies recovered quickly from the COVID-19 crisis, partly due to post-crisis sustained international oil demand following the Russian invasion of Ukraine and the partial ban on Russian oil imports. Annual change in gross domestic product (GDP) during 2022 was highest in Kuwait at 8% growth and lowest in Oman at 4.2% growth (EIU 2022). Saudi Arabia, especially, was one of the world's fastest-growing economies in 2022 (Mati and Rehman 2022), displaying an 8.8% annual growth boosted by a 6.2% growth in non-oil activities during Q3 2022. In this context, real estate and infrastructure projects sped up during 2022. As part of its Vision 2030 program for economic diversification, Saudi Arabia had $1 trillion slated for real estate and infrastructure projects, including 1.3 million new homes by 2030, and at least eight planned new cities (*Fast Company* 2022). Among the new cities is the project of a futuristic green city called NEOM that is set to eventually host 9 million people. Saudi Arabia remained the largest construction market in the Middle East region in 2022, and other megaprojects and urban creations from scratch are set to be developed in the next decade (*Al-Monitor* 2023), which will contribute to the digital transformation of the cities (*Arab News* 2023).

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[12] General Secretariat for Development Planning, Qatar (2008).

Despite ample swings in oil prices during 2022 (Kearney 2022), economic forecasts for 2023–2024 anticipate sustained energy market conditions, large-scale investment projects, and rising non-energy exports, especially in Saudi Arabia and the UAE (EIU 2022). Yet, Saudi Arabia's economic growth declined to 5.4% in the fourth quarter of 2022, reflected in a downward revision of the country's growth prospects by the International Monetary Fund (Reuters 2023). The UAE economic outlook also remains positive, with non-hydrocarbon growth to be around 4% in 2023 and to accelerate over the medium term with the implementation of ongoing reforms, according to the International Monetary Fund (Al Fahaam and Mohamed 2022). Nonetheless, GCC economies and international trade are still highly dependent on fuel products,[13] except Bahrain.[14] The share of oil in GDP ranged between 10% in Bahrain and 40% in Kuwait,[15] indicating effective diversification of domestic production, but exports of oil and oil products accounted for over 60% of all merchandise exports in the other five GCC states in 2020–2021 and reached 92% in Kuwait, according to World Bank data.

2.3 Gulf Migration Policies and Changes in Labor Demand

The deep transformations of Gulf economies since 2010 had major impacts on labor dynamics, as economic diversification's prime purpose was to attract nationals to productive employment to alleviate unemployment. In parallel, policies targeting, directly or indirectly, foreign workers and residents in the region aimed to move away from earlier migration regimes, which had been characterized by large numbers of low-skilled workers, and toward smaller numbers of migrants with higher skills. At the same time, like before in the region's history, migration had become a matter of security. The Arab revolts of 2010–2011, which brought down many regimes in the Arab states, wars in Syria and Yemen, and the expansion of radical Islamic movements in the region sparked fears among Gulf ruling regimes of possible spillovers of these conflicts to the region through migrant communities (De Bel-Air 2018a).

After 2011, the priority of Gulf governments was to strengthen their control over the management of the foreign presence. In Saudi Arabia, Oman, and Bahrain, where nationals' unemployment was highest, and in Kuwait and the UAE, two sets of policies were put in place:

(i)   Nationalization of labor: increase the number of nationals in the labor market by transforming the economy and upgrading the private sector's opportunities to match nationals' expectations, as described earlier; reduce reliance on foreign workforce by substituting migrant workers with nationals in an increasing number of sectors and professions; and

(ii)   Securitization of labor migration: strengthen the monitoring of the numbers and skill profiles of foreigners to control the security risks potentially posed by migration (especially, diversify nationalities to ensure that no foreign nationality would largely dominate over others) and mismatches between migrants' skills and employers' demand, while at the same time attracting highly skilled and wealthy foreign workers to diversify the economy.

It is noteworthy that, so far, the priority of policies is economic diversification and nationals' employment, and not limiting the number of migrant workers per se. Only Kuwait has an explicit policy of reducing the share of foreign residents from 70% to 30% of the resident population, based on a law passed in 2020 (*Gulf Business* 2020). The transformations of the Gulf economies and the proactive

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[13] Fuels comprise the commodities in Standard International Trade Classification section 3 (mineral fuels, lubricants, and related materials).

[14] Bahrain and Oman are expected to run out of oil within the current decade, and Oman is expected to run out of gas within the next 20 years (IMF 2016).

[15] Oil rents as a percentage of GDP, World Bank data.

Figure 2.1: Two Strategies to Reform Economies and Labor Markets since 2011
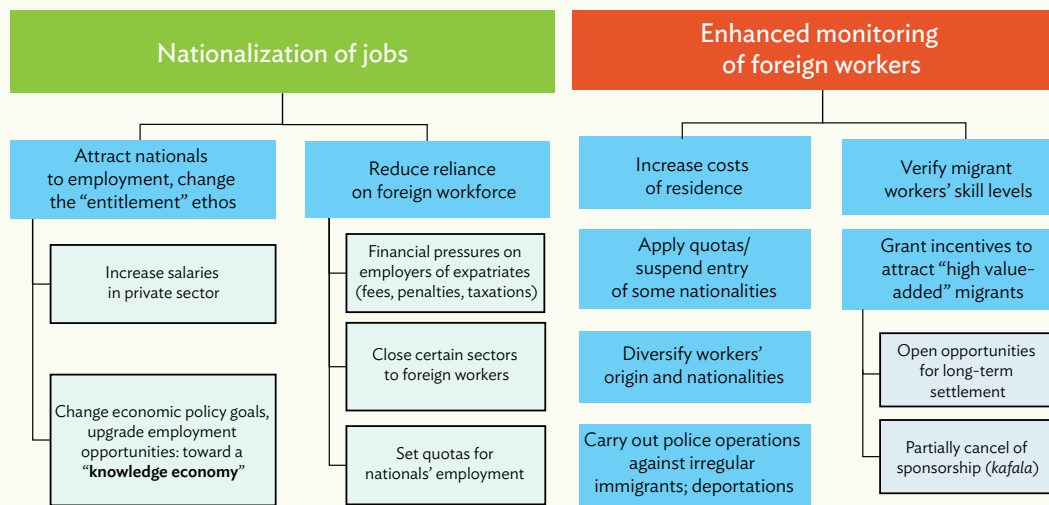
Source: Author's elaboration.

implementation of labor and migration policies now supersede oil price fluctuations as a migration driver. This chapter next discusses the impact of these policies and changing Gulf economies on the labor market and future demand for foreign workers.

2.3.1 Labor "Gulfization" Policies and Challenges

Following inefficient blanket quota-based policies implemented since the 1980s, recent, post-2010 labor localization or Gulfization policies (Saudization in Saudi Arabia, Bahrainization in Bahrain, etc.) target nationals' unemployment and underemployment as a priority, especially among inactive and unemployed women and graduates (De Bel-Air 2015). Policies combine quotas of localization by sector (PRO Partner Group 2019) and profession (MHRSD 2022), labor market incentives to employers, subsidies for raising nationals' wages, labor market analysis, and targeted professional education and training. Policies are constantly revised and targets shift, which makes consistent comparison of nationalization policies between countries impossible.

Saudi Arabia has the most comprehensive and proactive of these policies, called the Nitaqat program. The first version of the program, launched in 2011, underwent many changes, and a new 3-year Saudization plan ("updated Nitaqat") was introduced in December 2021 to increase the Saudization rates gradually on a yearly basis. Nitaqat applies to all entities employing six or more workers. Each company is ranked in a color-coded Saudization range category (currently Red, Low Green, Medium Green, High Green, or Platinum) based on:

(i)   the company's Saudization ratio;
(ii) the company's number of employees (N);
(iii) the company's activity sector, now based on International Standard Industrial Classification Revision 4;
(iv) the wages given to Saudi workers (basic monthly salary of at least SAR4,000, or around $1,070);

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(v)   some characteristics of Saudi employees (gender, region of residence, disability, etc; for instance, a disabled worker will be considered as four workers, provided that the worker's salary is not less than SAR4,000) (Hammad and Al-Mehdar Law Firm 2022);

(vi)   a fixed value of the curve of localization of the economic activity and the range (value M); and

(vii)   an absolute fixed value of the curve of localization of the economic activity and the range per year (value W).

Values M and W by activity sector, as well as the correspondence table between previous and new classifications of activity sectors, are specified in a reference document distributed by the Ministry of Human Resources and Social Development.[16]

The formula used to calculate the limits (minimum percentages) of Nitaqat ranges (R) specific to the company's activity and number of employees is as follows:

$$R = M \log(N) + W$$

For example, in a company active in the "Industry" sector that employs 400 workers and has a Saudization rate of 38.75%, Nitaqat ranges would be set at the following limits:

Range	Calculation for the first year	Result (limits)
Low Green	1.68 * Log (400) + 14.08	24.15
Medium Green	1.87 * Log (400) + 16.87	28.07
High Green	2.08 * Log (400) + 20.47	32.93
Platinum	2.08 * Log (400) + 23.87	36.33

The Nitaqat range of the company for the first year will therefore be Platinum because the Saudization rate of the company (38.75%) is above the lower limit of Platinum range (36.33%).

Color of range	Value of range
Red	R < 24.15
Low Green	24.15 < R < 28.07
Medium Green	28.07 < R < 32.93
High Green	32.93 < R < 36.33
Platinum	> 36.33

Source: Reference document from the Ministry of Human Resources and Social Development. Available in Arabic: https://web.archive.org/web/20210525073523/https://www.hrsd.gov.sa/sites/default/files/182495.pdf.

Each range above the red tier grants privileges and limitations, such as obtaining block visas to recruit foreign nationals, being allowed to renew work permits, and being allowed to amend employees' job titles (Fragomen 2021).

The latest available data indicate that non-nationals made up from 76% of workers in the private sector in Saudi Arabia to 99% in Qatar in 2021, down from a peak in the years 2016–2017 (Table 2.A2). Private sector foreign workers' growth rates have decreased since then and even became negative in Oman and Saudi Arabia. Oman lost 373,410 foreign employees since the mid-2010s (−25% of the foreign workforce in the private sector), and Saudi Arabia lost 2,318,787 (−27%). Foreign worker stocks in the other four countries expanded only slowly, with a decline during the COVID-19 crisis. In 2022, foreign workers'

[16]   This reference document is no longer available on the website of the Ministry of Human Resources and Social Development, but an archived file of the document in Arabic can be found here: https://web.archive.org/web/20210525073523/https ://www.hrsd.gov.sa/sites/default/files/182495.pdf.

stocks increased notably everywhere. This may be a short-term effect of the full reopening of labor markets after the COVID-19-induced closure.

Oman and Saudi Arabia also witnessed the strongest increase in their national workforce's enrollment in the private sector: +24% in Saudi Arabia, since 2020 essentially, and +36% in Oman, a steady increase since 2015. Bahrain recorded a 10% increase over the period and Kuwait stagnated at +2% from 2015 to 2022. The numbers of Qatari nationals declined markedly during the period (−20%). During its first phase (2011–2021), the Nitaqat program incorporated 523,802 Saudi workers into the labor market, or 68% of Saudi entrants to the market (MHRSD 2021). Of a targeted 213,000 Saudization contracts in all sectors for 2021, 128,000 Saudis took up jobs in the private sector in 2021 alone, outperforming the government's target of 111,000 jobs. In 2022, 400,000 Saudi workers joined the private sector (*Saudi Gazette* 2023).

Notwithstanding the hike in the numbers of foreign workers in 2022, these results may indicate the relative success of the Saudization, as well as Omanization programs during the 2010s. This is confirmed in the example of Saudi Arabia: 482,028 foreign workers presumably lost their jobs,[17] especially in the construction and trade sectors, during the period Q2 2019 to Q2 2020. During the same period, 156,772 extra Saudi workers were recorded in the labor market in health, public administration, and administrative support services, as well as in trade and manufacturing. This move was probably facilitated by the foreign workers' layoffs and suspension of new arrivals during the COVID-19 pandemic.

The distribution of workers by activity sector shifted before and after the COVID-19 period, with the hiring of foreign workers on a large scale between mid-2021 and mid-2022 (+973,837 workers), including 362,963 in the construction sector alone. Nonetheless, the incorporation of 377,615 extra Saudi workers in General Organization for Social Insurance records since mid-2021 (Figure 2.2) signals the consolidation of the Saudization trend. Most joined construction, accommodation, and administrative

Figure 2.2: Saudi Arabia: Net Change in the Number of Workers in the Private Sector, before and after the COVID-19 Pandemic, by Activity , 2019–2020 and 2021–2022
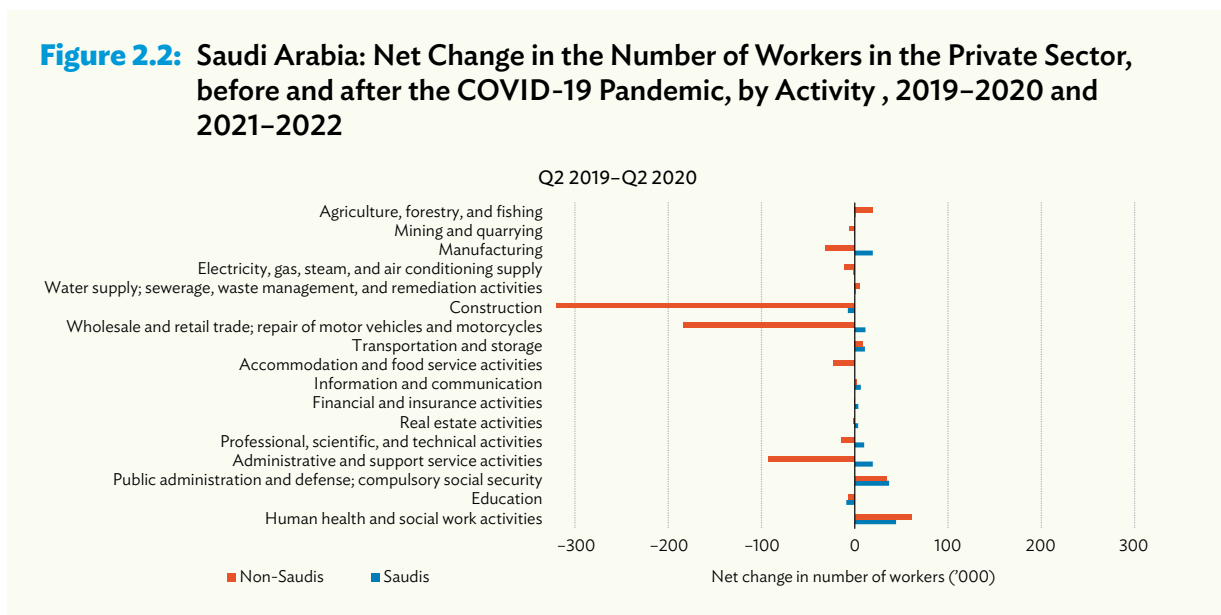
continued on next page

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[17] These figures are taken from the records of the General Organization for Social Insurance, published in the Labor Force Surveys produced by the Saudi General Authority for Statistics. The General Organization for Social Insurance records private sector workers and non-civil servants in the government sector who are eligible for social insurance.

Figure 2.2 *continued*

Q = quarter.

Source: Author's elaboration using Saudi Arabia General Authority for Statistics Register-based labor market statistics, given dates (https://www.stats.gov.sa/en/814).
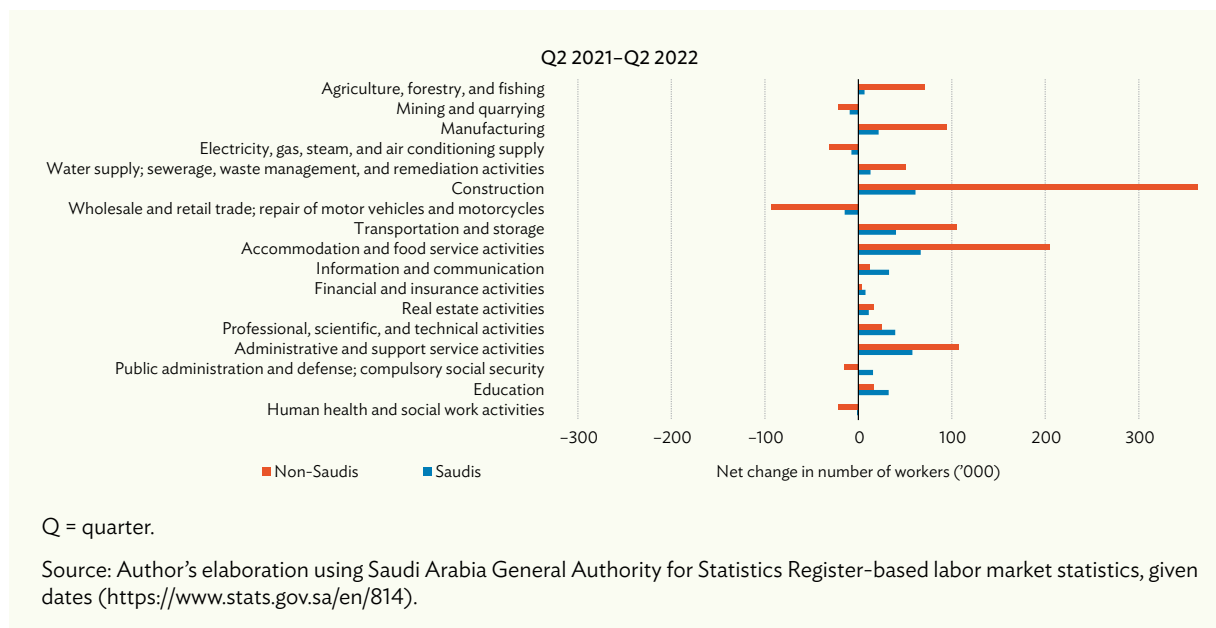
and support services activities. This reflects decisions to reserve employment in shopping malls for Saudis and increase their quotas in restaurants and coffee shops. The 28% year-on-year rise of Saudis employed in the "Health and social work" sector results from similar measures to raise the Saudization rates of some medical sectors and pharmacies. The 20% Saudization target set for the engineering jobs in several professional categories (MHRSD 2022) may also explain the surge of Saudis registered in the construction sector.

However, the parallel increase in numbers of Saudi and foreign employees in every sector (Figure 2.2) suggests that job creation largely outnumbered substitution of foreign workers with nationals. Besides the fact that many workers migrate alone, outside the realm of government-controlled schemes, challenges to a rapid and substantial replacement of foreign workers with locals are many.

One major challenge to the replacement of foreign workers with locals is the persistent segmentation of the Gulf labor markets. Besides the strong preference of nationals for governmental positions, low-skilled occupations cluster most foreign workers in the private sector. In Saudi Arabia in 2017, the two lowest blue-collar categories ("Engineering support" and "Services") employed 78% of the foreign workers, while most Saudis (53%) were in white-collar jobs, in "highly skilled"[18] as well as middle-range "Clerical work" professions. However, non-nationals also constituted 61% of all "highly skilled" workers in the private sector, largely outnumbering Saudis in the "Professionals" and "Technicians" categories. Foreign workers thus occupy the two extremes of the occupation scale. The challenge is thus

   (i)   to upgrade working conditions and salaries in low-skilled occupations, to attract low-skilled nationals to these jobs; and
   (ii) to educate and train national job seekers to replace foreigners in skilled and highly skilled positions, which requires investments as well as time, especially for highly qualified jobs.

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[18] Those classified in the three highest categories of occupations in ISCO-08 classification: "Lawmakers, directors and business managers," "Specialists in professional, technical and humanitarian fields," and "Technicians in professional, technical and humanitarian fields."

Economists said, for instance, that the target of 30% Saudization of accountancy professions to be achieved within the first semester of 2021 would create a shortage of these professionals in the short term (Al-Tamimi 2021).

A second major challenge to the replacement of foreign workers with local ones is the large wage differentials between locals and foreign workers. On average, Gulf countries' citizens receive larger salaries than foreigners employed in the same category of occupation or holding the same education level. Saudis with a secondary education and below received wages 2 to 3 times higher than those of foreign employees with similar education in 2022. The gap reduced to 1.5 times among citizens and foreign workers holding university degrees (GAStat 2022b). Such gaps reflect the diversity of salary scales based on workers' origin and reservation wages (the lowest wage rate at which a worker would be willing to accept a particular type of job), since wage differentials by nationality within companies are not illegal in the Gulf. While local citizens' preference for public employment pushes up their salary expectations, foreign workers' reservation wages are in line with their home countries' salary scales. Asian workers, therefore, earn systematically less than Arab and Western countries' nationals in similar posts in every GCC country (GLMM 2017). Economists thus consider that the wage gap between local and foreign workers is a major obstacle to the nationalization of jobs in the region (Hertog 2018), except in very high positions, where the gap is reduced. The setting up of a minimum wage for all private sector workers, as was done by Qatar in March 2021, or sectoral minimum wage floors, may start closing the labor costs gap and accelerate substitution of foreign workers with nationals. Until then, these challenges explain why the level of "phantom employment" of nationals—hiring of locals not expected to show up to boost a company's localization levels—is said to be high in the region. As labor nationalization policies base the number of recruitments from abroad or renewals of labor permits on companies' Gulfization performance, fake job localization allows companies to employ more foreign workers (*Times of Oman* 2021). Though not quantifiable so far, this phenomenon may undermine reform efforts (Lopesciolo, Muhaj, and Pan 2021).

Labor nationalization policies are there to stay and will expand over the coming years, nonetheless. Most government offices, for instance, are now off limits for foreign workers, except in the UAE and Qatar. Several sectors, such as financial and banking services, have achieved (*Saudi Gazette* 2021) or plan a full Gulfization in the coming years (*Arab Times Online* 2022). In general, upper- and middle-range managerial positions, as well as a range of white-collar middle-skilled professions, are especially targeted for localization, but the sectoral distribution of these jobs varies between countries.

2.3.2 Shifts in Skill Demands

It can be assumed that the innovation-savvy Gulf states' economies will require more workers with specific managerial, technical, and vocational skills. The occupational distribution of workers in the private sector indeed displays a slow increase in the general skill level, which matches the increase in the share of the tertiary-educated in the general population observed between 2010 and 2020. In the UAE, for instance, the three highest categories of professions (from "Managers" to "Technicians")[19] rose from 14% of all workers in 2011 to 21% in 2021. During the same period, the share of least-skilled workers recorded in the category "Elementary occupations"[20] decreased from 28% to 20%. In the "Construction" sector, which employs a large number of low-skilled workers, a slight rise in the share of the most skilled workers was observed between 2015 and 2019 ("Specialists": from 6% to 8% of

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[19] Skill levels 3 and 4 in ISCO-08 classification (ILO 2008).
[20] Skill level 1 in ISCO-08 classification (ILO 2008).

all workers).[21] A similar trend is observed in Saudi Arabia. The share of foreign workers in the three highest categories of occupations went up from 11% in 2017 to 16% in 2021, while workers employed in the lowest category of occupations decreased from 30% to 24% in 2020. However, these jumped to 51% in 2021, possibly in line with the large inflows of workers recorded in the construction sector, as megaprojects eventually resumed after the COVID-19 closures.[22] In Qatar, a similar increase in the share of highly skilled employees ("Managers" to "Technicians") is observed between the two censuses of 2010 and 2020, from 13.4% to 22.7% of all workers, while the share of least-skilled foreign workers remained relatively stable (from 23.4% in 2010 to 20% in 2020) (Qatar Planning and Statistics Authority 2010, 2020). As regards Oman, different dynamics seem at play. The share of the highly skilled has consistently decreased over the last decade, from 15% of the private sector's foreign workers in 2010 to 9% in 2021. The share of most skilled workers ("Specialists") also declined from 9.4% to 6.3%. However, the decline is more pronounced among the "Technicians" (−18,000 workers over the period) than among the "Managers," whose numbers remained stable. This likely reflects the Omanization of many white-collar skilled positions (Ministry of Labor, Oman 2022), for instance in the banking, oil and gas, communication, and insurance sectors most recently (Al Musalmy 2022). At the same time, the proportion of foreign workers classified in the bottom category of occupation decreased too, from a high of 52% in 2012 to a low of 41% in 2021. The numbers went significantly down from 821,000 in 2017 to 553,000 in 2021 (last available year). These trends indicate that low-skilled workers were most affected by policies aiming to limit the numbers of foreign workers in Oman, ongoing since 2017. Categories of occupations witnessing a significant hike in numbers and share are "Services" and "Sales" occupations, where the numbers of foreign employees more than doubled over the 2010s. This is despite the fact that a large share of Omani workers was also employed in "Services" occupations since 2016.[23]

In the domestic sector, which (according to official statistics) only employs migrant workers, the evolution of required competences and skills is impossible to track, for lack of data. New demands in terms of technical and transversal skills are expressed by employers, especially around care for children and the elderly (Tayah and Assaf 2018), which implies increased responsibilities for domestic employees and the need for them to perform multiple tasks. However, most female domestic workers are classified as "Cleaner" in statistics (98%–99% in Bahrain and Saudi Arabia in 2022), which does not reflect the reality of the occupations many of them perform as unofficial nannies and nurses, for instance. This situation poses a problem of skill recognition.

The impact of automation of labor and development of AI on the future of jobs in the region is hotly debated. The potential for automation of work activities using available technology was estimated at 45% in the Middle East region. In the UAE, it was estimated that "based on the segmentation of work activities by sector, occupation and education, more than 93 percent of the labor-saving technical automation potential applie[d] to jobs currently held by expat workers" (aus dem Moore, Chandran, and Schubert 2018: 6). Technology could also require more upskilling of domestic workers, especially in the care sector (Tayah and Assaf 2018).

Artificial intelligence, on the other hand, could more likely replace white-collar jobs than blue-collar jobs, as it is primarily geared toward cognitive tasks such as information collection, verification, and decision-making based on routine analysis of data. Exploratory research on the role of AI in the workplace and the future of employment in Qatar suggested that 46.5% of tasks across all jobs in

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[21] UAE Federal Competitiveness and Statistics Centre, labor market information system, given years. Data are not disaggregated by nationality, but results reflect the movements and structure of foreign employees due to their dominant share among all workers.

[22] GAStat (Saudi Arabia), labor market statistics and register-based labor market statistics, given years.

[23] Around 17% after the "Managers" and "Elementary occupations" (each around a quarter of Omani employees in the private sector), based on data for 2010–2021 from the data portal of the National Center for Statistics and Information.

Qatar's economy can be automated using existing technologies, which would translate into 670,064 full-time equivalent (FTE) expat jobs and 49,764 FTE Qatari jobs in several sectors from government and defense, financial activities, and information and communication to education and health (Qatar Center For Artificial Intelligence 2020). AI will thus affect foreign as well as local workers often employed in such jobs.

The scale of changes in the number and skill profile of migrants expected from the development of automation, digitalization, and AI suggests, so far, that Gulf labor markets are not as affected by radical technological changes as they could be. The reason is that "while high-skilled migrants are often as expensive to employ in the GCC as in advanced countries, the price of low-skilled foreign labor remains much lower, giving it a considerable cost advantage" (Hertog 2019: 4). Further, there are still many less skilled jobs, including construction and services, let alone domestic work, where automation may be difficult and employers are accustomed to low-cost foreign workers. Nonetheless, there is little doubt that the future demand for labor in the Gulf will be toward fewer but more skilled and flexible workers. Technological changes are underway (*Arab News* 2021) to limit blue-collar employment, and Gulf governments' large-scale investments in the training and upskilling of their young citizens could soon also put pressure on skilled foreign workers, at least in Saudi Arabia, the most populated Gulf state.

2.3.3 Skill and Qualification Recognition Frameworks

Gulf states' development strategies set as a priority the matching of foreign migrants' skills with employers' needs, to improve the monitoring of the numbers and profiles of migrant workers. Skill recognition systems are also a demand of countries of origin, which expect their nationals to receive salaries matching their skills. However, most Gulf countries did not fully implement skill recognition frameworks, and recruiting companies are still responsible for selecting and verifying the suitability and qualifications of prospective migrants. In Kuwait, the only verification of skills and qualifications performed by the government is done during the visa application process, but the Public Authority for Manpower plans to activate a unit to assess the vocational skills of prospective migrants for some specific occupations (IOM 2018).

Various initiatives, however, tackle the issue of skill recognition. They include the standardization of national occupational classifications across government entities, in Qatar and Saudi Arabia (GAStat 2019), and the comparability of certifications and degrees. The UAE Qualifications Framework was launched in 2018 to provide a tool for comparing and validating international qualifications and certifications that are used for education and employment. On skill assessment, the UAE Ministry of Human Resources and Emiratisation (MOHRE) recently launched an initiative requiring employers to start establishing their own internal skill verification frameworks. The initiative includes verifying results in previous positions, qualifications, and certifications submitted for new job positions in businesses. The employer is also responsible for assessing the authenticity and validity of previous work experience and qualifications of candidates through an online portal. Furthermore, the initiative requires employers to register the verified information in the ministry database and provide predeparture and post-arrival orientation programs for workers to ensure they are adequately aware of the country's working regulations and opportunities.[24] A pilot project for the mapping and mutual skill certification between India and the UAE was also conducted in 2019, focusing on 13 professions (Suri and Kumar 2020).

In March 2021, the Saudi Ministry of Human Resources and Social Development, in cooperation with the Ministry of Foreign Affairs and the Technical and Vocational Training Corporation, launched

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[24] Email exchange with a labor migration specialist in Dubai, 12 February 2023.

the Skills Verification Program (SVP) to assess the matching between foreign employees' skills and job requirements. The SVP applies to around 1,000 specific professions of skilled workers in 23 occupations as defined by the Saudi Standard Classification of Occupations. The SVP is part of the Professional Accreditation Program, aiming at regulating the labor market by standardizing professional qualifications as per Vision 2030 (Lal 2022). Skill testing for specific professions was conducted in 2022 in India and Pakistan (*Saudi Gazette* 2022) ahead of prospective migrants' work visa applications (Abujaleel 2021).

These schemes are likely to have some impact on migration patterns from these two countries and possibly for others in Asia. It remains to be seen if the bilateral skill recognition and verification processes will contribute to improving salaries received by certified workers, but it is likely that such schemes will facilitate, though not necessarily increase, labor inflows along the specific migration corridors linking countries having concluded bilateral agreements. As stated by Gulf destination countries, the purpose of standardizing qualifications is to enhance the productivity of labor markets by adjusting foreign applicants' skills to the requirements of the profession they apply to, hence limiting the flow of unqualified workers. It is thus expected that nationals from countries contributing to skill verification programs will be preferred by employers, as they probably will obtain visas or switch employers faster and would be immediately operational upon arrival in the destination country.

However, the formation of migration corridors based on mutual skill recognition, and the use of bilateral agreements in general, may increase competition between countries of origin based on their ability and resources to prepare workers in line with employers' needs (Malit and Naufal 2017). These changes may influence the structure of migration flows by origin country and the nature of migrants' work in specific migration corridors.

2.3.4 Policies to Attract and Retain Skilled Workers in GCC Countries

In line with recent reforms of the sponsorship system, possibly a way to hasten contraction of the gap between private and public sector wages (Kagan and Cholewinski 2022), it could be expected that Gulf states' political economies would start evolving to become more inclusive for resident populations, nationals as well as non-nationals. Some changes have indeed occurred since the 2000s. Trade unions were legalized in Oman and Bahrain, as well as (Saudi) workers' committees in Saudi Arabia (Louër 2021), for instance, which are now "imposing collective bargaining in the workplace and are associated to tripartite negotiations on labor policy, leading to an economic and social order which is increasingly negotiated" (Louër 2015). However, these negotiations focus on nationals' employment-related concerns, especially regarding job nationalizations. The segmentation of labor markets between nationals and non-nationals prevents the emergence of purely labor-based movements. Migrant workers' claims are addressed separately, if at all (Connell 2019). There is only limited or no freedom of association in most countries, and migrant workers have no collective bargaining power.

While rejecting the sociopolitical integration of migrants, Gulf states started opening some specific avenues in the economic sphere. In the hope of attracting "high potential" foreign workers and investors, all Gulf states have launched programs offering long-term or permanent residence, such as Oman's Investor Residency Programme (Ministry of Commerce, Industry and Investment Promotion, Oman n.d.), launched in October 2021. Law No. 10 of 2018 opens permanent residency to persons having rendered "special services" or holding "special qualifications" needed in Qatar (GLMM 2018b). Bahrain's Golden Visa program (Sophia 2022) offers permanent residence, following a 10-year residency permit initiative launched in 2019. In 2019, Saudi Arabia introduced the Premium Residency Card or "Green Card," a scheme offering long-term or permanent residency without a sponsor on financial grounds. Permanent Premium Residency Card holders can travel in and out of Saudi Arabia without restrictions of duration (*Arab News* 2019).

The UAE also focuses on specific profiles of foreign workers: the wealthiest and those with outstanding competences of use to the country's development process. Cabinet Resolution No. 56 of 2018, implemented in 2019, grants Golden Visas to specific categories of applicants: investors, entrepreneurs, specialized talents and researchers in various fields of science and knowledge, and exceptional students with promising scientific capabilities. These visas are issued for 5 or 10 years and are renewed automatically. The new system enables foreigners to live, work, and study in the UAE without the need of a national sponsor and allows 100% ownership of their business on the UAE's mainland.

In September 2020, Dubai launched a retirement program for resident foreign workers and foreigners over the age of 55, "Retire in Dubai." The retirement visa, renewable every 5 years, is granted on financial grounds: earning a monthly income of AED20,000 ($5,500), having savings of AED1 million ($275,000), or owning a property in Dubai worth AED2 million ($550,000).

On 30 January 2021, the UAE approved amendments to the 1972 citizenship law, allowing investors, professionals, special talents, and their families to acquire Emirati nationality and passports under certain conditions. Acquiring Emirati citizenship will be done through nominations from the Ruler's and Crown Prince's Courts, Executive Councils, and the Cabinet based on federal entities' nominations (United Arab Emirates 2023). Foreign nominees for naturalization will be able to retain their existing nationality.

Such measures could significantly overturn the rule forbidding, in theory, the settlement of non-nationals in Gulf countries and open opportunities for a kind of economic membership, if not the acquisition of full citizenship (except in the UAE). Nonetheless, even if exceptional in the context of Gulf states, these measures are mostly cosmetic, as they select extremely specific profiles among foreign workers and do not plan to incorporate large numbers of foreigners into the citizenry. These measures are not likely to significantly increase migration flows to the Gulf.

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2.3.5 Shifts in Workers' Countries of Origin

Saudi Arabia and the UAE, the major migrant destination countries in the region, as well as Qatar, do not publish any data disaggregated by migrants' country of citizenship or region of origin. Qatar and the UAE do not even publish figures of total populations by nationality (nationals/non-nationals). The small share of national populations in those two countries (Table 2.1) may explain these choices. The situation is different in Saudi Arabia, where the share of foreign residents is the lowest in the region. The absence of data on migrants' citizenship in Saudi statistics may result from the country's difficulty to monitor the numbers of migrants (De Bel-Air 2018b) or from political concerns (see later in this section). A small amount of data are available from Kuwait, Oman, and Bahrain. Data from Kuwait by region of origin do not indicate that inflows of Asian countries' nationals have suffered major shifts during the decade, and these inflows seem to be recovering after the COVID-19 pandemic (Table 2.3), but the large numbers of Indian and Pakistani nationals in the region may conceal the fluctuations of other, less numerous Asian nationalities. Nationals from African countries, who are mostly women employed in domestic services (De Bel-Air 2023), experienced a significant drop in their numbers after 2014. This may be due to the targeting of Ethiopian nationals in campaigns of deportations of migrants in irregular administrative situations after that date (De Bel-Air 2019a).

In Oman, disaggregated data show that some Asian nationalities (Indians, Pakistanis, and Bangladeshis, especially) decreased in numbers after the mid-2010s or fell into an irregular status and stopped being recorded. Mostly composed of men, these migrants were probably hit by the contraction of Gulf economies after this period and by labor nationalization policies. Nationals from the Philippines and Sri Lanka, who are women in majority and are often employed in domestic services, did not suffer such a decrease before 2020.

Table 2.3: Kuwait: Evolution of the Numbers of Permit Holders (All Categories of Residency Permits), by Group of Countries of Origin, 2017–2020

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Arab countries	722,575	750,426	802,213	837,363	877,959	898,660	916,169	952,261	997,788	947,282	905,736	960,774
Non–Arab Asian countries	1,338,340	1,391,040	1,458,161	1,525,083	1,620,129	1,714,717	1,775,919	1,849,050	1,921,465	1,729,171	1,554,994	1,813,954
Non–Arab African countries	73,403	83,144	93,004	73,300	61,070	49,634	47,254	53,778	45,697	36,718	28,471	31,922
Europe	10,216	10,554	10,921	11,443	12,081	12,482	13,565	13,726	13,435	12,101	11,271	11,571
North America	19,191	19,311	18,244	18,297	18,403	18,860	19,079	19,223	18,899	17,882	16,847	17,303
South and Central America	1,121	1,131	1,109	1,104	1,179	1,343	1,499	1,746	1,897	1,934	1,733	1,921
Australia and the Pacific	1,416	1,408	1,426	1,419	1,452	1,495	1,467	1,469	1,430	1,350	1,246	1,167
Other	13	13	11	9	3	4	3	2	2	1	3	1
Total	2,166,275	2,257,027	2,385,089	2,468,018	2,592,276	2,697,195	2,774,955	2,891,255	3,000,613	2,746,439	2,520,301	2,838,613

Source: Central Statistical Bureau, Migration Statistics Bulletin, given years.

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Ethiopian nationals also declined in numbers since the mid-2010s and became outnumbered by other newly arrived nationalities, also from Africa. Yet, the numbers of these "new" African nationalities also tend to deflate with time. Like in the case of Ethiopians, nationals from sub-Saharan African countries, who are often women employed in domestic services, may be easily kept in informal employment and, therefore, would disappear from records (De Bel-Air 2023). This shows the vulnerability of these nationals, who entered Gulf labor markets only recently and lack the protection of their governments, contrary to other, more numerous nationalities with established migration-related institutions and better diplomatic representation and support (i.e., through labor attachés) in the GCC, such as the Philippines.

The slow decline in the numbers of some Asian nationalities employed in the private and public sectors across the 2010s, before the COVID-19 crisis, is less visible in Bahrain than in Oman (Table 2.4). Some nationalities (Indians, Pakistanis) have resumed their increasing trends since the end of the COVID-19 crisis.

As regards domestic workers, like in Kuwait and in Oman, African countries' nationals declined in numbers since before the COVID-19 crisis, either by leaving the country, or by falling into irregularity (Table 2.5).

Seen from single countries of origin (Chapter 1 of this report), the dynamics of outflows to Gulf states (here, Saudi Arabia) are erratic and probably reflect the growing role of governmental policy interventions in the migration process, as suggested earlier by Figure 2.2. The declining number of Indian migrants to Saudi Arabia, observed in the UAE as well, may also result from high economic growth rates at home, which would increase wages and delay overseas migration of the numerous low- and middle-skilled Indian professionals.

Table 2.4: Bahrain: Evolution of the Numbers of Workers in the Public and Private Sectors (Selected Nationalities, Both Sexes, Q4 2015–Q2 2022)

Nationality	Q4/2015	Q4/2016	Q4/2017	Q4/2018	Q4/2019	Q4/2020	Q4/2021	Q2/2022*
Egypt	8,951	9,141	10,193	11,380	11,348	10,262	10,524	11,303
Jordan	3,160	3,093	3,163	3,246	3,230	2,847	2,986	3,040
Yemen	2,417	2,486	2,517	2,719	2,719	2,517	2,696	2,878
India	212,750	221,449	235,858	241,473	236,546	206,720	207,195	224,836
Bangladesh	114,886	164,377	129,729	126,967	124,257	125,855	108,642	108,428
Pakistan	42,615	44,771	45,933	43,240	45,473	45,910	48,555	55,377
Philippines	28,613	30,539	31,328	32,419	31,636	27,562	26,464	26,753
Nepal	13,882	14,178	15,711	17,168	17,559	15,852	16,936	19,543
Sri Lanka	6,051	4,271	4,103	4,046	4,017	3,513	3,252	3,578
Kenya	906	1,223	1,536	1,974	2,168	2,107	2,180	2,305
Ethiopia	874	960	1,121	1,109	1,137	1,027	...	...
Uganda	...	...	...	...	1,390	1,435	1,780	2,071
Cameroon	...	...	...	...	990	1,020	1,593	1,844
Total	455,223	518,582	504,721	511,556	507,171	468,325	456,427	487,020

... = data not available, Q = quarter.

* Last data available as of February 2023.

Note: Expat Management System (EMS) data refer to expat visa applications (Gulf Cooperation Council workers not included).

Source: Labour Market Regulatory Authority, Bahrain (2022).

Table 2.5: Bahrain: Evolution of the Numbers of Domestic Workers (Selected Nationalities, Both Sexes, Q4 2018–Q2 2022)

Nationality	Q4 2018	Q4 2019	Q4 2020	Q4 2021	Q2 2022*
India	20,633	20,143	16,997	18,139	19,558
Philippines	19,911	18,704	16,582	19,679	20,472
Bangladesh	9,605	9,426	8,304	8,791	8,800
Indonesia	6,662	5,941	4,636	5,338	5,393
Sri Lanka	3,424	3,325	2,973	3,153	3,292
Pakistan	2,589	2,868	2,722	3,028	3,259
Ethiopia	21,647	15,694	10,837	9,110	9,559
Kenya	3,694	5,258	4,353	2,832	2,124
Total	90,591	84,010	69,874	72,470	74,896

Q = quarter.

* Last data available as of February 2023.

Notes:
Includes active domestic work permits for which a residence permit has been issued.

From Q1 2019 onward, figures of pending permits to be issued with a residence permit and figures of permits due for renewal (not terminated or canceled by the employer) were added to figures of actual permits.

Source: Labour Market Regulatory Authority, Bahrain (2022).

Another economic argument may also drive shifts in migrants' origin countries. Gulf governments struggle to diversify the nationalities available for work, for example in the domestic sector. The growing employment of African domestic workers, for example, is motivated by their acceptance of lower salaries, if compared to wages and conditions expected by Asian nationalities well established in the sector (Indians, Filipinos) (Malit and Al-Youha 2016). Governments of these poorer developing countries also lack the necessary leverage to impose better conditions on destination states' governments for their nationals.

Besides economics, political and other factors influence fluctuations in recruitment from specific countries. Migration quotas by nationality exist but are never disclosed publicly. The stated aim of such quotas is to guarantee that single foreign nationalities do not outnumber nationals[25] or are kept in no position to make claims on the host state. The negative net migration inflow (more exits than entries) of Bangladeshis to Saudi Arabia after 2009 was caused, for example, by a ban on the recruitment of these nationals under the argument that they outnumbered their numeric quotas in Saudi Arabia (Roberts 2008). Diplomatic crises also caused shifts in migration flows. The execution of an Indonesian woman in Saudi Arabia spurred a diplomatic crisis between the two countries; Indonesia banned workers from going to Saudi Arabia in August 2011.[26] Ethiopians were banned from Kuwait following a popular campaign against these nationals in 2014 (Migrant-Rights.org 2014). Deportations of workers in irregular administrative situations, from Kuwait, Oman, and Saudi Arabia especially, do not affect all nationalities equally, as some are more able than others to regularize their status. The 17,000 deportations conducted during 2018 from Kuwait, for instance, mostly concerned Filipinos, Ethiopians, Egyptians, Sri Lankans, and Bangladeshis (*Arab Times Online* 2019).

2.4 Conclusion

Against the backdrop of the current transformations of GCC demographics and economies, this chapter has analyzed the labor-related policies adopted by Gulf states' governments over the last decade and explored their expected impact on future demand for foreign workers, especially from Asian countries.

As a long-term prospect, the greatly ambitious national transformation programs seek to diversify Gulf economies away from their dependency on hydrocarbons and large public spending by setting up productive, high-growth private sectors able to alleviate nationals' unemployment. Attracting Gulf nationals to a productive labor market thus requires Gulf states to

(i)   set stimulating goals for their economies, now designed to become "knowledge-based" economies; and
(ii) upgrade salaries and conditions in the private sector by localizing labor or substituting large numbers of low-skilled, low-wage foreign workers with nationals and smaller numbers of highly skilled foreign workers.

In view of the data and policy trends available, keeping in mind that many workers still migrate using their own means and contacts and are, therefore, not recorded by origin countries' authorities, and

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[25] For example, in 2003, the UAE passed the Cultural Diversity Policy, which aimed at making the Emiratis the largest minority in the country by limiting the size of other communities. Employees' visas were made more expensive for employers not diversifying their labor pool in an aim to reduce flows (see Jamal 2015). The aim was also "to reinforce control over the workforce by diluting the existing national concentrations [of Asian workers] with more Arab workers" (Davis 2006). In 2022, UAE Cabinet Resolution 18 of 2022 requires companies to strictly comply with "skilled manpower policy which requires promoting cultural and demographic diversity in the labor market" (UAE Cabinet 2022).

[26] The two countries eventually signed a bilateral agreement to resume the recruitment of Indonesian domestic workers in September 2022 (Migrant-Rights.org 2022).

assuming that no major political or other event derails the labor nationalization process, the following short- to middle-term developments could possibly impact foreign workers as a whole in Gulf states.

- **Likelihood of slow decline in the demand for foreign workers to fuel infrastructure development needs.** Despite the relative success of labor nationalization policies in Oman and especially in Saudi Arabia (Nitaqat), challenges to a rapid and substantial replacement of foreign workers with locals are many.[27] The segmentation of Gulf labor markets and the clustering of about half of foreign workers in low-skilled, low-wage professions keeps nationals away from these low-quality jobs. At the other extreme, substituting skilled and highly skilled foreign workers with locals is equally challenging, as it implies heavy investments and long-time training of nationals. More generally, the entitlement of nationals to higher salaries than foreign workers in similar functions creates a persistent wage gap between the two groups, which sustains employers' preference for foreign workers. So far, upper- and middle-range managerial positions, as well as a range of white-collar middle-skilled professions, are especially targeted for localization, but the sectoral distribution of these types of jobs varies between countries.
- **Skill profile of hired workers likely to improve.** The global increase in the skill profile of the foreign workforce over the 2010s, as well as the progressive setting up of skill verification and recognition systems, may eventually increase wage levels, and analysis of policies and data strongly suggests a change of migration patterns toward fewer but more skilled foreign workers. Indeed, Gulf states passed groundbreaking reforms seeking to attract and retain highly skilled foreign workers.
- **Differential destination countries' policies and competition between countries of origin mostly deploying low-skilled migrants.** Policies directed at highly skilled foreign workers stand in stark contrast with the diversification of countries of origin and the subsequent "race to the bottom" it creates in terms of salaries and working conditions for low-skilled and domestic workers. A gap may thus widen between highly skilled and "high potential" foreign workers, progressively incorporated into the Gulf states' reform process, and low-skilled foreign workers. Moreover, the development of bilateral labor agreements as preferred tools of communication with countries of origin may spur competition between origin countries' nationals for access to employment in the Gulf.

These general outcomes of current migration, employment, and reform trends in Gulf states have potential implications for Asian migrants to the region.

- The Gulf region is a major destination for most Asian migrants and practically the only outlet for employment abroad for large numbers of nationals of some countries in the region, such as Bangladesh and Pakistan. This makes migrants vulnerable to any change in the countries of destination, which could impact the size, structure, or dynamics of migration stocks and flows. These disrupting factors may be diplomatic issues between countries of origin and destination or bans on certain nationalities considered too numerous in the destination Gulf state, as occurred between Saudi Arabia and Bangladesh in 2009. Diversification in the regions and countries of destinations for migrants from Asia is thus essential to preserve means of livelihood at home (through remittances and other returns) and migrants' security.
- Asian migrants dominate numerically in Gulf states' labor markets. Among Asian migrants, Indians, estimated to number 8 million or more in the region, are present at all levels of occupation and in all activity sectors. Their numbers make Indian migrants, as a whole,

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[27] Discussions on job nationalization do not concern Qatar and the UAE, where national populations are too small to fill all positions occupied by migrants.

difficult to replace with nationals or AI, at least in a short time span. However, the occupational segregation of other nationalities by gender and country of origin (for instance, the concentration of Nepalese men in construction work, or that of Indonesian women in domestic services) makes specific nationalities vulnerable to economic fluctuations and sectoral reforms. The automation of routine tasks, for example in the construction or manufacturing sectors, is also a challenge for nationals concentrated in low- or middle-skilled activities. The upskilling of workers and mutual recognition of their skills should be expanded, along with the diversification of their activity sectors. Professions less likely to be automated should be targeted for training. However, a diminution of migration flows from Asia to the Gulf states should be expected.

- The domestic services sector, which employs most Asian workers in the region, may not be immediately affected by job nationalization and massive automation, due to social resistance of employers. However, training in recent technological developments in the sector, for example in driving, the care sector, and home automation and maintenance, should be developed in origin countries.

- Improving the wages and work conditions of the majority of blue-collar, low-wage Asian workers while remaining "competitive" on the international employment market to sustain large volumes of job opportunities for these migrants in the Gulf is a challenge. The "race to the bottom" incurred by the diversification of countries of recruitment toward an ever cheaper workforce should be addressed. Origin countries outside Asia, such as sub-Saharan African countries, could be invited to join multi-stakeholder consultative processes such as the Colombo Process or the Abu Dhabi Dialogue. These are expected to play a major role in preparing for the future demand in skills (Gagnon and Gagnon 2021). Together with international, regional, and other relevant institutions, migrant-sending states should work at raising labor standards collectively. These standards should be incorporated in bilateral agreements.

- Accurate forecasting of the future of migration to the Gulf states and the changes in skill demand can allow better control of their consequences on migrants. However, each corridor displays specific historical and cultural, sociodemographic, and migration patterns, and these can only imperfectly be understood, due to the near absence of data disaggregated by country of origin in Gulf states' statistics. Improving the collection, processing, and sharing of data on Asian migrants between origin and destination countries is strategic in preparing for the future of Asian migration to the Gulf region.

References

Abujaleel, B. 2021. Saudi Arabia: New Skills Verification Program for Foreign Workers. WTW. https://www.wtwco.com/en-BM/Insights/2021/04/saudi-arabia-new-skills-verification-program-for-foreign-workers

Al Fahaam, T., and H. Mohamed. 2022. UAE Economy Survived Economic Impact of COVID-19: IMF Official. Emirates News Agency. 21 December. http://wam.ae/en/details/1395303113447

Al Musalmy, S. 2022. Omanisation Gathers Steam: Jobs for Omanis Up in Five Sectors. Muscat Daily. 29 August. https://www.muscatdaily.com/2022/08/29/omanisation-gathers-steam-jobs-for-omanis-up-in-five-sectors/

Al-Monitor. 2023. Saudi Arabia Launches Investment Fund for Sports, Entertainment Events. *Al-Monitor*. 17 January. https://www.al-monitor.com/originals/2023/01/saudi-arabia-launches-investment-fund-sports-entertainment-events#ixzz7s3xoTtqp

AlMunajjed, M. 2010. *Women's Employment in Saudi Arabia: A Major Challenge*. San Francisco: Booz and Co. https://www.arabdevelopmentportal.com/sites/default/files/publication/235.womens_employment_in_saudi_arabia_a_major_challenge.pdf

Al-Tamimi, J. 2021. Saudization: What Needs to Be Done to Achieve 30% in Accountancy? *Arab News*. 18 January. https://www.arabnews.com/node/1794706/business-economy

Arab News. 2019. Saudi "Green Card" Online Platform Is Open for Business. *Arab News*. 24 June. https://www.arabnews.com/node/1514921/saudi-arabia

⸺. 2021. Saudi Arabia Aims for 4,000 Factories to Be Automated within 5 Years: Minister of Industry. *Arab News*. 26 October. https://www.arabnews.com/node/1955616/business-economy

⸺. 2023. Saudi Arabia's Real Estate Plans Leading the World in Innovation. *Arab News*. 28 January. https://www.arabnews.com/node/2240651/business-economy

Arab Times Online. 2019. Decline Seen in Deportation Rate. *Arab Times Online*. 22 January. http://www.arabtimesonline.com/news/decline-seen-in-deportation-rate

⸺. 2022. CBK Tells Local Banks to Kuwaitize Certain Vital Positions. *Arab Times Online*. 9 August. https://www.arabtimesonline.com/news/cbk-tells-local-banks-to-kuwaitize-certain-vital-positions

Bangladesh Ministry of Expatriates' Welfare and Overseas Employment Bureau of Manpower, Employment and Training. 2023. Statistical Reports. www.old.bmet.gov.bd/BMET/viewStatReport.action?reportnumber=24

BEOE. n.d. Reports and Statistics. Pakistan Bureau of Emigration and Overseas Employment. https://beoe.gov.pk/reports-and-statistics

Central Statistical Bureau, State of Kuwait, Labor Market Information System. 2022. Labor Market Data. https://lmis.csb.gov.kw/IntegratedDataView_En

⸺. 2023. *Migration Statistics Bulletin*, 2022. https://www.csb.gov.kw/Pages/Statistics_en?ID=56&ParentCatID=1

Chaaban, J. 2010. Job Creation in the Arab Economies: Navigating Through Difficult Waters. Arab Human Development Report Research Paper Series. United Nations Development Programme, Regional Bureau for Arab States. https://www.arabdevelopmentportal.com/sites/default/files/publication/470.job_creation_in_the_arab_economies_navigating_through_difficult_times.pdf

Coates Ulrichsen, K. 2017. *Economic Diversification in Gulf Cooperation Council (GCC) States*. Houston: James A. Baker III Institute for Public Policy of Rice University.

Connell, T. 2019. Kuwait Union Opens Doors to All Migrant Workers. Washington, DC: Solidarity Center. https://www.solidaritycenter.org/kuwait-union-opens-doors-to-all-migrant-workers/

Davis, M. 2006. Fear and Money in Dubai. *New Left Review* 41.

De Bel-Air, F. 2015. The Socio-Political Background and Stakes of "Saudizing" the Workforce in Saudi Arabia: The Nitaqat Policy. *GLMM Explanatory Note*, 3/2015. Florence: EUI-RSCAS, Migration Policy Centre. https://cadmus.eui.eu/handle/1814/34857

———. 2018a. "Blocked" Youth: The Politics of Migration from South and East Mediterranean Countries before and after the Arab Uprisings. *The International Spectator* 53(2): 52–73. https://www.tandfonline.com/doi/full/10.1080/03932729.2018.1460094?scroll=top&needAccess=true.2018

———. 2018b. Demography, Migration and Labour Market in Saudi Arabia 2018. Explanatory Note No. 5/2018, GLMM.

———. 2019a. Demography, Migration and the Labour Market in Kuwait 2019. Explanatory Note No. 3/2019, GLMM.

———. 2019b. *Fertility in Qatar and in Other GCC States: Some Elements of Comparison*. European University Institute, Florence; Gulf Research Center Foundation, Geneva; and Social and Economic Research Institute, Qatar University, Doha. https://gulfmigration.grc.net/media/pubs/rp/NPRP%20Project%20-%20Francoise%20De%20Bel-Air%20-%202019-11-26.pdf

———. 2021. Asian Migrants in the Gulf on the Eve of the Covid-19 Pandemic. In N. Shah, ed. *Covid-19 Crisis and Asian Migration*. Lahore: Lahore School of Economics.

———. 2023. Measuring the Impact of Covid-19 on Migrant Workers in the GCC and Jordan. Research Report No. 1/2023, GLMM.

Dubai Statistics Center. 2019. *Labor Force Survey 2019*. https://www.dsc.gov.ae/en-us/Themes/Pages/Labour.aspx?Theme=41#DSC_Tab1

EIU. 2022. *Middle East: Uneven Post-Covid Recovery*. 7 Jul. https://www.eiu.com/n/middle-east-uneven-post-covid-recovery/

Emirates News Agency. 2021. UAE Grants Citizenship and Passport to Investors, Professionals, Special Talents. Emirates News Agency. 30 January. https://www.wam.ae/en/details/1395302905586

Fast Company. 2022. Saudi Arabia to Invest $1 Trillion in Real Estate and Infrastructure. *Fast Company Middle East*. 12 December. https://fastcompanyme.com/news/saudi-arabia-to-invest-1-trillion-in-real-estate-and-infrastructure/

Fragomen. 2021. Reforms to Nitaqat Program Forthcoming. https://www.fragomen.com/insights/reforms-to-nitaqat-program-forthcoming.html

Gagnon, C., and J. Gagnon. 2021. Migration in Asia: What Skills for the Future? OECD Development Policy Papers, No. 40. Paris: OECD Publishing. https://doi.org/10.1787/38a9c133-en

GAStat. 2019. The Unified Saudi Occupational Classification. Riyadh, Kingdom of Saudi Arabia: General Authority for Statistics. https://www.stats.gov.sa/sites/default/files/Report_GAStat%20Unified%20Saudi%20Occupational%20Classification_English_V1.pdf

———. 2022a. Administrative Records-Based Labour Market Statistics, Q2, 2022. Riyadh, Kingdom of Saudi Arabia: General Authority for Statistics.

———. 2022b. Labor Market Statistics Q3, 2022. Table 6.2. https://www.stats.gov.sa/sites/default/files/LM%20tables_Q3_2022_EN%28%25%29.xlsx

Gause, F. G. III. 2015. Sultans of Swing? The Geopolitics of Falling Oil Prices. Brookings Doha Center Policy Briefing. Washington, DC: Brookings Institution. https://www.brookings.edu/wp-content /uploads/2016/06/falling-oil-prices-english.pdf

General Secretariat for Development Planning, Qatar. 2008. Qatar National Vision 2030. Doha: General Secretariat for Development Planning. https://www.psa.gov.qa/en/qnv1/pages/default.aspx

GLMM. n.d. Demographic and Economic Database. Gulf Labour Markets and Migration Programme. https://gulfmigration.grc.net/glmm-database/demographic-and-economic-module/

———. 2017. GCC: A Comparison of Average Monthly Salaries Received, by Nationality Group of Workers and Country (in US$, Selected Professions, 2017). Gulf Labour Markets and Migration Programme and Gulf Research Center. https://gulfmigration.grc.net/gcc-a-comparison-of -average-monthly-salaries-received-by-nationality-group-of-workers-and-country-in-us -selected-professions-2017/

———. 2018a. Oman: Population by Country of Citizenship (Selected Nationalities) and Sex (2018). Gulf Labour Markets and Migration Programme and Gulf Research Center. https://gulfmigration.org /oman-population-by-country-of-citizenship-selected-nationalities-and-sex-2018/

———. 2018b. Qatar: Law No. 10 of 2018 Regarding Permanent Residence. https://gulfmigration.grc.net /qatar-law-no-10-of-2018-regarding-permanent-residence/

———. 2022. GCC: Total Population and Percentage of Nationals and Non-Nationals in GCC Countries (National Statistics, mid-2020). Gulf Labour Markets and Migration Programme. https://gulfmigration.grc.net/gcc-total-population-and-percentage-of-nationals-and-non -nationals-in-gcc-countries-national-statistics-mid-2020-2/

Gulf Business. 2020. Kuwait's Parliament Passes Law to Cut Expat Numbers. *Gulf Business*. 21 October. https://gulfbusiness.com/kuwaits-parliament-passes-law-to-cut-expat-numbers/

Gulf Insider. 2022. Kuwait: Artificial Intelligence to Manage Airports, Roads, Residential Cities. *Gulf Insider*. 18 November. https://www.gulf-insider.com/kuwait-artificial-intelligence-to-manage -airports-roads-residential-cities/

Hammad and Al-Mehdar Law Firm. 2022. Saudization "Nitaqat." https://www.lexology.com/library /detail.aspx?g=55f80d87-624b-4bd5-9e11-04d67aaf2c6c

Hertog, S. 2018. *Can We Saudize the Labor Market without Damaging the Private Sector?* Special Report. Riyadh, Kingdom of Saudi Arabia: King Faisal Center for Research and Islamic Studies.

———. 2019. *The Future of Migrant Work in the GCC: Literature Review and a Research and Policy Agenda*. In: Fifth Abu Dhabi Dialogue Ministerial Consultation, 2019-10-16 – 2019-10-17, Abu Dhabi Dialogue Among the Asian Labor Sending and Receiving Countries, Dubai, United Arab Emirates. http://eprints.lse.ac.uk/102382/

ILO. 2008. International Classification of Occupations. Geneva: International Labour Organization. https://ilostat.ilo.org/resources/concepts-and-definitions/classification-occupation/

———. 2018. 20th ICLS Guidelines Concerning Statistics of International Labour Migration, 10–19 October. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents /meetingdocument/wcms_648922.pdf

IMF. 2016. Economic Diversification in Oil-Exporting Arab Countries. Policy Paper, 29 April. Paris: International Monetary Fund. https://www.imf.org/en/Publications/Policy-Papers/Issues /2016/12/31/Economic-Diversification-in-Oil-Exporting-Arab-Countries

IOM. 2018. Migration Governance Overview: The State of Kuwait. Washington, DC: International Organization for Migration.

51

Jamal, M. 2015. The "Tiering" of Citizenship and Residency and the "Hierarchization" of Migrant Communities: The United Arab Emirates in Historical Context. *International Migration Review* 49(3): 601–632.

Kagan, S., and R. Cholewinski. 2022. Reforming the Sponsorship System in the Gulf Cooperation Council Countries: Opportunities and Challenges as a Result of COVID-19 and the Fiscal Crisis. Explanatory Note No. 1/2022, GLMM.

Kearney, L. 2022. Oil Ends Year of Wild Price Swings with 2nd Straight Annual Gain. Reuters. 30 December. https://www.reuters.com/business/energy/oil-set-close-higher-2022-turbulent -year-marked-by-tight-supplies-2022-12-30/

Kingdom of Saudi Arabia. n.d.-a Saudi Vision 2030. https://vision2030.gov.sa/en

Knight Frank. 2021. *Saudi Arabia Education Report 2021*. Riyadh, Kingdom of Saudi Arabia: Knight Frank Middle East Limited. https://argaamplus.s3.amazonaws.com/63ef7efd-d6e9-451c-956d -a4c5408ad119.pdf

Labour Market Regulatory Authority, Bahrain. 2022. Bahrain Labour Market Indicators, Q2 2022. Manama, Bahrain: Labour Market Regulatory Authority.

Lal, D. K. 2022. Introduction to Skills Verification Program in Saudi Arabia. Dubai: Edoxi Training Institute. https://www.edoxi.com/studyhub-detail/skills-verification-program

LinkedIn Economic Graph. 2022. *Global Green Skills Report 2022*. https://economicgraph.linkedin .com/content/dam/me/economicgraph/en-us/global-green-skills-report/global-green-skills -report-pdf/li-green-economy-report-2022.pdf

Lopesciolo, M., D. Muhaj, and C. Pan. 2021. The Quest for Increased Saudization: Labor Market Outcomes and the Shadow Price of Workforce Nationalization Policies. Center for International Development at Harvard University Working Paper No. 132. https://growthlab.cid.harvard.edu /files/growthlab/files/2021-07-cid-wp-132-saudi-labor-market-outcomes.pdf

Louër, L. 2015. The Arab Spring Effect on Labor Politics in Bahrain and Oman. *Arabian Humanities* 4. https://doi.org/10.4000/cy.2865

——. 2021. Au-delà du paradigme de l'état rentier. Citoyenneté sociale dans les monarchies du Golfe, Paris: SciencesPo-CERI. https://www.sciencespo.fr/ceri/fr/content/dossiersduceri/au-dela-du -paradigme-de-l-etat-rentier-citoyennete-sociale-dans-les-monarchies-du-golfe

Lucente, A. 2022. Oil Prices Fall to Lowest since January Despite Saudi-Backed Production Cut. *Al-Monitor*. 8 December. https://www.al-monitor.com/originals/2022/12/oil-prices-fall-lowest -january-despite-saudi-backed-production-cut#ixzz7s3ww2ieB

Malit, F., and A. Al-Youha. 2016. Kenyan Migration to the Gulf Countries: Balancing Economic Interests and Worker Protection. *Migration Information Source*. https://www.migrationpolicy.org/article /kenyan-migration-gulf-countries-balancing-economic-interests-and-worker-protection

Malit, F., and G. Naufal. 2017. Labour, Migration, Skills Development and The Future of Work in the Gulf Cooperation Council (GCC) Countries. ILO Working Paper. Paris: International Labour Organization. https://www.ilo.org/newdelhi/whatwedo/publications/WCMS_634982/lang --en/index.htm

Mati, A., and S. Rehman. 2022. Saudi Arabia to Grow at Fastest Pace in a Decade. Washington, DC: International Monetary Fund. https://www.imf.org/en/News/Articles/2022/08/09/CF-Saudi -Arabia-to-grow-at-fastest-pace

MHRSD. 2021. *Annual Report 2021*. Riyadh, Kingdom of Saudi Arabia: Ministry of Human Resources and Social Development.

———. 2022. Procedural Guide for the Decree on Engineering Profession Saudization (in Arabic). Riyadh, Kingdom of Saudi Arabia: Ministry of Human Resources and Social Development. https://www.hrsd.gov.sa/ar/knowledge-centre/decisions-and-regulations/regulation-and -procedures/728303

Migrant-Rights.org. 2014. Kuwait Bans Ethiopian Migrants and Deports Nearly 13,000 Domestic Workers. Migrant-Rights.org. https://www.migrant-rights.org/2014/03/kuwait-bans-ethiopians -and-deports-13000-domestic-workers/

———. 2022. Saudi Arabia and Indonesia Sign Bilateral Agreements for the Recruitment of Domestic Workers. Migrant-Rights.org. 5 September. https://www.migrant-rights.org/2022/09/saudi -arabia-and-indonesia-sign-bilateral-agreements-for-the-recruitment-of-domestic-workers

Ministry of Commerce, Industry and Investment Promotion, Oman. n.d. Foreign Investors' Residencies. https://www.tejarah.gov.om/InvestorResidency/en

Ministry of Education, Kingdom of Saudi Arabia. n.d. Private Universities and Colleges. https://www .moe.gov.sa/en/education/highereducation/Pages/PrivateUniversity.aspx#

Ministry of Labor, Oman. 2022. Ministerial Decision 235/2022 Governing the Practice of Some Professions. https://mjla.gov.om/eng/legislation/decisions/details.aspx?Id=1831&type=D

aus dem Moore, J. P., V. Chandran, and J. Schubert. 2018. The Future of Jobs in the Middle East. World Government Summit, Dubai. https://www.mckinsey.com/~/media/mckinsey/featured%20 insights/middle%20east%20and%20africa/are%20middle%20east%20workers%20ready%20 for%20the%20impact%20of%20automation/the-future-of-jobs-in-the-middle-east.pdf

National Center for Statistics and Information, Oman. 2019. *Population Statistics*. Issue 8.

Oman Vision 2040 Implementation Follow-up Unit. n.d. Oman Vision 2040: Pillars and Priorities. https://www.oman2040.om/mahawer-en.html

Prabhu, C. 2021. Oman to Unveil Strategy for AI, Advanced Technologies. *Oman Daily Observer*. 27 October. https://www.omanobserver.om/article/1108794/business/economy/oman-to-unveil -strategy-for-ai-advanced-technologies

PRO Partner Group. 2019. Omanisation in Oman. Abu Dhabi: PRO Partner Group. https://www .propartnergroup.com/blog/2019/12/what-is-omanisation/

PACI. n.d. Data for Selected Nationalities. Kuwait City: Public Authority for Civil Information. https://www.paci.gov.kw/stat/StatIndicators.aspx

———. 2022. Statistical Bulletin for Labour, Q2, 2022. Kuwait City: Public Authority for Civil Information. Not available online outside Kuwait.

Priya D'Souza Consultancy. 2019. Population of Qatar by Nationality: 2019 Report. http://priyadsouza .com/population-of-qatar-by-nationality-in-2017/

Qatar Center For Artificial Intelligence. 2020. Impact of Artificial Intelligence on Qatar's Labor Market. Qatar Computing Research Institute, Hamad Bin Khalifa University. https://qcai-blog.qcri.org /wp-content/uploads/2020/11/The-Impact-of-Artificial-Intelligence.pdf

Qatar Foundation. n.d. Academic Bridge Program. Doha: Qatar Foundation. https://www.qf.org.qa /education/academic-bridge-program

Qatar Planning and Statistics Authority. 2010. Census (Foreign Workers, All Sectors).

———. 2020. Census (Foreign Workers, All Sectors).

Reuters. 2023. IMF Lowers Saudi 2023 Growth Forecast to 2.6%. Reuters. 31 January. https://www .reuters.com/markets/imf-lowers-saudi-2023-growth-forecast-26-2023-01-31/

Roberts, L. 2008. Saudi Shuns Bangladeshi Labour—Ban Confirmed. *Arabian Business*. 24 March. https://www.arabianbusiness.com/saudi-shuns-bangladeshi-labour-ban-confirmed-51923.html

Saudi Gazette. 2021. Finance, Insurance Sectors to Implement Total Saudization, Replacing 91,000 Expats. *Saudi Gazette*. 27 July. https://saudigazette.com.sa/article/609193

——. 2022. Saudi Arabia to Launch Skill Verification Program in India. 28 December. https://www.zawya.com/en/world/middle-east/saudi-arabia-set-to-launch-skill-verification-program-in-india-hwuhkbts

——. 2023. 400,000 Saudi Employed in Private Sector during 2022. *Saudi Gazette*. 17 January. https://www.zawya.com/en/economy/gcc/400-000-saudi-employed-in-private-sector-during-2022-k1hfhrmp

Sim, L.-C. 2022. *Renewable Power Policies in the Arab Gulf States*. Middle East Institute. 8 February. https://www.mei.edu/publications/renewable-power-policies-arab-gulf-states

Sophia, M. 2022. Bahrain to Offer Long-Term Golden Permanent Residency Visa to Attract Talent. *The National*. 7 February. https://www.thenationalnews.com/business/economy/2022/02/07/bahrain-to-offer-long-term-residency-to-attract-talent/

Suri, N., and M. Kumar. 2020. Mapping Skills: A Roadmap for India and the UAE. ORF Special Report No. 112, July. Observer Research Foundation. https://www.orfonline.org/research/mapping-skills-a-roadmap-for-india-and-the-uae-69202/

Tayah, M.-J., and H. Assaf. 2018. The Future of Domestic Work in the Countries of the Gulf Cooperation Council. Abu Dhabi Dialogue, 2018. http://abudhabidialogue.org.ae/sites/default/files/document-library/2018%20ADD%20SOM%20-%20Future%20of%20Domestic%20Work%20Report%20-min.pdf

Times of Oman. 2021. 180 Cases of Fake Omanisation Identified by Ministry of Labour. *Times of Oman*. 4 March. https://timesofoman.com/article/98861-180-cases-of-fake-omanisation-identified-by-ministry-of-labour

UAE Cabinet. 2022. UAE Cabinet Resolution 18 of 2022. https://www.mohre.gov.ae/handlers/download.ashx?YXNzZXQ9Njc4Nw%3D%3D

UNESCO. 2020. *National AI Strategy 2031 and the National Program for Artificial Intelligence*. Paris: United Nations Educational, Scientific and Cultural Organization. https://en.unesco.org/creativity/policy-monitoring-platform/national-ai-strategy-2031

United Arab Emirates. 2023. Emirati Nationality. https://u.ae/en/information-and-services/passports-and-traveling/emirati-nationality

United Nations, Department of Economic and Social Affairs, Population Division. 2019. *International Migrant Stock 2019*. United Nations database, POP/DB/MIG/Stock/Rev.2019. https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates19.asp

——. 2022. World Population Prospects 2022, Online Edition. File POP/06-1: Percentage of total population by select age group, region, subregion and country, annually for 1950–2100.

Young, K. 2016. *Understanding Vision 2030: Anticipating Economic Change in Saudi Arabia*. Washington, DC: The Arab Gulf States Institute in Washington. https://agsiw.org/understanding-vision-2030-anticipating-economic-change-in-saudi-arabia/

Appendix

Table 2.A1: Total and Foreign Populations in the Six Gulf Cooperation Council States (Mid-Year Figures, 2000–2021)

	Bahrain		Kuwait		Oman		Qatar		Saudi Arabia		UAE	
	Total	NN	Total	NN	Total	NN	Total	NN	Total	NN	Total	NN
2000	637,582	239,361	2,217,258	1,375,468	2,401,256	623,571	613,969	…	20,476,393	5,571,093	…	…
2001	661,317	251,702	2,309,102	1,438,819	2,477,687	651,563	643,364	…	20,979,425	5,703,704	…	…
2002	710,554	283,308	2,419,928	1,521,643	2,537,742	668,162	676,498	…	21,494,813	5,839,481	…	…
2003	764,519	318,885	2,546,684	1,618,998	2,340,815	559,257	713,859	…	22,022,864	5,978,502	…	…
2004	823,744	358,935	2,753,656	1,797,422	2,415,576	612,645	798,059	…	22,563,886	6,119,899	…	…
2005	888,824	404,018	2,991,189	1,998,972	2,508,837	666,153	906,123	…	23,329,584	6,475,427	4,106,427	3,280,932
2006	960,425	454,751	3,182,960	2,159,644	2,577,062	693,486	1,042,947	…	24,121,890	6,851,709	…	…
2007	1,039,297	511,864	3,399,637	2,345,039	2,743,499	820,802	1,218,250	…	24,941,298	7,249,962	…	…
2008	1,103,496	561,909	3,441,813	2,354,261	2,867,428	900,248	1,448,479	…	25,787,025	7,671,475	…	…
2009	1,178,415	620,404	3,484,881	2,365,970	3,173,917	1,156,358	1,638,626	…	26,660,857	8,117,611	…	…
2010	1,228,543	657,856	3,582,054	2,433,691	2,773,479	816,143	1,715,098	…	27,563,432	8,589,817	8,264,070	…
2011	1,195,020	610,332	3,697,292	2,514,107	3,295,298	1,282,140	1,732,717	…	28,376,355	8,970,670	8,394,019	…
2012	1,208,964	609,335	3,823,728	2,611,292	3,623,001	1,530,437	1,832,903	…	29,195,895	9,357,447	8,526,425	…
2013	1,253,191	638,361	3,965,144	2,722,645	3,855,206	1,683,204	2,003,700	…	29,380,130	10,170,377	8,661,345	…
2014	1,314,562	683,818	4,091,993	2,816,136	3,992,893	1,732,188	2,216,180	…	29,997,101	10,684,405	8,798,841	…
2015	1,370,322	722,487	4,239,006	2,931,401	4,159,102	1,814,156	2,437,790	…	30,890,736	11,198,097	8,938,974	…
2016	1,423,726	759,019	4,411,124	3,073,431	4,414,051	1,986,226	2,617,634	…	31,787,580	11,705,998	9,121,167	…
2017	1,501,116	823,610	4,500,476	3,130,463	4,559,963	2,054,594	2,724,606	…	32,612,846	12,185,270	9,304,277	…
2018	1,503,091	813,377	4,621,638	3,218,525	4,601,706	2,022,470	2,760,170	…	33,413,660	12,645,033	9,366,828	…
2019	1,483,756	781,929	4,776,407	3,344,362	4,617,927	1,962,783	2,799,202	…	34,218,169	13,114,971	9,503,738	…
2020	1,472,204	758,941	4,670,713	3,210,743	4,481,042	1,858,516	2,833,679	…	35,013,414	13,583,286	9,282,410	…
2021	1,504,365	785,032	4,385,717	2,897,001	4,479,373	1,712,565	2,748,162	…	34,110,821	12,420,173	…	…

… = not available, NN = non-nationals, UAE = United Arab Emirates.

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Table 2.A2: Employed Population and Percentage of Non-Nationals in Employed Population in Gulf Cooperation Council Countries (2015–2021) (Private Sector)

	Bahrain		Kuwait		Oman		Qatar		Saudi Arabia		UAE	
	Total pop. employed in private sector	% NN in private sector	Total pop. employed in private sector	% NN in private sector	Total pop. employed in private sector	% NN in private sector	Total labor force in private sector	% NN in private sector	Total pop. employed in private sector	% NN in private sector	Total pop. employed in private sector	% NN in private sector
2015	546,572	81.5	1,480,249	95.3	1,583,462	86.8	1,511,627	99.2	10,140,936	83.0	4,734,285	...
2016	611,229	83.3	1,580,347	95.5	1,728,019	87.1	1,602,630	99.4	10,168,137	83.5	4,851,582	...
2017	599,714	82.7	1,638,020	95.7	1,741,496	86.3	1,606,550	99.4	9,701,960	81.7	5,012,634	...
2018	608,220	82.7	1,698,528	95.7	1,687,285	85.1	1,652,818	99.4	8,599,487	80.2	4,980,272	...
2019	605,824	82.4	1,714,063	95.7	1,626,288	83.9	1,661,807	99.4	8,138,590	79.1	5,094,407	...
2020	564,641	81.5	1,567,114	95.3	1,402,961	81.8	1,710,948	99.5	8,026,901	78.2	4,799,196	...
2021	557,863	80.4	1,434,824	95.0	1,398,325	80.9	1,593,673	99.4	8,084,253	76.4	4,903,612	...

... = not available, NN = non-nationals, UAE = United Arab Emirates.

Sources: National institutes of statistics. See https://gulfmigration.grc.net/gcc-number-of-employed-workers-and-percentage-of-non-nationals-in-employed-population-in-gcc-countries-2015-2021-private-sector/.

Enhancing Recruitment and Emigration Processes for Migrant Workers: Government Digital Platforms in India and Sri Lanka[1]

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3.1 Introduction

Despite efforts over the years, regulating recruitment has remained challenging for many countries of origin and destination; the recruitment of migrant workers can often involve exploitative and fraudulent practices. Recent surveys supported by the International Labour Organization (ILO) confirm what is already well known: that recruitment costs are excessively high and exceed legal limits in many countries.[2] Digitalization of recruitment and emigration processes has the potential to enhance transparency, reduce migration costs and transaction time, and increase efficiency.

The coronavirus disease (COVID-19) paused labor migration programs in 2020–2022, but with the resumption of labor flows across Asia and the Pacific, governments must give increased attention to the regulatory frameworks surrounding workers' mobility, with the intention to ensure that recruitment and emigration processes are transparent, fair, and supportive of migrant workers' rights, while furthering the effective and efficient implementation of national policies. In a joint study on digital recruitment practices, the ILO and the International Organization for Migration found that e-recruitment systems offer "promising results in promoting institutional transparency and oversight... [which] can subsequently lead to the reduction of migration costs and, in some cases, reduce the potential for collusion between private recruitment agencies (PRAs) and placement agencies in countries of destination" (ILO and IOM 2020: 1). At the same time, while countries need to utilize new technologies to improve services, digital platforms by themselves are not sufficient to address unfair recruitment practices; institutional commitment, investment, and effective oversight are still needed.

This chapter looks at the digitalization of the recruitment and emigration processes of two South Asian countries of origin: India and Sri Lanka. Both countries have introduced digitalization processes in recruitment and emigration, and these programs in terms of coverage and years of operation are relatively advanced. There is little research or up-to-date literature available on these systems.

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[1] The authors thank Aiko Kikkawa and Pitchaya Sirivunnabood for their comments and review.
[2] For reference, see ILO and Bangladesh Bureau of Statistics (2020) and ILO (2022).

Two country notes were prepared by researchers who examined the online systems and who also interviewed key informants. Based on the country notes that review India's eMigrate and Sri Lanka's digital portal for migrant worker recruitment and emigration, this chapter compares these two platforms, examining their features and processes. By reviewing their performance in terms of transparency, accessibility, accountability, and efficiency, this chapter identifies some of the strategies that governments can use to improve digital recruitment and emigration policies across the region.

3.2 Context

With 24 million migrant workers in Asia and the Pacific (ILO 2021a)—nearly half of them women—labor migration has been a driver of economic and social development in the region (in both countries of origin and destination, and benefiting migrant workers and employers). India has one of the largest shares of migrant workers working abroad with over 30 million Indians overseas (Wadhawan 2018) who contributed approximately $100 billion of inward remittances in 2022 (Ratha et al. 2022). Similarly, with over 200,000 workers departing the country every year between 2010 and 2018, Sri Lanka is one of the main labor sending countries in South Asia. In 2022, 311,161 workers departed for overseas work from Sri Lanka (Ratnayake 2023). The country received remittance inflows of over $3.7 billion in 2022 (Central Bank of Sri Lanka 2022).

The International Telecommunication Union finds that over 60% of the population in Asia and the Pacific uses the internet, with a marked growth in users (24% increase) during 2019–2020. In India, the proportion of internet users increased from 17% in 2017 to 47% in 2021 (LIRNEasia 2021b), and in Sri Lanka, internet usage rates increased from 37% in 2018 to 44% in 2021 (LIRNEasia 2021a). This increase was driven by the restrictions on movement and mobility that were imposed by governments, as more people were forced to rely on digital channels for work and education during the COVID-19 pandemic. Mobile cellular subscription in South Asia reached 85% in 2021 (World Bank 2022).

Government services have also moved increasingly online, but this trend, while hastened by COVID-19, predates the pandemic. Governments have been turning to digital online platforms for recruitment and for emigration procedures such as work permit applications, predeparture orientation, and visa applications (ADB 2022).

The move toward digitalization of recruitment and emigration lies not only in the interests to streamline and facilitate migration processes; it also reflects the larger policy drive to make recruitment processes transparent and to reduce costs and risks of exploitation for migrant workers. The Global Compact for Safe, Orderly and Regular Migration, adopted under the aegis of the United Nations (UN) in 2018, includes as Objective 6 to facilitate fair and ethical recruitment and safeguard conditions that ensure decent work. It commits adopting states to review existing recruitment mechanisms to guarantee that they are fair and ethical, and to protect all migrant workers against all forms of exploitation and abuse in order to guarantee decent work and maximize the socioeconomic contributions of migrants in their countries of origin and destination. The UN Sustainable Development Goal target 10.7 was set to "facilitate orderly, safe, and responsible migration and mobility of people, including through implementation of planned and well-managed migration policies," with recruitment cost as the related indicator. In 2016, based on international labor standards, the ILO developed global guidance in the form of the General Principles and Operational Guidelines for Fair Recruitment. One of the general principles states that no recruitment fees or related costs should be charged to, or otherwise borne by, workers or job seekers (operational guideline 17).

3.2.1 Policy Landscape for the Digitalization of Recruitment and Emigration in India and Sri Lanka

In **India**, the Emigration Act of 1983 regulates the emigration of Indian citizens for employment purposes. The act establishes the requirement of obtaining emigration clearance from the office of Protector of Emigrants (POE) under the Ministry of External Affairs for those holding Emigration Check Required (ECR) passports.[3] In 2017, the law was revised, and clearance is now required only for 18 listed countries.[4] The act also makes it mandatory for recruitment agencies to be registered and lays out the rules for registration, renewals, and suspension for recruiting agents. It provides for penalties for violations of its provisions and limits on the fees that migrants could pay.

In 2006, the Government of India embarked upon its National E-Governance Plan with the vision to "[m]ake all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realise the basic needs of the common man" (Chauhan 2009).

Currently, five portals are part of India's digital landscape related to overseas recruitment: (i) eMigrate (under Ministry of External Affairs); (ii) National Career Service (under Ministry of Labour); (iii) Aatmanirbhar Skilled Employee Employer Mapping or ASEEM (under Ministry of Skills Development and Entrepreneurship); (iv) an online consular services management system named MEA in Aid of Diaspora in Distress or MADAD (under Ministry of External Affairs); and (v) the Skilled Workers Arrival Database for Employment Support or SWADES (under Ministry of External Affairs).

The main platform for the management of emigration is the eMigrate website, operated by the Ministry of External Affairs. This chapter focuses on the eMigrate website. As for the other platforms, the National Career Service platform provides information on job opportunities, training, and career advice; ASEEM provides job matching for skilled workers; MADAD is a grievance portal by which migrant workers can seek assistance from the Indian consulates abroad; and SWADES supports returning migrant workers with job assistance.

In **Sri Lanka**, SLBFE Act No. 21/1985, amended by Act No. 4 of 1994 and Act No. 56 of 2009, is the primary legislation that deals with foreign employment. The provisions of this act apply to the recruitment of Sri Lankans for employment outside the country. The Sri Lanka Bureau of Foreign Employment (SLBFE), the foremost organization in regulating the foreign employment industry, was established in 1985 under this act and receives its power, duties, and obligations from the same act. In 2007, for the first time, a separate Ministry of Foreign Employment was established in Sri Lanka in recognition of the significant contribution made by Sri Lankan migrant workers to the national economy. At present, the subject of foreign employment is under the purview of the Ministry of Labour and Foreign Employment.

The Government of Sri Lanka formulated its first policy on labor migration, the National Labour Migration Policy, in October 2008. Subsequently, the Ministry of Labour and Foreign Employment has taken steps to update the policy and formulated the Policy on Migration for Employment and a National Action Plan for fulfilling Sri Lanka's commitment and responsibility toward new developments in the global and local context, including international conventions, regional consultative processes, the Sustainable Development Goals, and the Global Compact for Safe, Orderly and Regular Migration.

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[3] ECR passport holders are those who do not have their secondary school diploma, which is obtained when they have passed the 10th grade. With lower education levels, they are assumed to be more vulnerable and susceptible to exploitation and therefore in need of additional protection.

[4] These are Saudi Arabia, United Arab Emirates, Kuwait, Oman, Qatar, Bahrain, Jordan, Malaysia, Libya, Yemen, Sudan, South Sudan, Indonesia, Afghanistan, Syria, Thailand, Lebanon, and Iraq.

The need to introduce technology in labor migration processes has been highlighted in Sri Lanka's national policy on labor migration, which calls to invest in labor migration, expand on national initiatives to develop global skills partnerships, and improve financial inclusion through new digital technology, training and skills matching, and better data management (Government of Sri Lanka 2022).

The SLBFE Corporate Strategic Plan for 2022–2026 highlighted the need for "[i]mproving Information Technology infrastructure to support promotional and related activities... [and to i]ncrease efficiency of recruitment process by simplifying existing rules, regulations and recruitment procedures through joint stakeholder approach and also with the use of IT in response to changing market/technological improvement trends/international standards" (SLBFE 2021: 30)

State-led digital platforms related to the recruitment and emigration processes for migrant workers are solely managed by the SLBFE. The Department of Immigration and Emigration manages other digital platforms for the issuance of passports to Sri Lankan citizens and for processes related to border control. Sri Lanka's labor migration management system includes the SLBFE's official website and information technology (IT) system, which facilitates all stakeholders to obtain information and provides a portal for the government, migrant workers, licensed foreign employment agencies (LFEAs), and foreign employers (such as private companies and their representative recruitment agencies) to obtain digital services offered by the SLBFE.

3.2.2 Government of India's E-Labor Migration Management System (eMigrate)

As part of the Government of India's implementation of its National E-Governance Plan, the eMigrate system was implemented in 2012 to digitalize international recruitment for emigration.[5] With changes in technology and new requirements from the system, a second version of the eMigrate platform is

Table 3.1: Planned Changes to India's eMigrate Platform

	Version 1 (Current Version)	Version 2 (Planned Revisions)
Vision	To transform emigration into a simple, transparent, orderly, and humane process	To maintain transparency, simplicity, orderliness, user-friendliness, and human process in the project and to increase efficiency in service delivery to the end user
Objectives	(i) Design and implement processes and applications that help the emigration system achieve the project vision (ii) Bring changes in processes and technology which result in significant improvement in the overall experience of an emigrant worker by enhancing the quality of services to emigrant workers (iii) Introduce systems that simplify different processes in the emigration cycle and improve their effectiveness (iv) Establish interfaces among key stakeholders that are easy to access and interoperable	(i) Provide easy, anywhere, and anytime access to government services (both informational and transactional) to ensure reliability, efficiency, transparency, and accountability (ii) Efficiently deliver all public services in electronic form with faster turnaround time through the portal (iii) Reduce the number of visits of citizens/stakeholders to a government office for availing the services (iv) Reduce the need for direct interaction of citizens with the government and encourage e-interaction and efficient bidirectional communication through the portal (v) Enhance perception and image of the government and its constituent departments (vi) Achieve extensive capacity building and training of field level functionaries to ensure smooth migration to electronic delivery of e-services and phase out manual delivery of services, if any
Additional features		Data analytics have been introduced into the new version to provide information on trends, etc.

Sources: Version 1 from Government of India eMigrate Brochure (emigrate.gov.in). Version 2 from Government of India (2022a).

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[5] The website was rolled out in 2014 and has been operational since.

being designed and is expected to be rolled out in 2023. Table 3.1 summarizes the planned changes to the eMigrate platform.

Key features of eMigrate (current version)

The eMigrate system covers multiple processes, from the stage of receiving job orders from employers, to registering employers and recruiters and their management (including suspending and canceling registration), to providing emigrating ECR workers with emigration clearance, insurance, and handling grievances. Some processes are synchronized with other government systems such as the immigration process with the Bureau of Immigration (BOI) under the Ministry of Home Affairs for automatic verifications, and with the Pravasi Bharatiya Bima Yojana (PBBY) for insurance.[6] The number of visitors on the eMigrate site since 2016 has been 12.7 million. On average, around 1,800 applications are submitted daily online for emigration clearance and 1,700 clearances are made daily.

The following are the processes that are undertaken through the eMigrate system:

- Demand approval
- Emigrant registration
- Employer and/or project exporter registration, rating, blacklisting
- Recruiter registration, renewal, audit, suspension, rating
- Immigration process
- Return process
- Insurance process
- Grievance management process

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To recruit from India, foreign employers have to register on eMigrate; registration is valid for 5 years. Once the foreign employer is approved by the embassy, the employer may raise a demand for workers on the eMigrate portal. The demand provides information related to job category, role, number of job vacancies, salary offered, other terms and conditions, and the expiry date of the demand. Job identification details are created once this information is fed into the system. At this stage, the employer can select a registered recruitment agency from the list on the portal or opt for direct recruitment. In the case of a recruitment agency being entrusted with the recruitment, the foreign employer sends the demand details and the power of attorney created through the eMigrate system to the recruitment agency, and the agency must subsequently sign and upload these documents in eMigrate.

The recruitment agency, whose registration is also valid for a period of 5 years, sources candidates and registers selected candidates for clearance. The system creates a job identification and a contract, which the emigrant signs alongside the employer and the recruiter. This document is then uploaded with other documents for emigration clearance.

The other documents to be uploaded include the demand letter, power of attorney, minimum referral wages, visa copy, PBBY insurance, ticket, and medical clearance. These are validated by the POE, which grants the emigration clearance.

Once the emigration clearance is approved, the eMigrate system automatically sends the data to the server of the BOI, and these data are available in all 168 airports and ports of India from where a person may exit. At any exit point, the BOI is able to automatically validate emigration clearance and clear the emigration. After departure, this information is shared with eMigrate and the concerned Indian mission.

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[6] The PBBY is a mandatory insurance scheme for emigrating ECR Indian workers, covering overseas Indian workers abroad from accidental death or permanent disability.

Unlike the SLBFE portal, eMigrate does not provide services or information with respect to employment opportunities and job seekers (that is, job placement and matching). Recruitment-related functions and services in eMigrate focus on the regulation of recruitment, including approval of demand, and the streamlining of administrative processes.

As noted earlier, ECR passport holders—that is those nationals who have not completed secondary education and are deemed to be more at risk of exploitation—have to obtain emigration clearance. The process of obtaining emigration clearance is fully integrated in eMigrate; 373,434 migrant workers received emigration clearance through eMigrate in 2022 (Government of India 2023). At the same time, Emigration Check Not Required (ECNR) migrant workers, except for nurses,[7] do not use the system, and this comprises a significant number.

Key advantages of eMigrate

Fully online system with streamlined administrative processes. eMigrate brings employers, recruiters, and emigrants on a single platform. With the introduction of electronic signatures, the process is paperless, and clearance can be downloaded from any online location. The need for in-person visits to government offices should be reduced by this, since emigrants can receive their emigration clearance online, all the registration processes for recruiters are online, employers can also register online, and grievances can be made online. To support the online process, employer training videos are provided on the eMigrate system.

The documentation verifications are also all completed on the platform. For example, emigrants' data captured on eMigrate are verified by the passports' database, foreign employers' data by the diplomatic missions, emigration clearance data by the POE, recruitment agents' data by the Protector General of Emigrants, and seafarers' data by the Directorate General of Shipping, and travel data are captured by the BOI and shared with the eMigrate system. Insurance data are verified automatically. Applicants can track the status of their emigration clearance application online, while the authorities can also track the time being taken to process applications at any of the clearance offices.

Integrated coordination system across government agencies in India. The eMigrate system brought together in a centralized location, for the first time, the following departments that are involved in migration processes: Bureau of Immigration (Ministry of Home Affairs), Passport Seva Project, Overseas Missions of India, Protector General of Emigrants and Overseas Employment, and state police. Prior to eMigrate, there was no system to verify passport authenticity or emigration clearance genuineness at the point of exit by the immigration authority. eMigrate connected these various systems of the government and the Protector of Emigrants offices that grant emigration clearance, and it brought them on to one platform, making verification across platforms seamless and with no scope for human interference. The system also interlinks with the MADAD portal for grievances.[8]

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[7] The eMigrate system introduced mandatory clearance for nurses as a special category. They are the only ECNR category to be included in the system, and this is because nurses are predominantly women. The system also prevents private recruiters from hiring domestic workers; they have to go through the government recruitment agencies.

[8] In 2018, the eMigrate system was expanded to include clearance of seafarers in collaboration with the Directorate General of Shipping, Ministry of Shipping. The aim for this was to prevent Indian seafarers from leaving Indian ports and/or airports unless they had been recruited through registered recruitment and placement services or Indian shipowners (Government of India 2018). The Directorate General of Shipping database was synced with the eMigrate system for the purpose of verification of seafarers' details at immigration checkpoints.

Improved accountability of employers. eMigrate makes it mandatory for employers to register, provide the minimum referral wages, and publish the signed employment contract. The Government of India can check and confirm these details with its diplomatic missions abroad, thereby improving protection of workers from fraudulent employers. Employers who have a pending grievance against them cannot be considered for renewal. The system also automatically detects foreign employers with complaint cases pending against them and alerts the POE of these foreign employers being placed on a watch list or blacklist at the time of seeking clearances. The system automatically rejects any job demand or order that is less than the minimum referral wage established for the occupation by the embassy, thereby protecting workers with minimum wages. A detailed list of the minimum referral wages is available on the eMigrate website. All of these features enhance the accountability of employers.

Support to workers. For migrant workers who register with eMigrate, the platform attempts to provide them with some support services. For example, an "e-locker" is provided for migrants that allows them to access their documents from anywhere and at any time, providing them with information even if they lose their original documents. An i-card is also provided that contains all their details and a copy of the contract that includes information on the working conditions and wages, and bears the signature of the employer and the recruiter.

It is mandatory for all migrants who require emigration clearance to buy an insurance policy for accidental death and injury. The eMigrate system allows migrant workers to buy a PBBY policy online from the given list of insurance providers, which are assured suppliers listed with the Insurance Regulatory and Development Authority of India. This guarantees some minimal protections for the workers who go through the system. The portal does not cover the many migrants who go outside of the system (such as ECNR candidates). The platform also has the possibility for predeparture orientation training registration, which is not mandatory but is available online and free of cost for migrant workers (Government of India 2022b). Since the training was introduced in 2018, 122,000 workers have been trained and certified (as of 2022; Sharma 2023).

Grievance handling. Indian migrant workers currently have access to two systems of complaints and grievance handling via MADAD and eMigrate. Complaints that require consular assistance are forwarded online to Indian missions through the MADAD portal. The grievances of emigrants who have been subjected to recruitment-related exploitation (for example, being cheated by the recruitment agency) are reported in the eMigrate portal. The two portals are interlinked for easier information retrieval and reference. eMigrate complaints are forwarded to the concerned state governments and police authorities, urging them to apprehend illegal agents and prosecute them. In May 2016, the Ministry of External Affairs issued a standard operating procedure to be followed by states on receipt of complaints from emigrants concerning illegal agents. During 2015–2022, 81,869 grievances were registered in MADAD; 96% of them have been resolved.

Up-to-date data for research and policymaking. Real-time data on the number of migrants who receive clearance, recruiters, employers' status, etc. are available to the public. This helps to inform research and policy making. Granular data are available for the government to inform policymaking. For example, the government can search how much a carpenter gets paid in Qatar or in the United Arab Emirates and match those wages across all the 18 ECR countries. Workers' passports, insurance, and whether they underwent predeparture training are also captured in the system. Information is also available to the government on complaints and their analysis. Trend analysis of emigration data

has been used by government agencies, UN bodies, and academia. The system also serves as a useful database during emergencies, as migrant worker locations are known and can be tracked.

The information that the public can access includes the following list. The data are available on some of these from 2007, allowing for comparison between the pre- and post-eMigrate eras of emigration clearance.

- Monthly POE-wise emigration clearance
- POE-wise emigration clearance given to recruitment agencies by each state
- POE-wise emigration clearance given for direct recruitment by foreign employers by each state
- Monthly POE-wise emigration clearance given to recruitment agencies
- Monthly POE-wise emigration clearance given for direct recruitment by foreign employers
- Country-wise ECR emigration clearance given by each state
- ECR country-wise emigration clearance given by the top 100 districts
- District-wise emigration clearance given to female emigrants
- District-wise emigration clearance given to nurses

Key users of eMigrate

Table 3.2 illustrates how different users of the eMigrate portal use the platform.

Table 3.2: Uses of eMigrate by User Type

Users	Purpose of Use
Government authority (PGE/POE)	Conduct scrutiny
	Blacklisting/de-registration/de-accreditation of RAs/EAs
	Approve clearances, registrations, etc.
	Set standards
	Monitor performance of employers, RAs, EAs who are recruiting ECR candidates
	Rate employers, RAs, EAs
	Prevent irregular emigration
	Disseminate information
	Redress grievances
Bureau of Immigration	Check that clearance is obtained for all emigrants
	Check that seafarers are going to registered ships
Embassy	Scrutinize foreign employers
	Approve employers
	Forward grievances
Recruitment agents/ Project exporters	Register/renew the agency's license
	Submit monthly information on recruitment
	Register emigrants for predeparture orientation
	Reply to show cause notice/communication from PGE
	View and update grievances
	Make payments online

Table 3.2 *continued*

Users	Purpose of Use
Employers	Register
	Raise demands/job orders
	Hire directly
	Provide emigrant clearance
Emigrants	Track applications
	Check RA status, employer status
	Buy PBBY policy
	Obtain emigration clearance certificate
	Find minimum referral wage terms
	Lodge grievances
	Access e-locker, electronic i-card
	Register for predeparture orientation
Family members	Facilitate registration of insurance claims
	File and follow up on grievances
Others (CSO, researchers, etc.)	Access real-time data on emigration clearance
	Obtain policy-related circulars/orders
	File and follow up on grievances

CSO = civil society organization, EA = employment agency, PBBY = Pravasi Bharatiya Bima Yojana, PGE = Protector General of Emigrants, POE = Protector of Emigrants, RA = recruitment agency.

Source: Government of India (2022a), and interviews carried out with stakeholders for this chapter.

As shown in Table 3.2, for migrant workers, the portal's main conveniences appear to be the ability to track the status of their emigration clearance applications and to use the grievance portal. The stakeholders who benefit the most from the features of the platform are government agencies, since they can track and coordinate easily the different steps involved in the emigration processes for migrant workers, as well as monitor and verify the recruitment agencies and employers' information and the complaints against them. The other main users of the portal appear to be recruitment agencies, which file documentation and conduct various registration and application processes for themselves as well as on behalf of the emigrating migrant workers and the employers (recruiters can register on the portal on behalf of employers via power of attorney).

Financial costs and funding sources for eMigrate

The system is fully funded by the Government of India through budgetary allocation to the Ministry of Overseas Indian Affairs. A snapshot of the budget of the first year (2012–2013) shows that in that year, the largest percentage of the budget went toward developing and running the system (Table 3.3). The other budgetary heads that were required for the system included project management, audit, and support from the government's not-for-profit company, the National Institute for Smart Government, under the Ministry of Electronics and Information Technology, which assists e-governance initiatives across the government systems.

While such detailed data are not available for the following years, the total cost of eMigrate was estimated to be approximately 500 million Indian rupees or $8 million in 2017, which is nearly double the 2013–2014 budget.

Table 3.3: eMigrate Budget, 2013–2014

Category	Amount (INR million)	Amount ($ in 2012)
Payment to implementing agency (Tata Consultancy Services)	196.6	3,678,892
Project management unit	10.9	203,967
Third-party audit	4.8	89,820
National Institute for Smart Government	7.7	144,086
TOTAL	220.0	4,116,765

INR = Indian rupee.

Source: Government of India (2013).

3.2.3 Government of Sri Lanka's E-Labor Migration Management System (SLBFE Portal)

The Sri Lanka Bureau of Foreign Employment (SLBFE) has operated its official website since 2000 with two main objectives: (i) to share information related to labor migration with the relevant stakeholders including migrant workers, family members of migrant workers, recruitment agencies, and other interested parties; and (ii) to be used as the main domain to provide digitalized services to key stakeholders.

The SLBFE has planned a portal upgrade to provide more user-friendly and efficient services to migrant workers and family members, recruitment agencies, and other stakeholders by means of further developing its IT system, the official website of the SLBFE, and related software applications. The responsibility to upgrade the SLBFE's website has already been assigned to a software development company, and the company is in the process of redesigning the website.

The SLBFE has also planned to create an IOS version of the SLBFE e-Connect mobile application and to add more digital services to the mobile application (such as a communication platform), to connect the website to the social media accounts of the SLBFE for employment promotional activities, and to provide welfare services and support for reintegration.

At the time of writing, the annual budget allocation for IT infrastructure by the SLBFE is 250.5 million Sri Lanka rupees.[9]

Key features of the SLBFE portal

Migrant workers in all stages of migration (predeparture, in service, and upon return) are able to obtain basic information and also to use digital services through the SLBFE portal; in a recent development, the complaint management system can now also be accessed from a mobile application. Software applications that are integrated with the website include the employment approval process, complaint management system, the SLBFE e-Connect mobile application, and the internal IT system that facilitates other processes connecting the SLBFE, employment and welfare sections of Sri Lanka's diplomatic missions and posts abroad, and recruitment agents in Sri Lanka and foreign countries. According to the SLBFE, in 2022, there were 128,888 job seekers registered with its job bank. The same year, 113,867 migrant workers departed for foreign employment through licensed foreign employment agencies, and another 178,087 obtained departure approval from the SLBFE under the self-departure category.

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[9] $1 = SLRs361 (as of February 2023).

The main features of the SLBFE portal are to enable:

- foreign employers and recruitment agencies to upload data and documents pertaining to job orders;
- officials of the employment and welfare sections of Sri Lanka's diplomatic missions and posts to view, download, upload, and forward attested documents to LFEAs and the SLBFE;
- LFEAs to view and download documents uploaded by foreign agents and companies and forward job orders to the SLBFE for approval (currently online and manual processes are both in place); and
- officials of the SLBFE to view, download, and upload data and approve job orders (details of approved job orders are visible to all relevant parties).

Following registration on the SLBFE website, Sri Lankan job seekers who seek foreign employment can find information on LFEAs, the approved job advertisements published by the LFEAs, and information about maximum recruitment fees chargeable by the LFEAs; they can also access the list of valid LFEAs as well as blacklisted or suspended LFEAs. Job seekers can also find information on foreign employment opportunities available under the special recruitment programs implemented by the SLBFE (Box 3.1). Once registered, job seekers can also apply for relevant qualification exams such as the Test of Proficiency in Korean (TOPIK) language exams, which are required for the Republic of Korea's recruitment program (Box 3.1).

Box 3.1: **Recruitment in the Framework of Bilateral Labor Migration Programs**

Through the website of the Sri Lanka Bureau of Foreign Employment (SLBFE), potential migrant workers from Sri Lanka can find information about the Republic of Korea's Employment Permit System (EPS) and Israel's Joint Pilot Program for Caregivers.

For the EPS in the Republic of Korea, in the initial screening process, which is fully administered by the Human Resources Development Service of the Republic of Korea, job seekers need to pass a language proficiency test. Those who have passed the Korean language proficiency test (TOPIK) can then take a skill-level test. Prospective EPS workers are then selected. In the online EPS, prospective workers indicate their specific preferences for industry and workplace location while simultaneously providing biographical information, including their age, height, weight, educational attainment, and work experiences. After job seekers pass the state-mandated medical and skill testing, their profiles are then registered in an online roster on the EPS platform. The development service verifies the job seekers' registered information, and through the use of a points-based rating system, it shortlists three candidates for each registered employer to recruit from.

For the caregivers' program in Israel, interested candidates are to register with the SLBFE. The SLBFE will short-list the registered applicants based on criteria such as relevant work experience, English language proficiency, and the age limit requirements for the caregiving program. For those who have duly provided documentary evidence for these qualifications, the SLBFE will send their profiles online to the Population and Immigration Authority of Israel. A lottery is held for eligible candidates. The SLBFE receives the results, informs the selected applicants via text message, and arranges information sessions. The SLBFE invites candidates for the next round, which is an interview conducted by a nongovernment organization based in Sri Lanka (appointed by the Israeli government). Applicants who clear the interview will have their details directly entered by this organization into the caregivers' database, which is managed by the Israeli Population and Immigration Authority of Israel. Israeli employers who have been given access to that database can then select candidates online for employment. The SLBFE receives information about the selected candidates as well as the employment contracts from the employers, which it then shares with the candidates.

Source: For the Republic of Korea's Employment Permit System, ILO and IOM (2020). For Israel, Ratnayake (2023).

The SLBFE is currently in the process of upgrading the online job bank to provide more efficient services to potential migrant workers, such as enabling them to post their curricula vitae and update their profiles, and also to facilitate LFEAs to search and view job seekers' profiles and select suitable candidates to fill the vacancies received from their foreign counterparts.

Foreign employers and recruitment agencies can create their profiles and submit job orders to the relevant Sri Lankan diplomatic missions in their respective countries. The SLBFE is able to view these records. The SLBFE portal also allows embassy staff to communicate messages to the respective foreign agent or company with regard to the job order. Once the documents are verified by the diplomatic mission, the LFEAs can accept and forward the same to the SLBFE for approval. Once the SLBFE has approved the job order, the recruitment agent can commence the recruitment process.

LFEAs undertake the registration of migrant workers who they have recruited, while there is a self-registration process for those migrant workers who have found jobs independently.

Key advantages of the SLBFE portal include:

Integrated coordination system. Currently, the SLBFE website allows SLBFE offices in Sri Lanka to digitally communicate with its overseas branch offices (the employment and welfare sections of diplomatic missions and posts abroad). In addition to being able to access information pertaining to recruitment and deployment processes, officers of the SLBFE and the diplomatic missions are able to upload and retrieve data and/or documents related to other processes such as welfare activities, and the SLBFE welfare center. While external users and the diplomatic missions can access the IT system through the SLBFE website, SLBFE officials are able to access the IT system through the SLBFE's intranet within their headquarters and through dedicated telecommunication connectivity for the branch offices. In order to ensure the transparency of the SLBFE's e-services, access to the SLBFE's IT system has been given to the Internal Audit Division of the SLBFE and National Audit Office (former Auditor General's Department) for monitoring and auditing purposes.

Both the SLBFE and the Vocational Training Authority of Sri Lanka conduct predeparture trainings for migrant workers[10] who need to complete these trainings as part of their emigration approval. While the SLBFE conducts the predeparture trainings for migrant workers emigrating for domestic work and for those selected for the government-to-government recruitment programs, the Vocational Training Authority provides training in technical skills (such as masonry and electrician skills) for migrant workers departing to work in those fields. Upon completion of the training, the trainees receive a national vocational qualification certificate. Details of those who are enrolled in the Vocational Training Authority training programs are uploaded to the SLBFE website so that SLBFE officials can review the information and certificates prior to granting departure approval.

Fully online system with streamlined administrative processes. The SLBFE website allows foreign employers (and their representative agents) and LFEAs to create their profiles online. In addition to finding information on the SLBFE's services, rules, and regulations, website users can find details of valid LFEAs and the foreign vacancies received by them (and approved by the SLBFE); the approved vacancy advertisements are accessible through the portal. LFEAs have to register all the migrant workers they have selected for recruitment with the SLBFE via the website; SLBFE officials can view the data and documents forwarded to them by the LFEAs and grant approval through the IT system.

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[10] Predeparture training is compulsory for all new migrant workers such as those emigrating for domestic work and those emigrating under the memorandums of understanding with Japan, Israel, and the Republic of Korea.

Migrant workers who are reemployed by their previous employers, or those who have received foreign employment opportunities through their individual efforts, can register and submit their documents directly through the SLBFE's website.

Potential migrant workers can create their profiles in the SLBFE's online job bank; their profiles can be viewed and selected by the LFEAs to fill the vacancies received from their foreign counterparts. The internal IT platform of the SLBFE website (e-server) facilitates the officials of the SLBFE and the missions to view real-time performance reports that could be used for monitoring, assessing, and controlling purposes. The Internal Audit Division and National Audit Office are able to access the SLBFE's IT system to view information with regard to LFEAs, recruitment and migrant worker registration processes, and the complaint management system.

Support to workers. All Sri Lankan migrant workers have to register with the SLBFE; this can be done online via the web portal or in person by visiting the head office. Migrant workers in all stages of their migration journey (predeparture, in service, and upon return) are able to obtain basic information and use digital services through the official website. The website facilitates migrant workers' access to verified job advertisements and special announcements to job seekers, especially those who wish to secure foreign jobs through the government-to-government recruitment programs undertaken by the SLBFE. The website also publishes announcements on programs, such as insurance and pension schemes, low-interest loans, scholarship entitlements for migrant workers' children, etc.

Improved accountability of employers and foreign recruiters. The SLBFE requires that foreign recruitment agencies and employers create their profiles and submit job orders to the relevant Sri Lanka diplomatic missions and posts. The documents can be submitted online, and the officials of the employment and welfare sections of diplomatic missions can review and send the attested documents to SLBFE officials and LFEAs back in Sri Lanka. Once the SLBFE has approved the job order, the recruitment agent can commence the recruitment process. Details of approved job orders are visible to all relevant parties. Based on the information of the job orders, the LFEAs can prepare a vacancy advertisement, which, once approved by the SLBFE, can be uploaded to the SLBFE website.

Grievance handling. The SLBFE website provides facilities for migrant workers who are abroad to lodge online complaints related to workplace issues and other problems they encounter. If a migrant worker is unable to lodge an online complaint, any other party acting on the worker's behalf is also able to lodge a complaint. In relation to an order given by a SLBFE officer in accordance with section 44(2) of the act, or when the relevant LFEA has not taken reasonably possible actions as directed by the SLBFE, the SLBFE may take administrative actions such as the temporary suspension of approvals until the completion of the relevant investigation or may take legal action.

An online web portal and an Android mobile application (SLBFE e-Connect) are in place to provide this grievance handling facility to migrant workers. Users can receive updates on their complaints through SMS, the mobile application, or the web portal. The SLBFE's conciliation officers can communicate relevant messages to the diplomatic missions, LFEAs and SLBFE officers, and the complainants. They can also upload data and documents through the 24-hour complaint management system. Pending complaints are linked with the LFEAs' license renewal process as a key document. If LFEAs have not resolved complaints or not supported the settling of complaints, their license is not renewed by the SLBFE. In 2020, the SLBFE received 5,130 complaints and the Sri Lankan diplomatic missions received 624 through the complaint management system; 3,460 cases were resolved (SLBFE 2020). Family members of migrant workers as well as general members of the public can make complaints and seek assistance on behalf of migrant workers who are in distress abroad.

Key users of SLBFE online services

Table 3.4 illustrates how different users of the SLBFE portal use the platform.

Table 3.4: Uses of the SLBFE Portal by User Type

Users	Purpose of Use
General public	Obtain various information related to the field of foreign employment
	Make complaints, suggestions, or requests related to foreign employment
Job seekers/aspirant migrant workers	Obtain information on availability of job opportunities, training facilities for enrollment, educational, vocational, and professional qualifications, and other requirements to apply for available jobs
	View the status of their job application
	Select recruitment agents and assess their credibility
	Access benefits given under the insurance scheme, the WWF of the SLBFE
Migrant workers/families of migrant workers/ returned workers	Access benefits given under the insurance scheme and contributory pension scheme, the WWF of the SLBFE
	Find information on other welfare schemes available for left behind family members
	Seek information about family members in employment abroad
	Lodge complaints and make inquiries concerning issues related to migrant workers
	File requests to repatriate family members
	Obtain information on reintegration programs for returnees
Licensed foreign employment agents	Find information on recruitment-related matters
	Obtain circulars issued by the SLBFE to the LFEAs
	Submit documents related to job orders
	View job seekers' availability
	Obtain information related to recruitment licenses
Foreign recruitment agents/sponsors/ employers in destination countries	View availability of local recruitment agents and job seekers and their information
	Submit documents related to employment
	Respond to complaints
Research institutions/ government institutions/ policy makers	Obtain annual statistics on the foreign employment sector, special programs for migrant workers and their families, and predeparture training systems
	Obtain data and information for further analyses, policy making purposes, etc.

LFEA = licensed foreign employment agent, SLBFE = Sri Lanka Bureau of Foreign Employment, WWF = Workers' Welfare Fund.

Source: Ratnayake (2023).

Compared to eMigrate, which focuses on emigration procedures and regulation of recruitment, the job advertisement and information provision components of the SLBFE portal appear to be more significant.

3.3 Review of Digital Platforms: eMigrate and SLBFE Portal

This section assesses the eMigrate platform and the SLBFE portal in five areas: transparency, accessibility, accountability, efficiency, and regulatory oversight.

3.3.1 Transparency

eMigrate. Emigrants, recruiters, and employers can check their application and registration status. Emigrants can verify whether their recruitment agency and employers are registered and have active registrations. Eliminating the need for in-person meetings during the approval process can reduce risks of graft. The built-in coordination within the system in relation to other agencies—for example automatically checking the authenticity of passports, issuance of insurance, and emigration clearance at immigration checkpoints—makes the system transparent and prevents the possibility of transfer of clearance between persons. The authenticity of the emigration clearance can be verified by the immigration authorities by scanning the passport before departure, making it very easy to catch fake clearances. This has eliminated the risk of fake emigration clearances (Bhatnagar 2017).

All government-related orders are on the system, so any legal changes that have been made can be checked. Live data regarding the number of clearances, including which countries migrant workers are going to, and from which POE office they have received clearance, is publicly available. All payments are online and digitally enabled. There is no cash transaction in eMigrate (Government of India 2017). eMigrate provides that the maximum cost that the worker can bear is 30,000 Indian rupees (plus taxes) for services rendered by their broker. However, there is no way to check the payments that are made to the agent during the migration process; studies have shown that there is much overpayment by candidates. The eMigrate system does ask recruitment agencies who will be responsible for costs incurred during the recruitment process, but in many instances, no information is supplied.

SLBFE portal. Details of all SLBFE-approved vacancy advertisements are listed by country, LFEA, and job category. To protect prospective migrant workers from exploitation and misinformation by unlicensed recruiters and intermediaries, and to enable them to make an informed selection of the LFEA, the website provides important information to the stakeholders and general public about LFEAs. The validity of a LFEA can be checked by entering the license number, entering the name (or partial name), and searching the LFEAs available in each district, or by looking through the entire database. The portal also lists the approved recruitment fees for each job category.

The SLBFE IT system, an information center, and a 24-hour complaint management system allow migrant workers and their family members, as well as prospective migrant workers and the general public, to file complaints and to obtain assistance. Complainants can check the progress of their complaints via the web system by entering their complaint number or passport number. The SLBFE also sends updates to the complainants through SMS, mobile application, or the web portal.

The National Audit Office performs audits in order to ensure regulatory oversight on the services and activities of the SLBFE. However, since there is no payment portal, it is difficult to assess the recruitment fees or any other additional charges that migrant workers have to pay.

3.3.2 Accessibility

eMigrate. Although the website is only available in English, it is integrated with the UMANG (Unified Mobile Application for New-Age Governance) mobile app of the Ministry of Electronics and Information Technology for access to central and state government services. The app supports 13 Indian languages and is available for Android, iOS, and Windows devices. Through this, migrant workers can easily access and track their emigration clearance. A 24-7 helpline connecting to the Pravasi Bharatiya Sahayata Kendra is also available in several Indian languages; information regarding the helpline is available on the eMigrate website. Not all sections of the portal are publicly accessible; restricted sections are accessible only to registered users (who also have varying levels of access). The government agencies

have authority to access the entire database and data on the website and to control several functions, including granting access to the different users. In terms of ease of use, there are videos to help with processes for the registered users. A technical support operator is available to users during office hours via phone.

Regarding ease of use, eMigrate applies to migrant workers with an ECR passport. Because they have not completed schooling, such passport holders may have limited digital literacy, which impedes their ability to navigate the site by themselves and to take full advantage of its provisions; many migrant workers rely on their recruitment agencies to complete emigration processes on their behalf. Only 3,119 of the total 373,434 migrants[11] who took emigration clearance in 2022 did so directly, i.e., without a recruiter.

In relation to accessing eMigrate data for research and further analysis, while data are available, they remain limited to the emigrants going through the eMigrate system. Thus, it has some limitations for policy making, as the data from eMigrate are not fully representative of all emigrating migrant workers from India. Integrating further data from the BOI and sharing returnees' data would be helpful.

SLBFE portal. The information and services on the website are also accessible through mobile devices. While the basic information and instructions are provided in English, Sinhalese, and Tamil languages, the data forms are mainly designed in English. Circulars and other services are offered to the LFEAs in English language only.

All the services and information available on the website are also accessible through social media in local languages. Prospective migrants are given instructions on how to register themselves with the bureau; they can also get in-person assistance from SLBFE officials and development officers at district offices, migrant worker resource centers, and divisional secretariats, to log into the website and assist them with their decision-making.

Complaints on the grievance mechanism can be made both directly by migrant workers as well as on their behalf, both through online services and via the phone. Complaints can be tracked, and the diplomatic missions have the ability to review complaints and provide additional information and documentation to support the speedy resolution of complaints.

3.3.3 Accountability

Government accountability

eMigrate. The integration of the various systems, and the auto-checks in the system, ensure that there are no fake passports or faked clearances, unregistered recruiters, or even fake employers now (provided that all employers, recruiters, and migrant workers with ECR passports use the eMigrate platform). Earlier concerns that clearance stickers could be obtained and that clearance could be given without the correct documents are eliminated through eMigrate. The number of migrants going through each POE office can be monitored. Government officers have authority to access the entire database and data on the website and control several functions, including granting access to the different users. However, it is unclear what the eMigrate policies and practices are in relation to privacy and data protection provisions, and the extent to which there is compliance with the law. No audits or evaluations are available to reference.

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[11] Information from the emigration flow reports (Government of India 2023).

SLBFE portal. The SLBFE portal allows the government to check and verify job orders and advertisements prior to their publication. Officers can also check the details of LFEAs and employers, reducing risks to migrant workers. The validity of licenses of LFEAs is automatically verified by the IT system when approvals are granted for job orders and vacancy advertisements and when a LFEA registers migrant workers with the SLBFE. In terms of who can access personal data, data on the website are collected in line with internationally recognized privacy policies, legal requirements, and ethical practices in relation to digital services and transactions. Data system protection is assured through high-level firewalls, security certificates, and system audits.

Employer accountability

eMigrate. To limit fraudulent employment practices, it is mandatory for employers to register their information on the portal. The credentials of the prospective foreign employers are verified by the Indian missions or diplomatic posts before registration of the foreign employer on eMigrate. Those employers who have complaints against them will be put on a prior approval category (PAC) list that functions like a blacklist. This is a noteworthy action in the recruitment process directed against foreign employers by a country of origin to protect workers. Despite initial resistance, the site has over 200,000 employers. As of 10 January 2023, there are 767 employers on the PAC list.

Since eMigrate has not been integrated with any destination country platform, contract substitution continues as a practice in reality. There is no means for the digital system to check if employers, despite having provided signed letters stating wages and other employment terms, are honoring these contracts, unless a complaint is filed against them by the migrant worker concerned. Curbing the duplicity of contracts was accepted by the government as a challenge that has not been addressed by eMigrate (Government of India 2020). The government had stated that for the eMigrate system to be holistic, it must be integrated with the Gulf Cooperation Council countries (Government of India 2020). However, while extensive discussions were held with officials from the United Arab Emirates and Saudi Arabia, the platforms were not integrated, and this remains an unfinished part of the system.

The eMigrate system also does not automatically reject a request from an employer on the PAC list, but it does alert the POE during the clearance process of the employer being on the PAC list. The discretion of the POE is applied in such instances; there have been times such employers have been granted clearance.[12] Also, it appears that foreign employers do not need to register if they are recruiting only one migrant worker. This could increase the vulnerability of some workers.

SLBFE portal. Employers and their representative recruitment agents in destination countries have to register with the Sri Lanka missions abroad and are required to submit their requests (job orders) to Sri Lankan embassies or missions. They are only allowed to proceed with recruiting Sri Lankan workers once the mission officials and the SLBFE have verified the details. Their registration status is valid only for 1 year and can be checked online by the SLBFE and mission officials, as well as any others through the SLBFE website. However, unlike in eMigrate, where all employers have to be registered with the concerned embassy regardless of whether they are working through a recruitment agent, this requirement applies only for direct recruitment. The LFEA or employer and sponsor should send employment contracts to the missions and the SLBFE for direct recruitment to examine the terms and conditions of employment according to the government rules and regulations of both sides.

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[12] Interviews with recruitment agencies and employers (Sharma 2023).

Recruiter accountability

eMigrate. All authorized recruiting agents are registered on the eMigrate portal. Their registration status can be checked online by anyone. Even the recruitment of workers not requiring clearance can be done only by a licensed agency registered in eMigrate. This, however, is not known to employers, so wider publicity of this fact would help employers to engage legitimate recruiters.

Every recruitment agency that has received emigration clearance for a migrant worker can be tracked through the system. It is also a fairly straightforward process to suspend the clearance of a recruitment agency if any complaints are made against them. If the registration is suspended due to a complaint or is not renewed for any reason, the eMigrate system will automatically reject clearance.

eMigrate initially allowed for the rating of recruiters by migrant workers, but following complaints from recruitment agencies on the alleged subjectivity of the exercise, the rating option was dropped. Instead, the list of blacklisted recruiters is available on the website; there are currently 2,086 brokers on the blacklist.

However, illegal fees and malpractices of recruitment agencies, especially charges taken by subagents, remain undetected by the system. Similarly, the system is unable to track or prevent those working abroad from using the tourist visa route.

SLBFE portal. All recruitment agencies have to be registered with the SLBFE to receive their license; only LFEAs can advertise and recruit workers for employment abroad. Job advertisements can only be for SLBFE-approved job orders, and all advertisements have to be approved by the bureau prior to being published. Foreign recruitment agents are required to register with a Sri Lankan diplomatic mission and have to enter into business agreements with the LFEAs and to submit such agreements, power of attorney, and demand letters to the Sri Lanka mission and the SLBFE. They can work with up to five LFEAs to recruit workers; the system automatically rejects more than this allocation.

3.3.4 Efficiency

eMigrate. Prior to eMigrate, the emigration clearance process was a paper-based process with approvals at multiple hierarchical levels. This led to numerous loopholes, and there was poor monitoring of the approval process. This situation allowed manipulation and corrupt practices at all levels, from issuance of false licenses to granting of fake clearances (Bhatnagar 2017). The clearance process has changed with the eMigrate system; clearance is also generally faster, and the process easier for users.

However, the eMigrate system does not address all emigrants from India going overseas to work. This is because it is only mandatory for ECR candidates to register themselves on eMigrate. The system currently does not link to the National Career Services portal, which provides information, counseling, and advice to job seekers. This arrangement may make the system less efficient, as job seekers do not receive comprehensive advice and support when making their labor migration decisions.

SLBFE portal. The SLBFE has attempted to improve the efficiency of its digital services through high-speed connectivity and real-time synchronization of database backup systems related to digital services. The time needed to verify and approve documents has been reduced. For example, under the previous manual system, employers would have to visit the Sri Lankan embassies personally and submit their documents for approval. The approved job orders would then be delivered by courier to the LFEAs in Sri Lanka. With the online system, employers can submit the job orders (and related documents) online, approval is done online by the SLBFE within 1 day, and the LFEAs can then access the approved job

orders almost immediately. Similarly, emigration clearance can also be obtained within a day if all the necessary documents are submitted. The provision of digital services has reduced the cost previously incurred in going to a physical service center, but the digital platform needs further improvement since the services have not been fully automated, and users still incur costs for some services. For example, since no online payment gateway is in place, migrant workers are unable to complete registration renewal with the SLBFE. The SLBFE has planned to implement an online gateway in order to address this issue.

Another shortcoming is some duplication in procedures. The originals of documents submitted online by the foreign recruitment agents or companies to the diplomatic missions must also be physically submitted to the SLBFE. The SLBFE must make legal and administrative arrangements to facilitate the submission of such documents through digital platforms in order to make the service processes more efficient. Further attention must be paid to evaluate and respond to users' feedback regarding the efficiency of the digital services in order to further improve the services.

3.3.5 Regulatory Oversight Including Alignment with International Standards

Table 3.5 compares the regulatory oversight mechanisms of the eMigrate platform and the SLBFE portal in relation to relevant international standards to promote fair recruitment.[13]

Table 3.5: Regulatory Oversight of eMigrate and the SLBFE Portal

Standards	eMigrate	SLBFE Portal
Competent authorities should take specific measures against abusive and fraudulent recruitment methods.	eMigrate is aligned with the Emigration Act and provides powers to the POE/PGE to monitor, review, and suspend recruitment agencies and foreign employers who have complaints against them. The growing number of foreign employers on the PAC list and the number of illegal agents being caught indicate that the system is efficient in reducing fraudulent recruitment. However, since eMigrate does not track the information of migrant workers departing for employment on ECNR passports, or on tourist or other visas, the system cannot guarantee success in eliminating recruitment malpractice entirely.	The transparency of information and services provided through SLBFE's digital portal is vetted through approval and audit processes. Surveillance systems are in place to prevent and track frauds that could be performed through the IT systems. The digital portal has made the process of recruitment and emigration more transparent, as it reduces the opportunities for manipulating documents. However, the online portal requires users to be digitally literate, and in many instances, workers use LFEAs as an intermediary.
No recruitment fees or related costs should be charged to, or otherwise borne by, workers or job seekers.	While the system provides oversight of employers and regulators, it has not necessarily reduced costs for workers, as subagents remain outside the purview of the system, and it has not been possible to capture payments made outside of the system. A fixed maximum amount is permissible under Indian law, but this is often breached.	The SLBFE's website publishes the free-of-charge recruitment undertaken by the LFEAs and also the maximum recruitment costs permitted to be charged by the LFEAs (if any). This service has helped job seekers to find foreign jobs that could be secured free of charge or at a minimum cost, resulting in a smaller number of complaints about overcharging of recruitment fees.

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[13] The international standards in Table 3.5 are an extract from ILO (2019a).

Table 3.5 *continued*

Standards	eMigrate	SLBFE Portal
		However, the Special Investigation Division of the SLBFE still receives a few such complaints on a regular basis with regard to LFEAs overcharging for recruitments or illegal recruiters cheating job seekers out of money.

Provision of information through the website and the 24-hour information center has not been sufficient in creating awareness among the potential migrant workers about free-of-charge job opportunities and maximum recruitment charges permitted by the SLBFE. Accordingly, the SLBFE should expand awareness to ensure migrant workers' access to correct and timely information. |
| Written contracts are provided sufficiently in advance of departure from the country of origin, measures are taken to prevent contract substitution. | The system has extended its reach to employers in destination countries and made efforts to ensure minimum wages for workers, but contract substitution has continued. Until the platform's integration with destination countries is completed, it will be challenging to secure wages and working conditions that are promised at origin. | Employers are required to submit their requests (job orders) to Sri Lankan embassies/missions, and job orders are only advertised once the SLBFE has verified the details.

There is no information on how the SLBFE monitors contract substitution once workers have left the country to go to the destination country. |
| The grievance system is provided free of cost and is easily accessible. | The grievance mechanism is free of charge and is accessible to non-ECR migrant workers as well. Complaints can be tracked, and complaints against recruitment agencies and employers raise alerts in the system against the recruitment agencies/ employers. | The SLBFE's online complaint platform and Android mobile application allows migrant workers to file their complaints and also to view communications from the SLBFE's conciliation officers. The services are free of charge. In addition to the online complaint system and mobile application, the contact details of the 24-7 information center as well as the contact details of all members of the SLBFE's senior management and branch networks are provided through the website so that complaints or grievances can be reported through other channels as well. |

ECR = Emigration Check Required, IT = information technology, LFEA = licensed foreign employment agency, PAC = prior approval category, PGE = Protector General of Emigrants, POE = Protector of Emigrants, SLBFE = Sri Lanka Bureau of Foreign Employment.

Source: Authors' compilation.

3.4 Impact of Digital Recruitment and Emigration for Migrant Workers

The success of digital platforms to make recruitment and emigration processes transparent and fair depends greatly on the ability of end users such as migrant workers to utilize these online platforms as per their intended objectives. This section reviews the impact that the eMigrate platform and the SLBFE portal have had in facilitating the recruitment and emigration processes for migrant workers.

3.4.1 Recruitment Costs

eMigrate provides for online payment methods, which makes payments related to emigration clearance transparent. The SLBFE portal currently lacks this facility. The SLBFE and eMigrate both provide details of the ceiling costs for services that can be charged to migrant workers. Going paperless and providing services that can be accessed anywhere at any time does certainly reduce time and travel costs; it also improves efficiency and transparency. However, many migrant workers may not be digitally literate, so the rules, guidelines, and information available on online portals in written text may not be accessible to them. The registration of migrant workers (Sri Lanka) and emigration clearance (India) is largely handled by recruitment agencies. Further, for most job placements, migrant workers rely on private recruitment agents, who may charge illegal fees and costs.

3.4.2 Protecting Migrant Workers from Fraudulent Recruitment

Both platforms seek to make recruitment fair and emigration processes transparent. Employers' and recruiters' details are verified to reduce fraudulent practices, and coordination with other line agencies has been streamlined in an effort to reduce duplication, time, and costs. Both systems offer free-to-use grievance mechanisms. On eMigrate, any complaint against a recruitment agency or an employer will raise red flags in the system and even temporarily halt recruitment. For the SLBFE, while there is no official provision in the SLBFE Act for the temporary suspension of licenses, administratively, if there are allegations of serious violations, officials are able to suspend licenses while an investigation is carried out. Amendments to the SLBFE Act have been proposed to allow for the temporary suspension of licenses.

All of these features depend on migrant workers' abilities to access the platforms (see "accessibility") and the extent to which recruiters and employers cannot subvert the system. For example, the procedures of the eMigrate platform have also prompted unscrupulous recruiters to find ways around the protection firewall—using fraudulent education certificates, using tourist visas, etc.—so that ECR passport holders do not have to register themselves on the platform. The Government of India has admitted that it is not possible to check or track those who go with an ECNR passport, on tourist visas, or irregularly, because they bypass the eMigrate system (Government of India 2017). Similar reports have emerged from Sri Lanka of migrant workers and recruiters circumventing the procedures in place by providing incorrect information and using tourist visas to leave the country (Economynext 2022).

Both countries impose restrictions on women seeking work overseas as migrant domestic workers. This itself may lead to the abovementioned infractions, compelling women to use irregular (and less safe) avenues.

3.4.3 Relevance of the Information Being Provided

As no independent evaluations are available on the effectiveness and relevance of these two digital platforms, it is difficult to measure the relevance of the information being provided. In India, it appears that many migrant workers do not use the system themselves but rely on a recruitment agent for the emigration clearance process. As such, migrant workers may not be aware of the information provided and, as ECR candidates have lower levels of education, they may not have the level of digital literacy required to use the system.

One of the improvements that can be made for the SLBFE portal is promptly updating the information being provided through the digital platforms when changes are made to relevant work processes or policies, rules, or regulations.

3.5 Risks and Limitations

Table 3.6 summarizes the risks and limitations of the two digital platforms under review.

Table 3.6: **Risks and Limitations of eMigrate and the SLBFE Portal**

Risks	Limitations
Illegal fees and malpractices of recruitment agencies remain undetected through the system	Lack of awareness about the platforms among workers
	Difficulty of monitoring and preventing the payment of illegal recruitment fees outside the system
Recruitment agency-centric system	Digital platforms are accessible mainly to users with literacy, especially in English, and to those with digital literacy
No means to monitor contract substitution at destination	System not integrated with destination countries
Fraudulent recruiters can subvert the system	For eMigrate, employers may appear to prefer ECNR candidates due to less scrutiny
Possibility for bribes/corruption at various points of the system, though much reduced, remains	Declining usage of eMigrate as it is limited to ECR candidates
Data theft/hacking and scamming risks mean that security of digital platforms needs to be enhanced	Grievance mechanisms can only be accessed by registered migrant workers; those in irregular situations may not be able to access these services
	Migrant workers also need to be aware of the availability of services
Digital platforms may give rise to another subset of intermediaries in the recruitment process, as many users may not be tech-savvy	

ECNR = Emigration Check Not Required, ECR = Emigration Check Required.

Source: Authors' compilation.

3.6 Lessons Learned and Some Areas for Improvement

The eMigrate and SLBFE platforms represent significant progress toward a more coordinated, transparent, accountable, and efficient recruitment and emigration process. The emphasis on only registered recruiters and employers being able to recruit migrant workers from these countries is a marked improvement to ensure that migrant workers are protected from fraudulent practices.

However, there are protection gaps that are being exploited. This section provides policy suggestions for narrowing these gaps.

3.6.1 Policy Framework Is Key to a Robust Technology Platform

Digitalization can only be one of the tools of a larger strategy to make recruitment and emigration processes well governed in terms of decent work and protection of migrant workers. A technology platform responds to, and is determined by, a broader national policy framework on labor migration. India's legislative framework, the Emigration Act of 1983, is currently under review. The review process started in 2019 but was delayed due to the COVID-19 pandemic. A contemporary policy framework, in line with the current realities and international labor standards, will help a technology platform to become more robust. Reviewing and revising emigration policies in a timely manner is a critical first step toward having an efficient digital system.

Digital platforms for recruitment and emigration that require users to submit biometric data and other sensitive and confidential information also require a strong adherence to privacy and internet laws (IOM 2020). Such compliance needs to be monitored. Policies surrounding data protection, its usage, confidentiality, and storage should be clearly regulated and articulated and should be visible on the platforms' home page. There is a need to clearly regulate the collection, storage, and use of migrant workers' personal and biometric data. This is particularly important when private companies are engaged to develop and maintain government digital platforms for migration management (ILO 2019b).

Communicating with the public, especially with migrant workers, about the purpose of the data being collected, and informing them about how their data will (and will not) be used, can build trust of the platform in the wider population (Napier-Moore and Olsen 2021). Improved trust and knowledge can encourage the use of government-regulated platforms, especially among population groups who have low trust of government institutions.

3.6.2 Linking of Systems with Destination Countries Will Reduce Malpractice

Collaborating with destination countries to design a platform that integrates coordination mechanisms between countries of origin and destination can help provide a continuum of supportive mechanisms for migrant workers through the recruitment process, prevent contract substitution, and increase accountability. Such an integrated platform can also provide a means to connect employers and workers directly, reducing the dependence on intermediaries and potentially minimizing disputes between migrants and their employers. Though this was attempted during the implementation of the eMigrate system, integration was not achieved, reflecting challenges with respect to the political economy in the destination country, and differing perspectives between the country of origin and destination.

With respect to integration and coordination, in the context of the Republic of Korea's Employment Permit System, in which Sri Lanka participates, there is evidence of recruitment malpractices and costs to workers being significantly reduced as a result of direct recruitment by employers from a short list of qualifying and screened workers (Baruah and Wickramasekara 2017). The screening is largely managed by the Republic of Korea's Human Resources Development Service offices in countries of origin, hence denoting a subsidization of recruitment costs by the destination country.[14]

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[14] As per good practice, recruitment costs should be paid or subsidized by the employer. Given the employment and growth dimensions of labor migration, governments can increase their support for job centers, job portals, and public placement agencies.

3.6.3 Migrant-Accessible Systems Lead to Better Migration Outcomes

Studies on the digitalization of labor migration processes have classified migrant-supportive technology into six categories: (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 skill 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 (ADBI, OECD, and ILO 2021). Both eMigrate and the SLBFE portal aim to integrate some of these functions in their platforms: information gathering and dissemination, recruitment, labor protection and compliance, and access to welfare services. Currently, it is only the SLBFE portal that seeks to provide support to migrant workers in all stages of their journey. Indian migrant workers, on the other hand, must use the other digital platforms provided by the Government of India. This requires migrant workers to have a good understanding and knowledge of what the channels are and how to use them.

Although the eMigrate system was designed with the idea that migrants would use it directly for applying for their own emigration clearance, this goal has not proved feasible or accessible for many migrant workers. As past surveys show, many migrant workers face challenges to access and operate digital services and platforms due to low levels of digital literacy (Napier-Moore and Olsen 2021). Intuitive design that can allow for "self-learning," and guidance to help workers access the system in regional languages using chat bots, for example, will help in usage. Face recognition and passport-centered login details may make it easier for migrant workers to register and log in.

For those who do not need mandatory clearance (like the ECNR category in India), there is no incentive to use the system. The job bank on the SLBFE portal attracts users, who are also able to learn about other features of the system. If a direct interface or a job matching process between workers and employers could be included, it would bring workers to the platform and reduce dependence on intermediaries, as well as reduce costs for the workers. The SLBFE has planned to upgrade the IT system to implement automated job matching and referral processes. However, successful use of the online system would require efforts to ensure public awareness of the SLBFE portal and its functions, and training and helplines (and other mechanisms) would be needed to support migrants through the process of registering on the portal.

Many migrant workers seek information and advice on migration-related topics from family and personal connections, and migrant workers widely use social media platforms (such as Facebook, WhatsApp, WeChat, and TikTok) for peer-to-peer connection. Digital recruitment and emigration processes should tap into these platforms where migrant workers have already built trusted networks (ILO 2019b, 2021b). The SLBFE has already indicated that it will be improving the social communications aspect of its digital portal in the next update of the system.

3.6.4 Digital Platforms Must Consider the Digital Divide

The digital divide within and between countries has a direct impact on the successful use of digital recruitment and emigration. The "digital divide" refers to the "gap between individuals, households, and geographic areas across different socio-economic levels with respect to their opportunities to access ICTs and their use of the Internet for a variety of activities. These gaps in access, usage, and skills related to digital technologies reflect and amplify pre-existing social, economic, and culture inequalities" (ILO 2021b: 17). The ability for people to utilize digital platforms is determined in a large part by the quality of the technological infrastructure available to them. Inadequate infrastructure hampers equal access to technology, which is why internet usage is consistently

higher in urban areas where more investments have been made to improve digital networks. Digital recruitment and emigration platforms must have functions and features that are accessible to all users, including those in remote and rural locations. Digital channels can further be supplemented by establishing one-stop service centers or migrant information centers at the district level so that migrant workers can also seek in-person support. This is currently the case in Sri Lanka because not all aspects of the digital platform are online (for example, payments for services on the SLBFE portal can only be made in person).

Education, income, and gender are also strong determinants of who will access and best utilize online platforms. Women's internet use falls behind that of men in both urban and rural areas (LIRNEasia 2021a, 2021b; Perera 2016). Participatory design can ensure that all users (especially migrant workers) can access and use the platform, and budget planning should provide for this (Napier-Moore and Olsen 2021). Platform design should also consider the needs and barriers that migrant workers of different genders experience, to ensure that the digital channels are migrant and gender inclusive.

Digital platforms that are intended for migrant workers' use need to consider the digital literacy of their stakeholders. Portals should be made simple, attractive, user-friendly, and accessible for migrants in their local language, with information available in short visual or audio formats, not restricted to written formats. For users who cannot use the digital system, the platform could accept a voice recording, and their call should be returned as a follow-up mechanism. Accepting voice messages for grievances, for example, could help migrants to use the system directly.

3.6.5 Integration of Skills Could Augment the Protection of All Migrants

Skill certifications are another aspect of migration that can support direct recruitment. Mutual recognition of skills and qualifications can promote transparency and efficiency and can ensure the protection of both workers and employers (ILO 2017). Ensuring that workers have the appropriate skills that are certified or recognized by a process that is agreed upon by both sides will greatly facilitate migration outcomes.

In India, the ASEEM skilling database may be integrated with eMigrate in a similar manner to which insurance provision is integrated, and the certificates could be uploaded automatically. This will prevent fraud and will likely increase the possibility that the right people are being hired for the right jobs. In Sri Lanka, skills development is under the Ministry of Education, Vocational Education section. The Vocational Training Authority issues national vocational qualification certificates to those trainees who need the certificates to obtain departure approval from the SLBFE. All information on the trainees enrolled in these predeparture training and programs (such as the date of enrollment of the trainee, date of completion of training, and date of obtaining the national vocational qualification certificate) is uploaded to the SLBFE portal so that the SLBFE can examine workers' eligibility for departure approval for foreign employment. SLBFE officials can view the details and check whether the applicant has completed mandatory predeparture training prior to granting emigration approval.

3.6.6 Strengthen Monitoring through Regular Review and Checks and Balances

Any system that is to stay relevant will need to have a monitoring mechanism at multiple levels. The SLBFE's IT system has been made accessible to the Internal Audit Division of the SLBFE and National Audit Office (former Auditor General's Department) for monitoring and auditing purposes. Based on the available information, the budget for eMigrate also includes auditing costs. Until now, there are no publicly available audit or evaluation reports that can be used to analyze the work of these digital platforms. Analytics can enhance the usefulness of the system for decision-making.

Auto-blocks and auto-checking of documents, as introduced in the eMigrate system, are effective and reduce human error. There could also be a check on working hours or time off, as there is for minimum referral wages, to prevent exploitation and bring further accountability of employers into the system. A response timeline with automatic escalation, as in MADAD, could be developed for the timely clearances of emigration and other functions of eMigrate.

The growth of online services in overseas employment administration warrants continued monitoring and review. It is important to evaluate such services quantitatively and qualitatively through surveys and end user interviews including migrants themselves to ensure that digital and online services achieve the intended objective and operate in a way that complements face-to-face services where needed.

3.6.7 Increase Feedback through Structured Stakeholder Dialogues

Regular stakeholder dialogues can improve the usability of digital platforms. Regular meetings were held between recruitment agencies and government officials for some years in India, but this was discontinued. Authorities could design means to actively take feedback from migrant workers, recruiters, and trade unions and civil society organizations who work with migrants on a regular basis. Such engagement could inform policy makers about loopholes in the system as well as changing trends and any need for adjusting the system.

3.6.8 Not All Aspects of Recruitment and the Emigration Process Are Suited for Digitalization

Finally, not all aspects of recruitment and emigration clearance may be suited for digitalization. As noted in interviews with Sri Lankan migrant workers, predeparture trainings were conducted online during COVID-19, but since then, many migrant workers have welcomed the resumption of in-person training because they are able to get hands-on experience (for example, with the operation of household appliances for domestic work). Similarly, support services to use complaint mechanisms (for example, legal advice) may be provided more effectively in person. For example, in both countries of origin and destination, migrant worker resource centers can serve as migrant assistance focal points in the community, providing migrant workers with information and services, including counseling and legal assistance to file complaints against recruitment agencies and employers; the migrant worker resource centers can act as a bridge providing migrants with access to local authorities and other service providers.

3.7 Conclusion

The role of technology in facilitating the recruitment and emigration of migrant workers has become a well-established process in countries with long-standing labor migration programs like India and Sri Lanka. Recruitment-related functions and services in eMigrate (India) focus on the regulation of recruitment, including approval of demand, and the streamlining of administrative processes. As a protective measure, ECR passport holders—Indian nationals who have not completed secondary education and are deemed to be more at risk of exploitation—have to obtain emigration clearance. This process includes examination of the employer, the job offer, and the employment contract, as well as obtaining insurance. The process of obtaining emigration clearance is fully integrated in eMigrate. Unlike the SLBFE portal in Sri Lanka, eMigrate in India does not provide services or information with respect to employment opportunities and job seekers (i.e., job placement and matching). Key features of the SLBFE portal in Sri Lanka include labor market information; placement and regulation of

recruitment; job order (demand) attestation and approval; registration of migrant workers, recruitment agencies, and employers; and a complaint management system.

Both systems have led to greater transparency and accountability for the government, employers (in particular in the case of eMigrate), and recruitment agencies. eMigrate represents an integrated online system across government agencies in India. It is a fully online system with streamlined administrative processes. The SLBFE portal also features a good degree of coordination and integration between the Sri Lankan missions abroad and the capital and brings together other stakeholders (recruitment agencies and migrant workers). It is, however, not yet a fully online system.

Limitations of both platforms include low direct use by migrant workers (who rely on intermediaries such as recruitment agents). Digital platforms must account for the digital divide. Participatory design can ensure that all users (especially migrant workers) can access and use the platform. eMigrate enables online payment methods, which makes the payments related to emigration clearance transparent. The SLBFE portal currently lacks this facility. For most job placements, migrant workers rely on private recruitment agents who may charge illegal fees and costs. While introduction of the online processes would impact migration costs for the worker by making certain processes transparent (for example, emigration clearance in India) and providing for direct recruitment (as in the case of Sri Lanka), measures to address high recruitment costs paid by workers would need additional and broader measures. Finally, limitations such as the continuation of employment contract substitution, despite checks in the system prior to emigration and departure, point to the importance of bilateral and international cooperation, including potentially the integration of some aspects of the online system with countries of destination.

References

ADB. 2022. COVID-19 and the Deployment of Labor Migrants from Asia: Lessons Learned and Ways Forward. Manila: Asian Development Bank. https://www.adb.org/publications/covid19 -deployment-labor-migrants-asia

ADBI, OECD, and ILO. 2021. *Labor Migration in Asia: Impacts of the COVID-19 Crisis and the Post-Pandemic Future*. Tokyo: Asian Development Bank Institute; Paris: Organisation for Economic Co-operation and Development; Bangkok: International Labour Organization, Regional Office for Asia and the Pacific. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok /documents/publication/wcms_784823.pdf

Baruah, N., and P. Wickramasekara. 2017. Fair Recruitment for Low-Skilled Migrant Workers: Issues and Challenges. In *Safeguarding the Rights of Asian Migrant Workers from Home to Workplace*. Tokyo: Asian Development Bank Institute; Paris: Organisation for Economic Co-operation and Development; Bangkok: International Labour Organization, Regional Office for Asia and the Pacific.

Bhatnagar, H. 2017. Transformation of Emigration Services in India through E-Governance: Enabling Safe Migration and Efficient Services for Indian Citizens and Diaspora. https://www.researchgate .net/publication/314238255

Central Bank of Sri Lanka. 2022. Quarterly Bulletin of Workers' Remittances and Labour Migration. Quarter 4. https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/statistics/workers _remitttances_and_labour_migration_bulletin_2022_q4_e.pdf

Chauhan, R. 2009. National E-Governance Plan in India. United Nations University International Institute for Software Technology. May. https://i.unu.edu/media/unu.edu/publication/1377 /report414.pdf

Economynext. 2022. Sri Lankan Migrant Workers Urged Register to Reduce Trafficking Risks. Economynext. 22 November. https://economynext.com/sri-lankans-migrant-workers-urged -register-to-reduce-trafficking-risks-103601/

Government of India. 2013. Ministry of Overseas Indian Affairs: Demand for Grants (2013–2014). Lok Sabha Secretariat, Nineteenth Report of Standing Committee of External Affairs (2012–2013).

———. 2017. Transcript of Media Briefing on E-Migrate. 19 January. Ministry of External Affairs. https://mea.gov.in/media-briefings.htm?dtl/27958

———. 2018. Directorate General of Shipping. Launch of E-Migrate System for Seafarers. DGS Crew Branch Circular No. 2 of 2018. https://www.dgshipping.gov.in/writereaddata/ShippingNotices /201807260458564017812dgs_cre_br_02of2018.pdf

———. 2020. Fourth Report, Committee On External Affairs (2019–20). Seventeenth Lok Sabha, Ministry Of External Affairs.

———. 2022a. Notice Inviting E-Tender RFP. OE&PG Division, Ministry of External Affairs. https://eprocure.gov.in

———. 2022b. Rajya Sabha Secretariat, Parliamentary Debates. 257(4), Official Report Part II. 21 July.

———. 2022c. eMigrate Application System. Various data. www.emigrate.gov.in

———. 2023. eMigrate Application System. Various data. www.emigrate.gov.in

Government of Sri Lanka. 2008. National Policy for Labour Migration, 2008. Colombo.

⸻. 2022. Proposed National Policy on Migration for Employment and National Action Plan 2023–2027.

ILO. 2017. Using Technology to Link Skills with Jobs and Migration, Assessment of the Pilot Project and Presentation of a Working Model. January. Geneva: International Labour Organization.

⸻. 2019a. General Principles and Operational Guidelines for Fair Recruitment and Definition of Recruitment Fees and Related Costs. Geneva: International Labour Organization.

⸻. 2019b. Digitalization to Promote Decent Work for Migrant Workers in ASEAN. Thematic background paper for the 11th ASEAN Forum on Migrant Labour (AFML). Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/publication/wcms_713546.pdf

⸻. 2021a. ILO Global Estimates on International Migrant Workers: Results and Methodology. Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_808935.pdf

⸻. 2021b. Use of Digital Technology in the Recruitment of Migrant Workers. Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_831814.pdf

⸻. 2022. Measuring SDG Indicator 10.7.1 on Recruitment Costs of Vietnamese Workers Overseas. Geneva: International Labour Organization.

ILO and Bangladesh Bureau of Statistics. 2020. *Cost of Migration Survey: Bangladesh 2020*. Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-dhaka/documents/publication/wcms_766198.pdf

ILO and IOM. 2020. *Promoting Fair and Ethical Recruitment in a Digital World: Lessons and Policy Options*. Geneva: International Labour Organization and International Organization for Migration. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---migrant/documents/publication/wcms_791270.pdf

IOM. 2020. GFMD 2020 UAE: Thematic Note on Theme 3: Leveraging Technology to Empower Migrants. Geneva: International Organization for Migration.

LIRNEasia. 2021a. Digital Sri Lanka during COVID-19 Lockdowns. Colombo, Sri Lanka: LIRNEasia. https://lirneasia.net/wp-content/uploads/2021/12/COVID-LK_dissemination_v7.8.2.pdf

⸻. 2021b. Access to Services during COVID-19 in "Digital India." Colombo, Sri Lanka: LIRNEasia. https://lirneasia.net/2021/11/access-to-services-during-covid-19-in-digital-india

Napier-Moore, R., and A. Olsen. 2021. Leveraging Technology to Enhance Compliant Labour Selection Practices and Improve Job-Matching. Bangkok: International Labour Organization, Regional Office for Asia and the Pacific. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/briefingnote/wcms_811842.pdf

Perera, A. 2016. ICT for Development: Why Sri Lanka Needs to Address the Gender Digital Divide. Colombo: Institute of Policy Studies of Sri Lanka.

Ratha, D., E. J. Kim, S. Plaza, E. J. Riordan, V. Chandra, and W. Shaw. 2022. Migration and Development Brief 37: Remittances Brave Global Headwinds. Special Focus: Climate Migration. Washington, DC: KNOMAD-World Bank. https://www.knomad.org/publication/migration-and-development-brief-37 (accessed 20 January 2023).

Ratnayake, P. 2023. Country Note on the Digitalization of Recruitment and Immigration Processes for Migrant Workers in Sri Lanka. International Labour Organization, Regional Office for Asia and the Pacific. Unpublished.

Sharma, S. 2023. Country Paper on Digitalization and Emigration Process for Migrant Workers in India. International Labour Organization, Regional Office for Asia and the Pacific. Unpublished.

SLBFE. 2020. Analysis of Complaints. Battaramulla: Sri Lanka Bureau of Foreign Employment. http://www.slbfe.lk/file.php?FID=573

———. 2021. Corporate Strategic Plan (2022–2026). Battaramulla: Sri Lanka Bureau of Foreign Employment. http://www.slbfe.lk/file.php?FID=672

Wadhawan, N. 2018. India Labour Migration Report 2018. Geneva: International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi /documents/publication/wcms_631532.pdf

World Bank. 2022. Mobile Cellular Subscriptions (Per 100 People) - South Asia. https://data.worldbank .org/indicator/IT.CEL.SETS.P2?locations=8S

ANNEX 1

ECONOMY-SPECIFIC NOTES

BANGLADESH

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	150.2	1,018	6.5	Employment / population ratio (15+, total)	55.3
2021	169.4	1,684	6.9	Unemployment (% of total labor force)	5.1

Immigrant population in Bangladesh

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	988	0.77	46	17.8	68.4		
2015	1,422	0.91	47	15.3	65.2		
2020	2,115	1.28	48	13.4	58.0		

Stock of foreign workers by sector	Total							
Number of foreign workers ('000)								85.5
% of total employment								

Stock of international students ('000)	2009		2014	2015	2016	2017	2018	2019	2020
	1.6		2.1	2.1	2.3	2.4	2.2	2.0	2.0

Inflows of foreign workers ('000)	2013	2014	2015	2016	2017	2018	2019	2020	2021
					4.7	4.3	5.9	7.8	4.3

Emigration from Bangladesh to OECD countries

	2000				2015/16		
Stock of persons born in Bangladesh living in OECD countries	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	161.9	123.6	285.5		390.4	295.9	686.3
Recent emigrants 15+ ('000)	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	11.0	10.2
25–64 (% of population 15+)	78.2	73.3	76.1		85.5	84.0	84.9
Total emigration rates (%)	0.4	0.3	0.3		0.7	0.5	0.6
Emigration rates of the high-educated (%)	2.7	2.0	2.4		4.0	6.5	4.8

Legal migration flows to OECD (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	41.7	43.5	48.7	50.9	51.0	51.7	54.1	53.5	34.1
United States	14.6	12.0	14.4	13.4	18.4	14.6	15.6	15.0	9.1
Italy	10.1	10.5	12.7	12.4	10.7	14.6	13.4	11.8	7.8
France	0.8	1.2	1.8	2.0	2.5	2.5	2.6	2.7	2.3
Portugal	0.3	0.5	0.4	0.7	0.4	0.7	2.0	2.4	2.2
Germany	1.5	2.4	2.0	4.3	1.9	1.9	2.4	3.3	1.9

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		17.7	20.6	21.4	23.1	24.6	27.2	31.3	35.3
United States		3.8	4.8	5.4	6.5	7.0	7.4	8.1	8.7
Australia		3.6	3.9	4.4	4.7	5.0	5.8	6.2	5.6
Canada		1.6	1.8	1.9	2.0	2.2	2.3	3.7	5.1

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total									
Saudi Arabia									
United Arab Emirates									
Malaysia									
Kuwait									
Oman									

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	426.0	556.0	758.0	1 009.0	734.0	700.0	218.0	617.0	1 136.0
Saudi Arabia	10.7	58.3	143.9	551.3	257.3	399.0	161.7	457.2	612.4
Oman	105.7	129.9	188.2	89.7	72.5	72.7	21.1	55.0	179.6
United Arab Emirates	24.2	25.3	8.1	4.1	3.2	3.3	1.1	29.2	101.8
Singapore	54.8	55.5	54.7	40.4	41.4	49.8	10.1	27.9	64.4
Malaysia	5.1	30.5	40.1	99.8	175.9	0.5	0.1	0.0	50.1

Net migration rate (per thousand)	1985–1990	1990–1995	1995–2000	2000–2005	2005–2010	2010–2015	2015–2020	2020–2025	2025–2030
	−0.45	−1.49	−1.19	−2.24	−4.54	−3.04	−2.30	−2.07	−1.88

Remittance inflows (current $ million)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	14,988	15,296	13,574	13,502	15,566	18,364	21,752	22,203	21,000

CAMBODIA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	14.6	938	7.1	Employment / population ratio (15+, total)	75.6
2021	16.6	1,430	3.0	Unemployment (% of total labor force)	0.3

Immigrant population in Cambodia

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	146	1.20	51	22.5	32.8		
2015	74	0.48	46	17.3	71.8		
2020	79	0.47	46	12.3	74.8		

Stock of foreign workers by sector, 2015	Total	Agriculture, forestry, and fishing	Manufacturing	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles	Accommodation and food service	Administrative and support service activities	Other	
Number of foreign workers ('000)	49.2	18.7	2.6	5.5	12.5	2.4	1.2	6.2	
% of total employment	0.1								

Stock of international students ('000)	2006	2013	2014	2015	2016	2017	2018	2019	2020	2021
	0.1									0.5
Inflows of foreign workers ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018

Emigration from Cambodia to OECD countries

Stock of persons born in Cambodia living in OECD countries	2000				2015/16			
	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000)			239.1		130.1	162.2	292.3	
Recent emigrants 15+ ('000)			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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	15.0	16.5	16.4	17.1	19.7	20.1	18.9	20.8	10.2
Japan	1.1	1.3	2.3	3.7	4.2	4.8	5.0	6.3	3.7
Korea, Republic of	9.5	10.5	9.5	9.6	10.2	9.5	8.7	9.9	3.5
United States	2.4	2.5	2.4	1.8	3.0	3.9	3.1	2.6	1.5
Australia	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.6	0.6
France	0.4	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.3
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		2.3	2.7	2.9	3.1	3.5	3.8	4.5	4.8
Australia		0.6	0.7	0.8	0.9	1.1	1.3	1.7	1.9
United States		0.4	0.4	0.5	0.6	0.5	0.7	0.7	0.8
Japan		0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total						1,165.2			1,301.6
Thailand						1,134.2			1,220.2
Korea, Republic of						..			45.9
Malaysia						30.1			23.0
Japan						..			11.5
Singapore						0.9			0.8

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	35.0	23.0	25.0	41.0	86.0	96.0	105.0	68.0	23.0
Thailand	26.4	13.5	15.8	16.2	76.4	87.9	60.3	57.8	18.6
Japan	0.1	0.1	0.5	1.4	1.6	2.3	3.0	3.9	3.1
Korea, Republic of	8.1	8.8	7.7	7.1	7.4	6.0	4.9	5.9	0.9
Singapore	0.0	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.0
Malaysia	0.2	0.1	0.5	0.8	0.1	0.0	0.1	0.1	0.0

Net migration rate (per thousand)	1985–1990	1990–1995	1995–2000	2000–2005	2005–2010	2010–2015	2015–2020	2020–2025	2025–2030
	–1.87	8.34	6.11	–0.55	–4.29	–2.01	–1.86	–1.74	–1.64

Remittance inflows (current $ million)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	1,103	1,185	1,199	1,287	1,431	1,525	1,272	1,153	1,250

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HONG KONG, CHINA

KEY INDICATORS

		Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011		7.1	39,656	4.8	Employment / population ratio (15+, total)	56.3
2021		7.4	44,481	6.3	Unemployment (% of total labor force)	5.2

Immigrant population in Hong Kong, China

		Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
		Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000		2,669	40.40	54	7.2	63.2		
2015		2,841	39.54	61	7.0	63.1		
2020		2,962	39.52	63	7.7	61.6		

Stock of foreign workers by sector	Total
Number of foreign workers ('000)	
% of total employment	

Stock of international students ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	18.0	21.1	26.7	30.0	32.0	32.0	34.3	37.3	42.6	47.3	46.9

Inflows of foreign workers ('000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
	31.7	34.4	36.0	40.0	41.6	41.3	14.6	13.8	13.5

Emigration from Hong Kong, China to OECD countries

Stock of persons born in Hong Kong, China living in OECD countries	2000				2015/16		
	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	188.5	199.9	388.4		291.8	332.7	624.5
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	5.6	9.4	6.7	6.9	13.8	17.4	17.3	15.2	...
United Kingdom	0.0	3.0	0.0	0.0	5.0	8.0	8.0	8.0	...
Australia	0.9	1.2	1.3	1.4	1.7	1.8	1.9	1.7	1.3
Japan	0.9	0.9	1.1	1.3	1.6	2.3	2.2	2.3	1.1
Canada	0.7	0.8	0.6	0.6	1.2	1.3	1.5	1.5	1.0
Korea, Republic of	0.5	0.7	0.9	0.8	1.0	0.9	0.8	0.7	0.7

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		32.8	34.3	35.7	36.7	35.9	35.9	35.6	34.7
United Kingdom		12.9	14.7	16.2	16.7	16.6	16.3	16.3	16.3
Australia		9.2	9.1	8.8	9.3	9.2	9.6	9.7	8.8
United States		8.6	8.5	8.5	8.0	7.5	7.0	6.7	6.5

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total									

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	372	387	399	437	425	451	427	461	571

INDIA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	1,257.62	1,285.28	5.2	Employment / population ratio (15+, total)	44.8
2021	1,407.56	1,936.94	8.7	Unemployment (% of total labor force)	7.7

Immigrant population in India

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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	5,211	0.40	53	9.2	65.1		
2020	4,879	0.35	53	9.5	64.6		

Stock of foreign workers by sector	Total								
Number of foreign workers ('000)									
% of total employment									

Stock of international students ('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	28.3	34.4	39.0	42.0	44.8	46.7	46.1	47.4	49.3	48.0
Inflows of foreign workers ('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021

Emigration from India to OECD countries

Stock of persons born in India living in OECD countries	2000				2015/16		
	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	1,027.6	943.0	1,970.6		2,545.0	2,280.6	4,825.6
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	229.6	242.7	288.9	273.9	280.8	315.8	359.0	417.6	...
United Kingdom	36.0	30.0	46.0	36.0	35.0	50.0	62.3	92.0	...
United States	64.7	67.3	76.3	62.8	63.0	59.1	58.9	53.8	45.8
Canada	30.9	33.1	38.3	39.5	39.8	51.7	70.0	85.6	42.9
Australia	27.8	38.1	39.6	34.7	38.6	40.0	33.1	32.6	24.5
Germany	18.1	19.5	22.4	26.1	27.7	29.5	33.7	39.1	20.5

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	168.3	147.6	172.2	222.2	262.2	290.6	316.9	390.2	436.3
United States		74.8	82.2	112.7	135.7	142.6	135.9	133.3	128.6
Canada		13.6	15.7	16.3	19.9	32.6	34.8	74.3	95.0
Australia		16.2	25.6	36.9	46.3	52.0	73.3	93.3	84.5

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2013	2014	2016	2017	2018	2019	2020	2021	2022
Total			10,401.2	13,327.4	10,453.2	13,459.2		13,383.7	13,448.6
Saudi Arabia			3,050.0	3,253.9	2,812.4	2,592.2		2,592.2	2,592.2
United Arab Emirates			2,800.0	2,800.0	3,100.0	3,419.9		3,419.9	3,419.9
Kuwait			921.7	918.0	928.4	1,028.3		1,028.3	1,028.3
Oman			795.1	783.0	688.2	779.4		779.4	779.4
Qatar			600.0	697.0	691.5	745.8		691.5	745.8

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	805.0	781.0	521.0	391.0	340.0	368.0	94.0	133.0	373.0
Saudi Arabia	329.9	308.4	165.4	78.6	72.4	161.1	44.3	32.8	178.6
Kuwait	80.4	66.6	72.4	56.4	57.6	45.7	8.1	10.2	71.4
United Arab Emirates	224.0	225.7	163.7	150.0	112.1	76.1	17.9	10.8	33.2
Oman	51.3	85.1	63.2	53.3	36.0	28.4	7.2	19.5	32.0
Qatar	75.9	59.4	30.6	24.8	34.5	31.8	8.9	49.6	30.9

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	70,389	68,910	62,744	68,967	78,790	83,332	83,149	89,375	100,000

INDONESIA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	247.1	2,826	6.2	Employment / population ratio (15+, total)	63.3
2021	273.8	3,893	3.7	Unemployment (% of total labor force)	3.8

Immigrant population in Indonesia

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	292	0.14	48	21.1	47.0	33.0	46.0
2015	338	0.13	42	26.6	55.1		
2020	356	0.13	42	21.4	64.3		

Stock of foreign workers by sector, 2022	Total	Agriculture, forestry, and fishing	Industry	Services
Number of foreign workers ('000)	111.7	2.6	48.7	48.6
% of total employment	0.1			

Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	6.4	...	7.2	...	...	7.3	7.7	7.8	7.7		

Inflows of foreign workers ('000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
	73.6	77.1	80.4	86.0	95.3	109.5	93.8	88.3	111.7

Emigration from Indonesia to OECD countries

Stock of persons born in Indonesia living in OECD countries	2000				2015/16		
	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	162.3	177.3	339.6		159.8	205.2	365.0
Recent emigrants 15+ ('000)	22.0	26.4	48.4		15.0	14.8	14.9
15–24 (% of population 15+)	13.7	11.3	12.4		14.7	8.9	11.4
25–64 (% of population 15+)	65.4	61.8	63.5		57.4	62.2	60.1
Total emigration rates (%)	0.2	0.2	0.2		0.2	0.2	0.2
Emigration rates of the high-educated (%)	3.2	4.2	3.6		0.9	1.1	1.0

Legal migration flows to OECD (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	30.6	36.4	35.4	34.8	38.9	39.2	48.0	53.8	26.0
Japan	9.3	9.6	11.8	14.3	16.8	19.6	23.2	28.8	13.7
Korea, Republic of	8.3	11.8	10.5	8.5	9.0	6.9	10.7	9.8	3.4
Germany	2.2	2.8	2.5	2.5	2.7	2.6	3.0	3.0	1.9
Türkiye	0.0	0.0	0.0	0.0	1.2	1.6	2.1	2.7	..
Australia	2.5	2.5	2.4	2.1	2.1	1.9	1.8	1.4	1.6

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	25.4	27.8	29.3	32.2	34.4	36.2	37.3	39.8	40.7
Australia		9.5	9.5	10.2	10.7	11.0	12.2	13.9	12.9
United States		8.2	8.6	8.9	9.3	8.8	8.5	8.0	8.0
Japan		2.2	2.4	2.5	2.9	3.6	4.2	4.7	5.1

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total			3,256.0	4,300.0	4,900.0				
Saudi Arabia			1,500.0						
Malaysia			917.9						
Taipei,China			146.2						
Hong Kong, China			140.6						
Singapore			106.0						

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	430.0	276.0	235.0	262.0	284.0	277.0	113.0	73.0	201.0
Hong Kong, China	35.1	15.3	14.4	68.1	73.9	70.8	53.2	52.3	60.1
Taipei,China	82.7	75.3	77.1	62.8	72.4	79.6	34.3	7.8	53.5
Malaysia	127.8	97.6	87.6	89.0	90.7	79.7	14.6	0.6	43.2
Korea, Republic of	11.8	5.5	5.9	3.7	6.9	6.2	0.6	0.2	11.6
Singapore	31.7	20.9	17.7	13.4	18.3	19.4	4.5	3.2	6.6

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	8,551	9,659	8,907	8,990	11,215	11,666	9,651	9,402	9,700

JAPAN

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	127.8	33,011	0.0	Employment / population ratio (15+, Total)	60.4
2021	125.7	35,291	1.7	Unemployment (% of total labor force)	2.8

Immigrant population in Japan

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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		
2020	2,771	2.19	51	8.3	75.3		

Stock of foreign workers by sector, 2022	Total	Construction	Manufacturing	Information and communications	Wholesale, retail	Hospitality, restaurants	Education	Health and welfare	Services, N.E.C.
Number of foreign workers ('000)	1,822.7	116.8	485.1	76.0	237.9	209.0	76.9	74.3	295.7
% of total employment									

Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	150.6	135.8	132.7	132.0	143.5	164.3	182.7	164.3	182.7	202.9	222.7

Inflows of foreign workers ('000)		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+ ('000)	215.6	348.7	564.3		266.5	437.5	704.0	
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	36.3	36.7	33.7	36.6	34.9	29.6	29.8	30.9	20.2
Korea, Republic of	5.8	5.9	4.7	4.6	4.7	4.5	5.2	5.1	4.5
United States	6.0	5.8	5.5	5.3	5.1	4.6	4.3	4.5	3.8
Germany	6.6	6.8	6.7	6.9	7.0	6.9	7.1	7.2	3.0
Netherlands	1.1	1.0	1.1	1.2	1.5	1.4	1.5	1.7	1.1
France	1.5	1.6	1.6	1.6	1.5	1.6	1.6	1.5	1.0
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		28.6	29.2	28.4	29.2	29.1	29.1	29.5	29.7
United States		16.0	15.5	15.1	15.4	14.8	14.9	14.7	14.2
United Kingdom		3.1	3.1	3.1	2.9	2.8	2.7	2.7	2.8
Australia		1.7	1.8	1.7	1.7	2.2	2.4	2.9	2.7

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total									

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	3,734	3,325	3,830	4,443	4,369	4,389	4,888	5,291	5,000

LAO PEOPLE'S DEMOCRATIC REPUBLIC

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	6.4	1,669	8.0	Employment / population ratio (15+, total)	56.8
2021	7.4	2,566	2.5	Unemployment (% of total labor force)	3.6

Immigrant population in the Lao People's Democratic Republic

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	22	0.41	47	19.7	55.9	49.5	8.2
2015	46	0.68	36	15.3	71.5		
2020	49	0.67	36	11.2	75.9		

Stock of foreign workers by sector, 2021	Total	Agriculture	Industry	Services
Number of foreign workers ('000)	46.0	5.7	27.2	13.1
% of total employment				

Stock of international students ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	0.8	0.6	0.3	0.5	0.3	0.5	0.5	0.5	0.5	0.5	

Inflows of foreign workers ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
							6.9				

Emigration from the Lao People's Democratic Republic to OECD countries

Stock of persons born in the Lao People's Democratic Republic living in OECD countries	2000				2015/16		
	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	132.8	131.4	264.1		122.3	131.7	253.9
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**2.6**	**2.5**	**2.3**	**2.7**	**2.7**	**2.7**	**2.9**	**3.4**	**1.6**
United States	1.0	0.9	0.8	0.9	0.8	0.7	0.9	0.8	0.5
Japan	0.8	0.9	0.7	1.2	1.2	1.3	1.2	1.4	0.4
Korea, Republic of	0.2	0.3	0.3	0.2	0.2	0.3	0.4	0.5	0.2
Russian Federation	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
France	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**0.73**	**0.8**	**0.8**	**0.7**	**0.8**	**0.9**	**1.0**	**1.1**	**1.2**
Australia		0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Japan		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Hungary		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total						**110.0**			

Flows of workers deployed (5 main destinations, '000)	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total	**22.5**	**8.3**	**50.7**	**58.3**	**49.4**	**120.5**	**54.1**	**28.1**	0.2
Thailand	13.6					89.8	53.8	28.0	
Korea, Republic of						0.1	0.2	0.0	0.1
Japan						0.1	0.1	0.0	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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	188	189	189	243	240	297	232	224	200

MALAYSIA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	29.2	8,394	5.3	Employment / population ratio (15+, total)	62.8
2021	33.6	10,576	3.1	Unemployment (% of total labor force)	4.0

Immigrant population in Malaysia

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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	3,281	10.84	39	26.9	62.9		
2020	3,477	10.74	38	27.7	63.4		

Stock of foreign workers by sector, 2022	Total	Agriculture, forestry, and fishing	Mining and quarrying	Manufacturing	Construction	Wholesale, retail; vehicle repair	Accommodations, food and beverage	Administrative and support services	Activities as households as employers
Number of foreign workers ('000)	1,997.8	491.3	5.1	575.8	287.2	272.6	253.0	122.3	89.4
% of total employment	12.6	31.9	5.6	21.5	22.5	10.5	16.3	15.2	85.7

Stock of international students ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	63.6	56.2		99.6	111.4	124.1	100.8	122.8	82.0	89.2	92.5

Inflows of foreign workers ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	20.1	23.0	19.3	21.6	14.9	17.2	16.8	15.6	8.5
Australia	5.4	5.6	4.5	4.0	4.1	4.2	3.4	2.5	2.1
Japan	2.5	2.1	2.2	2.3	2.5	2.7	2.9	2.9	1.3
Korea, Republic of	0.7	1.0	1.2	1.3	1.5	3.8	4.1	3.3	1.2
United States	1.5	1.6	1.5	1.5	1.6	1.4	1.3	1.4	1.0
New Zealand	1.5	1.4	1.6	1.6	1.8	1.8	1.8	1.9	0.9
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	46.10	45.7	47.7	49.2	50.9	50.1	49.9	48.2	44.3
Australia		15.5	15.4	15.0	15.3	15.1	15.7	16.1	14.1
United Kingdom		13.3	15.6	17.0	17.4	16.4	15.0	14.1	13.5
United States		7.4	7.3	7.9	8.4	8.5	8.6	7.7	6.7

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total									

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	1,580	1,644	1,604	1,649	1,686	1,597	1,427	1,565	1,620

MONGOLIA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	2.7	3,057	17.3	Employment / population ratio (15+, total)	54.1
2021	3.3	4,107	1.6	Unemployment (% of total labor force)	7.8

Immigrant population in Mongolia

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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		
2020	21	0.65	33	12.5	69.5		

Stock of foreign workers by sector, 2022	Total	Mining and quarrying	Education	Wholesale, retail; vehicle repair	Manufacturing	Administrative and support services	Construction	Agriculture
Number of foreign workers ('000)	5.7	1.4	1.0	0.4	0.2	0.0	0.2	0.0
% of total employment								

Stock of international students ('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	1.1	1.1	1.1	1.2	1.5	1.5	1.6	2.3			1.5

Inflows of foreign workers ('000)	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+ ('000)	1.8	2.6	4.4		15.6	24.0	39.7
Recent emigrants 15+ ('000)					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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	10.7	9.2	9.6	15.1	15.1	20.3	20.3	20.3	13.2
Korea, Republic of	5.7	4.3	4.0	8.3	8.2	11.8	10.2	8.7	7.1
Japan	1.5	1.5	2.0	2.3	2.5	3.2	3.7	4.1	2.3
Czech Republic	0.3	0.1	0.2	0.6	0.7	1.2	1.5	1.3	0.7
United States	0.7	0.7	0.6	0.6	0.8	0.7	0.6	0.8	0.5
Germany	0.5	0.6	1.0	1.3	0.8	0.8	0.8	0.8	0.5
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		6.6	7.5	7.4	7.9	8.8	10.1	11.5	12.9
Korea, Republic of		2.5	2.2	2.1	2.3	2.7	3.4	4.6	5.2
Japan		1.1	1.0	1.1	1.2	1.4	1.6	1.9	2.1
Australia		0.3	0.3	0.4	0.6	0.8	1.0	1.3	1.5

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total						44.0	50.0		
Korea, Republic of							6.7		
Czech Republic							4.0		

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	255	261	260	273	441	561	549	535	500

MYANMAR

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	49.8	986	7.5	Employment / population ratio (15+, total)	...
2021	53.8	1,317	–17.9	Unemployment (% of total labor force)	...

Immigrant population in Myanmar

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	98	0.21	47	18.1	60.1		
2015	73	0.14	45	13.8	63.7		
2020	76	0.14	45	13.1	65.2		

Stock of foreign workers by sector	Total
Number of foreign workers ('000)	
% of total employment	

Stock of international students ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	0.1	0.1						0.5		

Inflows of foreign workers ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018

Emigration from Myanmar to OECD countries

	2000				2015/16			
Stock of persons born in Myanmar living in OECD countries	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000)					106.5	113.0	219.6	
Recent emigrants 15+ ('000)					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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**32.9**	**26.6**	**26.3**	**31.6**	**33.5**	**34.5**	**29.7**	**25.6**	**14.4**
Japan	1.5	2.1	3.3	5.2	6.1	7.6	8.1	11.6	6.2
United States	23.0	16.2	14.2	17.1	17.0	17.3	11.1	6.4	5.3
Korea, Republic of	4.1	4.6	5.1	5.2	6.7	6.3	7.4	5.9	1.9
Germany	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.5	0.4
Australia	2.5	2.3	2.4	2.5	2.3	2.2	1.9	0.3	0.2

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		**3.3**	**3.9**	**4.2**	**4.9**	**5.5**	**6.8**	**8.3**	**8.9**
Japan		1.1	1.2	1.2	1.6	1.8	2.6	3.3	3.7
United States		1.0	1.2	1.2	1.3	1.5	1.7	1.9	1.9
Australia		0.7	0.7	0.8	0.9	1.0	1.0	1.3	1.4

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total			**2,021.9**						
Thailand			1,418.5						
Malaysia			304.0						
Singapore			79.7						
China, People's Republic of			92.3						
Japan			7.6						

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	**65.0**	**95.0**	**146.0**	**162.0**	**234.0**	**330.0**	**75.0**	**3.0**	
Japan	0.5	1.7	2.4	3.3	3.9	6.7	4.7	1.5	
Singapore	0.5	0.4	0.7	0.4	0.5	0.5	0.1	1.3	
Jordan	0.0	0.0	0.0	0.0	0.3	1.1	0.2	0.2	
United Arab Emirates	0.0	0.1	0.3	0.1	0.2	0.3	0.1	0.1	
Qatar	0.0	0.0	0.1	0.1	0.1	0.1	0.0	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

Remittance inflows (current $ million)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	1,808	1,934	2,255	2,453	2,673	2,553	2,671	2,000	1,900

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NEPAL

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	27.3	748	3.4	Employment / population ratio (15+, total)	34.8
2021	30.0	1 037	4.2	Unemployment (% of total labor force)	12.2

Immigrant population in Nepal

					Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
					Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000					718	3.00	66	20.4	59.5		
2015					509	1.89	69	16.1	69.8		
2020					488	1.67	70	11.9	76.0		

Stock of foreign workers by sector				Total							
Number of foreign workers ('000)				10.0							
% of total employment											

Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
		0.1									

Inflows of foreign workers ('000)			2012	2013	2014	2015	2016	2017	2018	2019	2020

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+ ('000)			23.9		171.6	136.0	307.6	
Recent emigrants 15+ ('000)			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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**29.1**	**34.5**	**39.1**	**43.2**	**46.3**	**47.2**	**50.8**	**49.4**	**26.5**
United States	6.9	8.8	8.6	9.3	10.2	9.5	9.9	8.8	6.7
Australia	2.5	4.0	4.4	4.2	5.1	4.4	3.0	3.8	4.7
Japan	4.8	8.3	11.5	13.4	14.1	14.5	13.0	13.1	4.2
Portugal	0.5	0.8	0.9	1.4	1.3	1.7	4.2	5.0	3.9
Korea, Republic of	6.9	6.0	6.8	6.5	8.7	8.6	9.8	8.8	3.0
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		**24.0**	**26.1**	**30.7**	**38.9**	**52.1**	**68.7**	**78.4**	**81.1**
Australia		7.2	9.2	11.8	14.7	21.1	32.9	41.9	40.8
Japan		2.4	3.1	5.1	8.4	12.8	14.5	15.0	18.4
United States		8.7	7.6	7.9	9.9	12.3	14.4	14.1	12.7

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total									

Flows of workers deployed (5 main destinations, '000)	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Total	426.0	556.0	758.0	1,009.0	734.0	700.0	218.0	617.0	1,136.0
Saudi Arabia	86.6	96.9	138.5	72.9	41.0	46.1	39.3	23.3	125.4
Qatar	128.6	124.1	129.0	121.1	103.2	75.0	29.8	22.1	76.8
United Arab Emirates	55.4	53.1	52.8	57.9	60.2	62.8	52.1	11.6	53.8
Malaysia	210.0	196.5	61.0	95.2	104.2	10.0	39.2	0.1	26.1
Kuwait	20.2	9.6	10.0	13.1	17.6	16.0	9.0	0.0	22.8

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	5,889	6,730	6,612	6,928	8,287	8,244	8,108	8,203	8,500

PAKISTAN

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	198.6	1,150	2.7	Employment / population ratio (15+, total)	49.4
2021	231.4	1,474	6.5	Unemployment (% of total labor force)	6.3

Immigrant population in Pakistan

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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		
2020	3,277	1.48	45	8.0	66.8		

Stock of foreign workers by sector	Total								
Number of foreign workers ('000)									
% of total employment									

Stock of international students ('000)	2003	2012	2013	2014	2015	2016	2017	2018	2019	2020
	0.4									

Inflows of foreign workers ('000)		2012	2013	2014	2015	2016	2017	2018	2019	2020

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+ ('000)	375.0	293.7	668.7		806.7	620.5	1,427.2	
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	84.0	72.8	80.1	99.8	96.2	92.3	91.9	97.6	...
United Kingdom	19.0	10.0	11.0	8.0	11.0	15.0	9.9	16.0	...
United States	15.0	13.3	18.7	18.1	19.2	17.0	15.4	13.6	10.2
Spain	8.3	6.5	5.3	4.8	6.4	6.6	8.7	11.7	7.4
Germany	6.5	8.0	9.5	24.5	12.2	9.0	9.8	10.1	6.9
Italy	8.8	7.8	9.6	11.4	14.7	15.0	13.2	9.9	9.7

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		25.2	28.6	31.2	35.0	36.8	40.7	43.8	46.2
Australia		4.8	6.3	8.2	10.0	10.1	11.3	12.2	11.3
United Kingdom		7.2	6.6	6.1	5.5	5.2	5.6	6.5	7.8
United States		4.6	4.8	5.2	6.1	6.9	7.4	7.6	7.5

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total									

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	752.0	947.0	839.0	496.0	382.0	625.0	225.0	288.0	832.0
Saudi Arabia	312.5	522.8	462.6	143.4	100.9	332.7	136.3	155.8	514.9
United Arab Emirates	350.5	327.0	295.6	275.4	208.6	211.2	53.7	27.4	128.5
Oman	39.8	47.8	45.1	42.4	27.2	28.4	10.3	38.3	82.4
Qatar	10.0	12.7	9.7	11.6	21.0	19.3	7.4	38.0	58.0
Bahrain	9.2	9.0	8.2	7.9	5.7	8.2	7.8	13.0	13.7

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	17,244	19,306	19,819	19,856	21,193	22,252	26,089	31,312	29,000

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PEOPLE'S REPUBLIC OF CHINA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	1,345.0	6,153	9.6	Employment / population ratio (15+, Total)	63.5
2021	1,412.4	11,188	8.1	Unemployment (% of total labor force)	5.0

Immigrant population in the People's Republic of China

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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		
2020	1,040	0.07	39	14.6	60.2		

Stock of foreign workers by sector, 2020	Total
Number of foreign workers ('000)	444.3
% of total employment	

Stock of international students ('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	89.0	96.4	108.2	123.1	137.5	157.1	178.3	201.2	225.1	221.7

Inflows of foreign workers ('000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
					336.0				

Emigration from the People's Republic of China to OECD countries

Stock of persons born in the People's Republic of China living in OECD countries	2000			2015/16			
	Men	Women	Total	Men	Women	Total	
Emigrant population 15+ ('000)	976.3	1,089.8	2,066.1	2,057.5	2,562.6	4,620.1	
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	514.7	558.6	567.7	554.9	560.2	573.0	574.7	588.1	...
Korea, Republic of	127.3	178.6	192.9	177.0	165.5	156.8	169.3	138.7	96.3
Japan	107.0	93.0	98.6	100.6	103.3	109.8	114.9	131.6	45.2
United Kingdom	41.0	46.0	39.0	43.0	35.0	58.0	55.9	74.0	...
United States	82.4	72.1	75.9	74.4	81.9	71.8	65.6	62.3	41.7
Canada	33.0	34.1	24.6	19.5	26.9	30.3	29.7	30.2	16.5

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		646.8	702.8	743.3	788.8	844.3	904.5	955.6	976.9
United States		231.9	266.1	291.1	309.8	321.6	333.9	340.2	343.8
Australia		81.8	86.2	91.5	89.3	96.5	107.8	122.1	143.9
United Kingdom		88.0	90.2	97.4	112.3	128.5	143.3	155.6	128.2

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	1,027.0	969.0	979.0	997.0	997.0	992.0	623.0	592.0	543.0

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	562.0	530.0	494.0	522.0	492.0	487.0	301.0	323.0	259.0

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	62,332	63,938	61,000	63,876	67,414	68,398	59,507	53,000	51,000

PHILIPPINES

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	96.3	2,465	3.9	Employment / population ratio (15+, total)	55.3
2021	113.9	3,328	5.7	Unemployment (% of total labor force)	2.6

Immigrant population in the Philippines

			Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
			Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000			318	0.41	49	15.8	53.4	54.8	11.9
2015			212	0.21	48	12.5	52.7		
2020			226	0.21	48	12.9	53.0		

Stock of foreign workers by sector, 2014			Total						
Number of foreign workers ('000)			91.4						
% of total employment			0.1						

Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
		4.3	3.3								
Inflows of foreign workers ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	14.3	17.1	21.0	22.7	24.3	28.4	42.0	45.3	54.2	158.7	

Emigration from the Philippines to OECD countries

	2000				2015/16		
Stock of persons born in the Philippines living in OECD countries	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	745.8	1,192.1	1,938.0		1,349.3	2,200.0	3,549.3
Recent emigrants 15+ ('000)	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
Total emigration rates (%)	3.1	4.8	3.9		3.9	6.1	5.0
Emigration rates of the high-educated (%)	5.3	8.1	6.8		11.8	16.2	14.3

Legal migration flows to OECD (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	160.6	153.2	161.6	182.8	172.3	175.1	169.0	172.0	86.1
United States	56.9	54.3	49.2	56.0	52.2	48.7	46.9	45.6	25.2
Japan	15.4	16.4	19.9	24.0	26.2	29.6	31.3	34.7	12.7
Canada	34.3	29.5	40.0	50.8	41.8	40.9	35.1	27.8	11.0
United Kingdom	2.0	2.0	4.0	3.0	3.0	5.0	5.0	12.0	...
Australia	12.8	11.0	10.3	11.9	12.0	12.1	10.9	9.2	8.5
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		9.4	11.3	12.3	13.8	14.5	15.9	19.7	23.1
Australia		2.8	4.2	4.4	5.1	5.2	6.0	9.3	10.1
United States		3.3	3.2	3.0	3.0	3.0	3.3	3.4	3.4
Canada		0.4	0.5	0.5	0.5	0.9	0.9	1.6	2.8

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	2,320.0	2,447.0	2,240.4	2,338.6	2,299.1	2,202.0	1,771.5	1,825.0	
Saudi Arabia	575.4	604.4	533.2	594.0	558.4	493.2	485.5	445.3	
United Arab Emirates	361.9	379.3	356.2	357.8	361.1	290.7	289.6	262.8	
Hong Kong, China	116.0	144.4	125.5	152.0	143.8	165.2	161.1	122.3	
Kuwait	123.0	141.9	143.4	156.7	131.7	136.5	132.8	107.7	
Taipei,China	111.4	110.1	116.5	88.9	125.4	147.5	148.0	62.1	
Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	1,430.9	1,437.9	1,670.0	1,595.0	1,507 p	1,649 p	333 p	397 p	820 p
Saudi Arabia	402.8	594.0	460.1	433.6		412.5	86.8		
United Arab Emirates	246.2	227.1	276.3	265.5		269.9	50.8		
Singapore	140.2	141.5	171.0	162.2		163.5	32.4		
Hong Kong, China	105.7	85.7	116.5	144.5		159.1	32.3		
Qatar	114.5	133.2	141.3	122.6		121.8	23.5		

Net migration rate (per thousand)	1985–1990	1990–1995	1995–2000	2000–2005	2005–2010	2010–2015	2015–2020	2020–2025	2020–2025
	–1.08	–2.12	–2.57	–3.03	–3.44	–1.70	–0.63	–0.59	–0.61

Remittance inflows (current $ million)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	28,691	29,799	31,142	32,810	33,809	35,167	34,883	36,685	38,000

REPUBLIC OF KOREA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	49.9	26,187	3.7	Employment / population ratio (15+, total)	60.8
2021	51.7	32,731	4.1	Unemployment (% of total labor force)	3.6

Immigrant population in the Republic of Korea

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	244	0.52	41	26.8	66.4		
2015	1,371	2.70	44	21.4	66.1		
2020	1,728	3.37	45	21.6	66.0		

Stock of foreign workers by sector, 2022	Total	Agriculture, forestry, and fishing	Mining and quarrying	Manufacturing	Construction	Wholesale and retail, food, lodging	Electricity, transportation, telecommunication, finance
Number of foreign workers ('000)	843.0	45.8	0.2	370.1	102.6	157.3	25.8
% of total employment	3.2	3.7	2.0	9.0	4.7	2.8	0.4

Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	59.2	62.7	59.5	55.5	52.5	54.5	61.9	70.8	84.7	98.9	111.6

Inflows of foreign workers ('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
								264.0	79.5	37.7	188.0

Emigration from the Republic of Korea to OECD countries

Stock of persons born in the Republic of Korea living in OECD countries	2000			2015/16			
	Men	Women	Total	Men	Women	Total	
Emigrant population 15+ ('000)	628.9	817.2	1,446.1	766.3	1,020.4	1,786.7	
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**71.9**	**75.8**	**71.6**	**66.7**	**73.6**	**73.8**	**77.3**	**81.5**	**42.5**
United States	20.7	23.0	20.2	17.0	21.7	19.0	17.5	18.3	16.1
Japan	25.7	24.2	21.1	22.6	25.6	28.0	32.4	33.9	8.3
Germany	4.9	5.5	6.3	7.2	7.7	8.2	7.9	7.7	3.9
Canada	5.3	4.5	4.5	4.1	4.0	4.0	4.8	6.1	3.3
Australia	5.0	5.4	3.8	3.6	3.3	3.2	2.2	2.5	2.6
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		**111.1**	**108.1**	**102.7**	**99.8**	**99.4**	**96.6**	**96.9**	**97.4**
United States		70.5	67.6	64.0	60.5	56.2	52.4	49.6	47.0
Japan		16.5	15.0	13.5	13.0	13.1	13.2	14.3	15.8
Australia		6.8	6.6	6.2	6.1	8.3	8.4	8.6	8.2

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total									

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2012	2013	2014	2015	2016	2017	2018	2019	2020
	6,589	6,475	6,574	6,464	6,524	6,526	7,125	7,166	7,413

SINGAPORE

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	5.2	50,714	6.2	Employment / population ratio (15+, total)	68.7
2021	5.5	66,176	7.6	Unemployment (% of total labor force)	3.5

Immigrant population in Singapore

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	1,352	33.55	55	5.2	73.2		
2015	2,483	44.41	56	8.1	71.8		
2020	2,524	43.14	56	8.7	72.3		

Stock of foreign workers by sector, 2022	Total	Manufacturing	Construction	Services
Number of foreign workers ('000)	1,424.2	242.3	379.9	796.7
% of total employment	36.6	50.1	76.1	27.6

Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	48.6	47.9	53.0	48.9			53.1	53.2	51.8	53.0	55.0

Inflows of foreign workers ('000)	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 countries	Men	Women	Total	Men	Women	Total
Emigrant population 15+ ('000)	48.5	58.1	106.6	66.4	90.0	156.4
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	9.8	8.3	9.3	7.4	7.4	12.6	12.6	12.4	...
United Kingdom	4.0	2.0	3.0	1.0	1.0	6.0	6.0	6.0	...
Australia	1.8	2.0	1.9	1.9	1.7	1.6	1.4	1.2	0.9
Japan	0.5	0.5	0.5	0.6	0.7	0.7	0.9	1.0	0.3
United States	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.7
Germany	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.3
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	20.0	21.5	22.2	23.0	23.5	22.3	22.2	21.8	20.1
United Kingdom		5.9	6.8	7.3	7.5	7.3	7.0	6.8	6.8
Australia		9.1	8.8	8.8	8.9	7.9	8.0	7.8	6.3
United States		4.5	4.6	4.7	4.5	4.4	4.2	4.1	3.9

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	200.0	207.0	212.2	212.5	213.4				

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e

SRI LANKA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	20.4	3,331	8.7	Employment / population ratio (15+, total)	49.2
2021	22.2	4,376	3.3	Unemployment (% of total labor force)	5.2

Immigrant population in Sri Lanka

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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	40	0.19	48	19.0	36.5		
2020	40	0.19	47	21.1	44.0		

Stock of foreign workers by sector, 2017		Total
Number of foreign workers ('000)		30.6
% of total employment		

Stock of international students ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	0.4	0.4	0.8	0.9	1.0	1.3	1.3	1.3	1.5	1.3	1.2

Inflows of foreign workers ('000)	2013	2014	2015	2016	2017	2018	2019	2020	2021
				13.7	16.9	15.1		4.9	4.6

Emigration from Sri Lanka to OECD countries

Stock of persons born in Sri Lanka living in OECD countries	2000			2015/16		
	Men	Women	Total	Men	Women	Total
Emigrant population 15+ ('000)	169.2	147.7	317.0	353.5	329.0	682.5
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	34.3	29.9	30.4	31.4	30.5	27.3	25.1	25.9	16.3
Japan	1.5	1.5	2.2	3.1	4.7	5.6	4.0	3.3	2.9
Australia	5.7	5.3	4.5	3.9	3.8	3.2	2.7	2.7	2.4
Italy	7.1	6.3	5.3	4.8	4.0	3.7	3.4	4.1	2.3
France	2.5	2.5	2.5	2.3	2.5	2.3	2.2	2.1	1.5
United States	1.9	1.7	1.7	1.7	1.8	1.5	1.5	1.6	1.4

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		12.1	12.4	12.5	14.1	15.8	18.9	22.9	23.9
Australia		4.0	4.4	4.9	6.1	7.0	8.8	11.3	10.5
Japan		0.7	0.8	0.9	1.1	1.8	2.9	4.3	5.5
United States		3.0	2.9	2.8	3.0	3.2	3.2	3.2	3.0

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2008	2009	2010		2016	2017	2018	2019	2020
Total	1,792.4	1,831.4	1,932.2						
Saudi Arabia		600.0							
Kuwait		200.0							
United Arab Emirates		150.0							
Qatar									
Lebanon									

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	301.0	263.0	243.0	212.0	211.0	190.0	54.0	122.0	300.0
Qatar	84.6	65.1	59.5	56.6	50.8	40.8	9.7	30.3	70.0
Saudi Arabia	80.5	74.9	63.4	37.7	35.9	35.5	9.4	27.4	51.4
United Arab Emirates	50.3	43.7	40.1	36.7	32.8	32.9	10.7	20.1	...
Kuwait	43.6	38.5	32.4	37.4	47.0	43.1	8.0	12.7	76.6
Maldives	4.5	4.8	6.1	6.3	7.3	7.8	2.4	7.1	...

Net migration rate (per thousand)	1985–1990	1990–1995	1995–2000	2000–2005	2005–2010	2010–2015	2015–2020	2020–2025	2025–2030
	−1.64	−2.88	−4.99	−4.69	−5.23	−4.71	−4.63	−4.03	−3.77

Remittance inflows (current $ million)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	7,036	7,000	7,262	7,190	7,043	6,749	7,140	5,522	3,600

TAIPEI,CHINA

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2019, %)	
2011	23.2	20,866	3.7	Employment / population ratio (15+, total)	57.0
2021	23.4	32,811	6.5	Unemployment (% of total labor force)	3.7

Immigrant population in Taipei,China

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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, 2022			Total	Agriculture, forestry, fishing, and animal husbandry	Manufacturing	Construction	Social welfare (nurses and home-maids)
Number of foreign workers ('000)			728.1	13.8	476.7	15.7	221.9
% of total employment			6.4	2.6	15.8	1.7	

Stock of international students ('000)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	11.6	12.6	14.1	15.8	17.8	21.2	28.4	31.8	32.0	34.5
Inflows of foreign workers ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019

Emigration from Taipei,China to OECD countries

Stock of persons born in Taipei,China living in OECD countries	2000				2015/16		
	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	191.6	238.3	429.9		226.9	318.9	545.9
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**17.6**	**22.0**	**18.2**	**21.7**	**26.0**	**27.8**	**30.1**	**32.5**	**15.8**
United States	5.5	5.4	4.7	4.9	5.1	4.9	5.2	5.8	4.7
Japan	6.6	6.6	7.7	10.8	12.2	13.7	14.9	16.3	4.2
Korea, Republic of	1.6	2.0	2.0	2.0	2.3	2.5	2.8	2.7	1.9
Australia	0.8	1.0	0.9	1.0	1.1	1.2	1.1	1.2	1.3
Germany	0.0	0.0	0.0	0.0	1.7	1.9	2.0	2.1	1.0
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total							67.7	71.5	60.3
United States				21.1	21.5	22.5	22.9	23.7	19.7
Australia							18.2	18.4	15.6
Japan							10.3	9.6	7.2

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	**698.0**	**717.0**	**726.0**	**724.0**	**728.0**	**736.0**	**737.0**	**739.0**	**501.0**
People's Republic of China	430.0	430.0	427.0	420.0	407.0	405.0	404.0	395.0	242.0
United States	90.0	80.0	86.0	92.0	99.0	101.0	95.0	92.0	77.0

Flows of workers deployed (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e

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THAILAND
KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	68.7	5,092	0.8	Employment / population ratio (15+, total)	66.2
2021	71.6	6,124	1.5	Unemployment (% of total labor force)	1.0

Immigrant population in Thailand

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% of population	% women	% 15–24	% 25–64	% low-educated	% high-educated
2000	1,258	2.00	49	30.8	47.0	84.7	9.9
2015	3,470	5.05	50	16.6	67.8		
2020	3,632	5.20	50	16.6	67.8		

Stock of foreign workers by sector, 2022				Total, 2020	Agriculture	Manufacturing	Construction	Mining and quarrying; electricity, gas, and water supply	Trade, transportation, accommodation and food, and business and administrative services	Public administration, community, social, and other services and activities	
Number of foreign workers ('000)				1,117.0	133.7	516.8	73.5	3.7	330.2	72.6	
% of total employment				2.9	1.1	8.2	3.6	1.5	2.7	1.5	
Stock of international students ('000)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	19.1	20.2	20.3				31.6				25.1
Inflows of foreign workers ('000)	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

	2000				2015/16		
Stock of persons born in Thailand living in OECD countries	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	90.8	180.0	270.8		171.1	438.7	609.8
Recent emigrants 15+ ('000)	15.8	33.9	49.7		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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	53.9	58.7	85.0	60.6	65.2	108.7	118.7	93.0	30.2
Korea, Republic of	13.8	18.3	48.3	20.1	28.5	71.5	80.3	53.3	8.7
Japan	15.4	15.4	14.3	14.5	15.4	16.4	17.1	17.9	6.4
United States	4.4	4.6	4.0	4.1	4.4	4.0	3.9	4.5	3.3
Germany	3.3	3.2	3.1	3.2	3.4	3.4	3.9	3.7	2.8
Australia	2.7	3.1	2.7	2.5	2.8	2.7	2.5	2.3	2.0
Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		21.1	21.4	23.5	24.5	26.4	27.2	26.9	26.5
Australia		3.2	2.9	4.8	5.7	7.4	7.8	7.7	6.8
United Kingdom		6.0	6.2	6.1	6.0	6.1	6.2	6.3	6.7
United States		7.0	7.1	7.1	6.9	6.4	6.4	6.0	5.8

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	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, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	120.0	117.0	114.0	115.0	116.0	114.0	41.0	37.0	88.0
Taipei,China	37.1	34.7	35.0	35.2	33.5	32.2	13.7	6.8	25.4
Israel	7.6	7.1	8.6	7.5	8.3	9.1	2.5	6.1	9.4
Korea, Republic of	9.8	0.2	12.6	12.6	12.5	12.5	3.1	3.2	8.6
Japan	7.6	7.7	8.6	9.2	9.2	9.6	4.8	0.6	8.1
Sweden	0.0	0.0	0.0	0.0	0.0	6.2	3.2	5.3	6.8

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	6,524	5,895	6,270	6,720	7,466	8,162	8,257	9,065	9,500

VIET NAM

KEY INDICATORS

	Population (million)	GDP per capita (constant 2015 $)	GDP growth rate (annual, %)	Labor market indicators (2021, %)	
2011	88.3	2,136	6.4	Employment / population ratio (15+, total)	71.2
2021	97.5	3,409	2.6	Unemployment (% of total labor force)	2.4

Immigrant population in Viet Nam

	Stock of foreign-born population (0+)			Foreign-born population, 15 years old and over			
	Total ('000)	% 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		
2020	77	0.08	42	11.9	69.1		

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 ('000)	68.3	19.2	13.4	3.2	28.8	3.8
% of total employment	1.3	1.0	1.2	0.7	5.6	2.5

Stock of international students ('000)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	3.7	4.0	3.6	2.5	2.9	5.6	4.2		7.3	8.6	8.4

Inflows of foreign workers ('000)	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

Stock of persons born in Viet Nam living in OECD countries	2000				2015/16		
	Men	Women	Total		Men	Women	Total
Emigrant population 15+ ('000)	747.4	768.6	1 515.9		1,016.5	1,179.2	2,195.7
Recent emigrants 15+ ('000)	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, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	96.7	105.7	129.4	155.6	188.4	218.4	249.0	288.8	160.5
Japan	19.5	31.7	43.0	65.9	77.5	98.6	123.3	148.2	71.1
United States	27.6	26.5	29.4	30.4	40.1	37.9	33.4	39.2	29.5
Korea, Republic of	24.7	22.2	28.0	30.2	40.1	48.0	56.0	61.3	28.0
Germany	3.9	4.1	5.1	6.1	7.0	7.0	8.5	8.8	7.5
Russian Federation	3.5	3.7	3.7	3.9	3.6	3.8	3.8	6.6	6.1

Stock of international students (3 main destinations, '000)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total		53.2	57.1	63.6	78.2	90.2	104.3	122.7	133.1
Japan		4.2	6.1	10.6	19.2	26.8	34.3	40.6	44.1
United States		17.7	17.9	19.3	22.2	23.2	25.6	26.0	25.2
Korea, Republic of		2.1	2.1	2.5	3.4	4.7	7.8	13.2	19.1

Emigration to non-OECD destinations

Stock of workers overseas (5 main destinations, '000)	2010	2011	2012	2013	2014	2017	2018	2019	2020
Total							580.0	650.0	
Taipei,China						200.0	206.2		
Malaysia		74.8			70.0				
Russian Federation									
Lao People's Democratic Republic				30.0					
Saudi Arabia									

Flows of workers deployed (5 main destinations, '000)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	106.8	116.0	126.3	134.8	142.9	152.5	78.6	45.0	143.0
Japan	19.8	27.0	39.9	54.5	68.7	82.7	38.9	19.5	56.2
Taipei,China	62.1	67.1	68.2	67.0	60.4	54.5	34.6	19.5	59.3
Korea, Republic of	7.2	6.0	8.5	5.2	6.5	7.2	1.3	1.0	9.5
Romania						3.5	0.9	0.8	
Canada							0.8		

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022e
	12,000	13,000	14,000	15,000	16,000	17,000	17,200	18,060	19,000

GENERAL NOTES

1. All tables with top three/five destinations are ranked by decreasing order of frequency for the last year available.

2. "n.a." means data not available.

3. 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).

4. The definition of non-citizen students was only used for the economies for which no data on nonresident students were available.

5. Data on international students in the Asian economies are only for degree programs (undergraduate and upward) and do not include short-term language courses.

6. 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+ ('000)	United Nations, Department of Economic and Social Affairs (2020). International migrant stock: The 2020 revision
% of total population 0+	United Nations, Department of Economic and Social Affairs (2020). International migrant stock: The 2020 revision
Age structure (2000, %) (population 15+)	United Nations, Department of Economic and Social Affairs (2020). International migrant stock: The 2020 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)
International students	Public and private universities summed	University Grants Commission, UNESCO UIS
Inflow of foreign workers ('000)	New permits only	Bangladesh Investment Development Authority (BIDA)
Cambodia		
Stock of workers overseas in non-OECD countries		Ministry of Labour report, February 2022
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 such as Germany, United Kingdom, and United States are not included	
Stock of foreign workers		
Inflow of foreign workers ('000)		Annual report, Immigration Department (https://www.immd.gov.hk/eng/press/press-publications.html)
Stock of workers in non-OECD countries		
Flows of workers deployed to non-OECD countries		
India		
Stock of workers overseas in non-OECD countries	Non-Resident Indians. Includes all NRIs, whether workers or not. 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
		E-migrate (https://emigrate.gov.in/ext/preViewPdfGenRptAction.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		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 People's Democratic Republic

Stock of foreign workers		IOM
		"Lao PDR Labour Force Survey 2017," Laos Statistics Bureau, Ministry of Planning and Investment, June 2018
Inflows of foreign workers	Number of work permits issued	Department of Skills Development and Employment, Ministry of Labour and Social Welfare
Flows of workers deployed to non-OECD countries		ILO-ILMS
		LAOSIS (Laos Statistical Information Service)

Malaysia

Stock of foreign workers	Figure for agriculture includes plantation	Department of Statistics Malaysia

Mongolia

Stock of foreign workers		National Statistics Office of Mongolia

Myanmar

Flows of workers deployed to non-OECD countries	Adjusted from Myanmar fiscal year to calendar year using quarterly data	Central Statistical Organization of Myanmar
Stock of workers in non-OECD countries		Central Statistical Organization of Myanmar

Nepal

Flows of workers deployed to non-OECD countries	Excludes re-entries. All totals include OECD countries	Department of Foreign Employment, for Nepalese Fiscal Years (mid-July to mid-July)

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	Residents for purpose of employment, 2020 Census (preliminary)	National Bureau of Statistics
Emigrant population living in OECD countries	Some destination economies such as Germany and United States include Taipei,China and Hong Kong, China data	
International students in OECD countries	Figures include those for Taipei,China	OECD Education database
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
Inflows of foreign workers		Korean Statistical Information Service

Singapore

Stock of foreign workers		Ministry of Manpower

Sri Lanka

Inflows of foreign workers		Issuance of residence visas for private and public sector employment, Board of Investment and Construction
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

Taipei,China

Key indicators		National Statistics
Stock of foreign workers		Ministry of Labor
Stock of international students		Ministry of Education, UNESCO UIS
Emigrant population living in OECD countries	Some destination countries such as Australia, Germany, and United States are not included	
International students in OECD countries	Number of students obtaining visas from foreign nations	Ministry of Education, UNESCO UIS
Stock of workers in non-OECD countries	All totals include OECD countries	Directorate-General of Budget, Accounting and Statistics (People's Republic of China includes Hong Kong, China and Macau, China)

Thailand

Stock of foreign workers	Only total is the number of 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. Includes New and Re-entries	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		MOLISA

ANNEX 2

COMPARATIVE TABLES

Table A2.1: Inflows from Asia to the OECD, by Economy of Origin ('000)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Afghanistan	17	20	15	13	13	16	15	11	13	18	24	29	35	34	45	139	153	105	103	101	75
Azerbaijan	1	2	5	4	4	4	5	3	3	3	6	4	4	4	5	6	23	28	30	34	22
Bangladesh	23	24	19	22	30	37	42	34	40	50	50	50	42	43	47	51	51	52	54	53	34
Bhutan	0	0	0	0	0	0	0	0	1	3	9	14	13	11	9	7	5	7	5	3	2
Brunei Darussalam	0	0	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	21	10
China, People's Republic of	282	334	335	322	367	438	503	518	530	460	508	531	504	547	555	541	553	563	566	572	318
Georgia	1	2	7	7	8	11	10	9	8	8	8	9	10	11	12	14	19	22	24	30	21
Hong Kong, China	10	12	13	12	10	8	10	8	8	6	9	7	6	9	7	7	14	17	17	15	10
India	113	151	161	145	192	213	206	213	215	227	253	243	229	241	263	268	278	310	354	407	253
Indonesia	29	32	33	31	27	35	30	27	31	22	25	29	31	36	35	35	39	39	48	54	28
Japan	34	38	39	35	36	42	34	32	29	34	32	34	37	37	34	37	35	29	30	31	21
Kazakhstan	5	4	17	15	12	9	8	7	7	7	8	9	7	9	11	12	19	25	31	32	17
Korea, Republic of	59	69	62	54	57	66	68	72	79	78	76	71	71	75	70	65	73	73	77	81	43
Kyrgyz Republic	1	1	3	3	3	3	3	4	3	3	4	3	3	3	3	4	11	14	15	16	9
Lao People's Democratic Republic	2	2	2	1	2	2	4	4	3	3	3	3	2	2	2	3	3	3	3	3	1
Malaysia	11	14	12	13	16	11	12	20	24	20	22	17	21	23	19	22	16	17	17	15	9
Maldives	0	0	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	19	13
Myanmar	2	3	3	3	3	5	11	10	10	23	19	24	27	23	23	27	29	34	30	26	14
Nepal	4	3	5	6	8	9	14	17	19	23	25	30	33	39	42	47	49	47	50	49	28
Pakistan	54	59	49	47	73	74	83	74	76	77	100	106	84	73	78	99	96	92	91	97	68
Philippines	165	188	195	192	211	192	173	169	158	164	168	161	160	152	158	181	173	175	169	171	87
Singapore	6	6	6	5	6	7	7	7	7	7	5	7	9	9	8	9	7	7	13	13	12	7
Sri Lanka	23	21	22	24	23	28	28	21	33	33	41	36	35	30	29	31	30	27	25	25	16
Tajikistan	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	4	5	4	6	4
Taipei,China	16	21	21	15	20	17	32	33	22	24	20	18	17	22	18	22	26	28	30	32	16
Thailand	32	35	34	35	36	47	51	48	47	47	50	53	59	61	87	64	68	109	119	93	31
Timor-Leste	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	0
Turkmenistan	0	0	0	0	0	1	1	1	1	1	2	1	1	1	0	1	9	21	36	81	49
Uzbekistan	8	6	8	11	8	9	11	12	20	13	16	16	19	19	21	21	33	45	43	58	29
Viet Nam	52	60	64	55	66	78	82	88	98	76	87	95	94	102	125	152	186	214	243	282	155
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**	**2,154**	**2,265**	**2,420**	**1,389**

OECD = Organisation for Economic Co-operation and Development.

Source: OECD International Migration Database.

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

	Bangladesh										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gulf Cooperation Council countries											
United Arab Emirates	215,452	14,241	24,232	25271	8,131	4,135	3,235	3,318	1,082	29,202	101,775
Saudi Arabia	21,232	12,654	10,657	58,270	143,913	551,308	257,317	399,000	161,726	457,227	612,418
Oman	170,326	134,028	105,748	129,859	188,247	89,704	72,504	72,654	21,071	55,009	179,612
Kuwait	2	6	3,094	17,472	38,188	49,604	27,637	12,299	1,744	1,848	20,422
Bahrain	21,777	25,155	23,378	20,720	72,167	19,318	811	133	3	11	10
Qatar	28,801	57,584	87,575	123,965	120,382	82,012	76,560	50,292	3,608	11,158	24,447
Other Middle East											
Jordan	11,726	21,383	20,338	22,093	23,017	20,449	9,724	20,347	3,769	13,816	12,231
Lebanon	14,864	15,098	16,640	19,113	15,095	8,327	5,991	4,863	488	235	858
Iraq	359	7,456	13,627	13,982	4,738	3,819	19,567	9,266		5	64
Israel											
Asia, OECD											
Japan	420	41	55	99	165	145	163	229	142	3	172
Korea, Republic of	1,447	2,121	1,748	2,359	1,980	1,829	2,287	1,647	208	108	5,910
Asia, non-OECD											
Singapore	58,657	60,057	54,750	55,523	54,730	40,401	41,393	49,829	10,085	27,875	64,383
Malaysia	804	3,853	5,134	30,483	40,126	99,787	175,927	545	125	28	50,090
Taipei,China											
Thailand											
Hong Kong, China											
Macau, China											
Maldives											
Brunei Darussalam	5,038	5,971	6,633	6,354	5,836	8,587	4,480	3,628	530	12	1,850
Indonesia											
India											
China, People's Republic of											
Other Destinations											
Mauritius	5,421	5,961	5,938	4,753	4,679	5,942	6,608	7,576	2,014	215	5,484
United Kingdom				4	11	7	8	11	21	123	942

Table A2.2 *continued*

	India										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gulf Cooperation Council countries											
United Arab Emirates	141,138	202,016	224,033	225,718	163,731	149,962	112,059	76,112	17,891	10,844	33,233
Saudi Arabia	357,503	354,169	329,937	308,380	165,356	78,611	72,399	161,103	44,316	32,845	178,630
Oman	84,384	63,398	51,318	85,054	63,224	53,332	36,037	28,392	7,206	19,452	31,994
Kuwait	55,868	70,072	80,419	66,579	72,402	56,380	57,613	45,712	8,107	10,158	71,432
Bahrain	20,150	17,269	14,220	15,623	11,964	11,516	9,142	9,997	4,175	6,382	10,232
Qatar	63,096	78,367	75,935	59,384	30,619	24,759	34,471	31,810	8,907	49,579	30,871
Other Middle East											
Jordan	1,819	1,462	2,133	2,047	2,742	2,341	1,941	3,941	317	2,386	2,487
Lebanon	288	281	313	341	316	110	109	160	21	54	282
Iraq	925	6,553	3,054	1	0	0	0	162	759	935	1,430
Israel											
Asia, OECD											
Japan											
Korea, Republic of											
Asia, non-OECD											
Singapore											
Malaysia	21,241	22,388	22,926	20,908	10,604	14,002	16,370	10,633	2,435	36	12,836
Taipei,China											
Thailand	9	15	53	10	1	0	6	24	10	1	3
Hong Kong, China											
Macau, China											
Maldives											
Brunei Darussalam											
Indonesia	11	38	29	6	1	10	10	0	1	0	0
India											
China, People's Republic of											
Other Destinations											
Mauritius											
Romania											

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Table A2.2 *continued*

	Indonesia										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gulf Cooperation Council countries											
United Arab Emirates	35,571	44,505	17,962	7,619	2,575	1,667	726	578	117	437	548
Saudi Arabia	40,655	45,394	44,325	23,000	13,538	6,471	5,894	7,018	1,793	747	4,676
Oman	8,836	10,719	19,141	6,766	1,014	1,085	749	471	65	37	115
Kuwait	2,518	2,534	1,714	310	987	1,162	1,172	782	74		718
Bahrain	6,328	5,384	5,472	2,570	123	125	86	130			
Qatar	20,380	16,237	7,862	2,460	1,355	1,037	587	217	42	219	848
Other Middle East											
Jordan	106	0	0	103	65		7	48	2	33	
Lebanon											
Iraq											
Israel											
Asia, OECD											
Japan	3,293	3,042	2,428	468	279	538	458	486	749	359	5,832
Korea, Republic of	13,593	15,374	11,848	5,501	5,912	3,728	6,905	6,193	641	174	11,554
Asia, non-OECD											
Singapore	41,556	34,655	31,680	20,895	17,700	13,379	18,324	19,354	4,474	3,217	6,624
Malaysia	134,023	150,236	127,827	97,635	87,616	88,991	90,671	79,663	14,630	563	43,163
Taipei,China	81,071	83,544	82,665	75,303	77,087	62,823	72,373	79,574	34,287	7,789	53,459
Thailand	1,035	1,041	717	90	6	6	11				
Hong Kong, China	45,478	41,769	35,050	15,322	14,434	68,103	73,917	70,840	53,178	52,278	60,096
Macau, China											
Maldives							322	292	73	449	1,164
Brunei Darussalam	13,146	11,269	11,616	9,993	8,152	6,623	5,707	5,639	1,202	0	513
Indonesia											
India	535	409	203	68	97						
China, People's Republic of	1,967	2,055	915	108	65	84	22				
Other Destinations											
Mauritius	982	1,017	838	144	5						
Romania							25	34	34	83	288

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Table A2.2 *continued*

	Nepal										
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Gulf Cooperation Council countries											
United Arab Emirates	34,503	58,586	55,426	53,094	52,793	57,887	60,244	62,776	52,085	11,611	53,844
Saudi Arabia	68,103	96,903	86,613	96,887	138,529	72,892	40,962	46,080	39,279	23,324	125,369
Oman	1,884	3,931	3,952	3,470	3,059	3,066	3,059	2,722	1,996	1,556	3,626
Kuwait	9,165	17,376	20,196	9,634	10,049	13,134	17,555	15,995	8,974	2	22,786
Bahrain	3,100	4,255	4,418	4,168	3,146	3,911	4,862	4,633	3,305	3,146	7,592
Qatar	44,883	103,932	128,550	124,050	129,038	121,128	103,179	75,024	29,835	22,131	76,823
Other Middle East											
Jordan	558	520	440	385	1,232	2,745	1,944	1,458	2,374	930	927
Lebanon	2	181	447	181	167	146	22	11	5	2	3
Iraq											
Israel	7	0	0	0	189	132	118	58	14	1	306
Asia, OECD											
Japan					3,844	2,238	761	959	939	553	2,478
Korea, Republic of					80	90	27	22	50	16	173
Asia, non-OECD											
Singapore					89	148	127	206	85	28	188
Malaysia	96,272	158,663	210,009	196,497	60,979	95,244	104,209	9,999	39,167	107	26,091
Taipei,China					0						
Thailand					21	26	31	30	5	2	12
Hong Kong, China	140	143	139	163	360	175	175	88	91		0
Macau, China	359	318	391	484				739	572	0	0
Maldives	7	25	104	45				1,974	887	1,008	2,735
Brunei Darussalam					150	158	144	143	121	5	285
Indonesia					6	1	5	1	13	1	1
India											
China, People's Republic of					181	186	269	448	151	66	1
Other Destinations											
Mauritius								90	74	46	260
Romania	71	35	14	1				1,178	1,930	1,912	6,418
United Kingdom								60	38	315	2,808

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Table A2.2 *continued*

	Pakistan										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gulf Cooperation Council countries											
United Arab Emirates	182,630	273,234	350,522	326,986	295,647	275,436	208,635	211,216	53,676	27,442	128,477
Saudi Arabia	358,560	270,502	312,489	522,750	462,598	143,363	100,910	332,713	136,339	155,771	514,909
Oman	69,407	47,794	39,793	47,788	45,085	42,362	27,202	28,391	10,336	38,349	82,380
Kuwait	5	229	132	164	770	773	493	126	15	54	2,089
Bahrain	10,530	9,600	9,226	9,029	8,226	7,919	5,745	8,189	7,843	12,977	13,653
Qatar	7,320	8,119	10,042	12,741	9,706	11,592	20,993	19,327	7,421	37,985	57,999
Other Middle East											
Jordan	279	345	328	321	282	285	170	205	54	334	349
Lebanon	23	15	57	33	42	24	27	12	1	7	12
Iraq	32	951	1,041	709	543	599	756	2,306	1,177	2,819	2,387
Israel											
Asia, OECD											
Japan	62	44	69	82	102	153	258	391	356	17	900
Korea, Republic of	7	12	46	13	17	9	13	25	15	28	2,025
Asia, non-OECD											
Singapore	47	42	76	68	33	544	65	82	37	21	95
Malaysia	1,309	2,031	20,577	20,216	10,625	7,174	9,881	11,323	2,296	106	6,175
Taipei,China											
Thailand											
Hong Kong, China	17	20	38	29	38	54	57	60	52	52	75
Macau, China											
Maldives											
Brunei Darussalam	74	67	48	85	85	212	225	187	32	7	202
Indonesia											
India											
China, People's Republic of	220	155	254	355	482	457	854	1,252	298	607	673
Other Destinations											
Mauritius											
Romania											3,263
United Kingdom											2,922

Table A2.2 *continued*

	Philippines							
	2012	2013	2014	2015	2016	2017	2019	2020
Gulf Cooperation Council countries								
United Arab Emirates	259,546	261,119	246,231	227,076	276,278	265,498	269,921	50,759
Saudi Arabia	330,040	382,553	402,837	406,089	460,121	433,567	412,521	86,817
Oman	16,048	16,577	15,880	22,274	27,579	25,399	25,364	5,904
Kuwait	75,286	67,856	70,098	86,019	109,615	107,604	125,457	11,083
Bahrain	22,271	20,546	18,958	21,428	21,429	21,388	20,887	5,021
Qatar	104,622	94,195	114,511	133,169	141,304	122,619	121,832	23,513
Other Middle East								
Jordan	3,025	2,223	3,393	7,253	9,970	7,063	7,758	1,524
Lebanon	1,227	2,874	3,010	3,694	3,959	4,179	3,886	734
Iraq				487	525	521	1,066	71
Israel	4,582	4,385	4,590	2,288	6,392	6,879	7,748	1,717
Asia, OECD								
Japan	9,947	10,936	12,815	14,161	21,363	21,924	32,844	10,579
Korea, Republic of	8,979	11,664	11,958	11,418	13,592	13,479	14,221	3,121
Asia, non-OECD								
Singapore	172,690	173,666	140,205	141,453	171,014	162,223	163,546	32,379
Malaysia	38,407	34,088	31,451	26,199	33,178	33,194	30,871	5,826
Taipei,China	41,492	41,145	58,681	62,598	65,364	69,235	71,132	16,113
Thailand	9,204	8,659	6,653	7,204	9,321	10,405	12,719	2,305
Hong Kong, China	131,680	130,686	105,737	85,704	116,467	144,535	159,093	32,261
Macau, China				9,756	14,088	17,790	24,941	3,624
Maldives				1,214	1,492	1,404	1,881	485
Brunei Darussalam	14,907	17,000	11,478	14,088	10,099	14,925	13,836	2,433
Indonesia	5,166	5,489	5,007	3,880	5,302	4,984	5,014	1,840
India				466	581	386	279	58
China, People's Republic of	9,969	9,829	6,229	6,564	9,166	9,369	10,040	1,171
Other Destinations								
Mauritius				37	53	51	15	8
Romania				249	229	278	608	156

Table A2.2 *continued*

	Sri Lanka										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gulf Cooperation Council countries											
United Arab Emirates	38,234	48,502	50,347	43,666	40,124	36,667	32,836	32,866	10,708	20,050	
Saudi Arabia	97,993	80,887	80,480	74,894	63,389	37,745	35,866	35,478	9,402	27,417	51,421
Oman	4,889	5,317	5,759	7,082	9,748	8,865	8,345	9,016	2,714	6,416	
Kuwait	44,229	42,740	43,552	38,473	32,415	37,410	46,951	43,089	8,036	12,730	76,579
Bahrain	4,533	4,547	3,979	3,722	3,222	3,002	2,922	3,017	1,047	1,896	
Qatar	57,478	80,724	84,622	65,139	59,527	56,637	50,774	40,785	9,651	30,334	69,992
Other Middle East											
Jordan	10,387	7,060	6,197	4,809	3,870	3,925	4,163	4,611	955	2,095	
Lebanon	3,945	3,537	3,058	2,604	2,640	2,408	2,229	1,902	537	703	
Iraq				110	171	162	262	183			
Israel	1,768	1,944	2,010	1,986	2,274	2,498	2,033	1,559		1,264	
Asia, OECD											
Japan	112	118	88	106	144	402				807	4,410
Korea, Republic of	5,629	5,402	6,686	6,967	8,609	5,807	5,409	6,207	1,292	1,426	6,120
Asia, non-OECD											
Singapore	980	1,265	1,470	1,461	1,840	1,795	1,917	2,124	762	1,178	
Malaysia	2,691	3,297	3,312	3,239	2,916	1,996	2,455	3,296	522		
Taipei,China											
Thailand	2				11	16	30	31			
Hong Kong, China	449	513	468	493	573	636	584	624	216		
Macau, China											
Maldives	4,044	3,485	4,511	4,813	6,116	6,279	7,298	7,767	2,383	7,082	
Brunei Darussalam	11	15	12	9	14	9	8	17	3		
Indonesia					20	21					
India	97	11	136	121	187	157					
China, People's Republic of	6	3	5	11	6	10	12	17			
Other Destinations											
Mauritius	273	382	149	196	250	140	195	91	31	0	
Romania				128	139	225	482	2,315		3,002	

Table A2.2 *continued*

	Thailand										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gulf Cooperation Council countries											
United Arab Emirates	7,245	5,495	5,038	4,623	4,014	3,270	2,326	1,931	541	479	1,261
Saudi Arabia	517	509	446	36	358	297	220	199	40	15	88
Oman	298	280	260	245	370	288	295	306	75	66	169
Kuwait	1,792	1,729	1,626	2,448	1,265	1,703	1,917	1,391	189	51	442
Bahrain	1,106	969	888	853	904	807	641	601	148	72	244
Qatar	2,623	2,392	2,449	2,273	1,562	904	554	482	111	131	300
Other Middle East											
Jordan						13	17	16	3	2	206
Lebanon						42	35	33	5	6	7
Iraq									1		
Israel	5,126	8,393	7,618	7,144	8,629	7,494	8,260	9,122	2,547	6,081	9,417
Asia, OECD											
Japan	8,596	6,904	7,614	7,705	8,610	9,196	9,180	9,600	4,778	637	8,147
Korea, Republic of	10,393	11,758	9,835	189	12,609	12,609	12,476	12,529	3,130	3,249	8,571
Asia, non-OECD											
Singapore	11,864	10,728	8,191	7,265	5,843	5,399	4,553	3,819	1,078	1,189	3,064
Malaysia	4,441	3,852	3,237	3,318	3,263	7,141	8,182	7,919	3,185	1,324	4,402
Taipei,China	39,128	34,631	37,105	34,738	35,027	35,199	33,546	32,204	13,707	6,751	25,372
Thailand											
Hong Kong, China	2,533	2,225	2,209	2,185	2,160	2,296	2,028	1,770	36	240	836
Macau, China									61		
Maldives									45		
Brunei Darussalam	2,697	2,489	1,944	1,846	1,461	1,299	1,109	1,109	281	31	453
Indonesia	2,480	3,210	3,103	2,538	1,967	1,724	1,636	1,355	353	306	551
India	2,480	3,210	3,103	1,860	1,646	1,468	1,432	1,391	372	322	553
China, People's Republic of	923	1,169	725	405	261	398	287	231	36	5	6
Other Destinations											
Mauritius											
Romania									18		7

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Table A2.2 *continued*

	Viet Nam								
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gulf Cooperation Council countries									
United Arab Emirates	1,731	2,075	831	286	136				
Saudi Arabia	2,360	1,703	4,191	3,975	16			1,375	
Oman	154	25	57	86					
Kuwait	440	31	30	54	40	9			
Bahrain	11	16	9						
Qatar	105	206	850	455					
Other Middle East									
Jordan	20	0	0						
Lebanon									
Iraq									
Israel	210	141	484	268	250				
Asia, OECD									
Japan	8,775	9,686	19,766	27,010	39,938	54,504	68,737	82,703	38,891
Korea, Republic of	9,228	5,446	7,242	6,019	8,482	5,178	6,538	7,215	1,309
Asia, non-OECD									
Singapore	107	149	92	31	29				537
Malaysia	9,298	7,564	5,139	7,354	2,079	1,551	1,102	454	
Taipei,China	30,533	46,368	62,124	67,121	68,244	66,926	60,369	54,480	34,573
Thailand	0	0	0	0		0			
Hong Kong, China	0	0	0		11	0			
Macau, China								401	
Maldives									
Brunei Darussalam	74	18	0	0		0			
Indonesia	0	0	0	0		0			
India									
China, People's Republic of	0	4	0		7	0			594
Other Destinations									
Mauritius									
Romania								3,478	924

Table A2.2 *continued*

	Myanmar									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Gulf Cooperation Council countries										
United Arab Emirates	39	0	14	77	271	127	214	323	83	67
Saudi Arabia										
Oman										
Kuwait	1	0	0	0		0	0			
Bahrain										
Qatar	10	77	15	0	73	135	87	116	19	52
Other Middle East										
Jordan						0	296	1,115	164	227
Lebanon										
Iraq										
Israel										
Asia, OECD										
Japan	0	36	518	1,678	2,384	3,331	3,889	6,690	4,680	1,534
Korea, Republic of	3,669	4,003	4,482	4,475	5,731	5,676	6,105	4,756	738	28
Asia, non-OECD										
Singapore	452	791	501	431	707	355	504	467	86	1,348
Malaysia	26,921	25,905	25,892	35,022	33,920	3,305	24,773	78,781	10,636	27
Taipei,China										
Thailand	37,347	36,029	33,188	53,578	102,722	148,942	198,017	238,082	58,642	25
Hong Kong, China										
Macau, China						6	9	9	0	0
Maldives										
Brunei Darussalam										
Indonesia										
India										
China, People's Republic of										
Other Destinations										
Mauritius										
Romania										

Table A2.2 *continued*

	Cambodia								
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Gulf Cooperation Council countries									
United Arab Emirates									
Saudi Arabia									
Oman									
Kuwait									
Bahrain									
Qatar									
Other Middle East									
Jordan									
Lebanon									
Iraq									
Israel									
Asia, OECD									
Japan	102	111	518	1,399	1,562	2,280	3,002	3,945	3,109
Korea, Republic of	8,132	8,820	7,671	7,073	7,371	5,967	4,870	5,938	919
Asia, non-OECD									
Singapore	0	111	190	99	87	138	287	135	39
Malaysia	180	90	470	807	123	27	53	69	26
Taipei,China									
Thailand	26,390	13,468	15,839	16,163	76,433	87,909	60,333	57,823	18,625
Hong Kong, China									
Macau, China									
Maldives									
Brunei Darussalam									
Indonesia									
India									
China, People's Republic of					0	15			
Other Destinations									
Mauritius									
Romania									

OECD = Organisation for Economic Co-operation and Development.

Source: National sources.

Table A2.3: Migrant Remittance Inflows in Asian Economies, 2000–2022
($ million)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022e
Afghanistan	...	...	...	...	...	...	...	...	90	141	378	179	219	347	253	349	628	823	804	829	789	300	350
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	1,403	1,527	2,150
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	18,364	21,752	22,203	21,000
Bhutan	...	...	...	...	...	...	2	3	4	5	8	10	18	12	14	20	34	43	58	57	83	58	55
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	103	113	123	128	147	164	184	186	188	142	557	611	855	1,003	1,103	1,185	1,199	1,287	1,431	1,525	1,272	1,153	1,250
China, People's Republic of	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	53,000	51,000
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	2,110	2,644	4,100
Hong Kong, China	136	153	121	120	240	297	294	317	355	348	340	352	367	360	372	387	399	437	425	451	427	461	571
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	83,149	89,375	100,000
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	9,651	9,402	9,700
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	4,389	4,888	5,291	5,000
Kazakhstan	68	85	111	42	57	62	84	143	126	198	226	180	283	341	401	294	384	560	618	506	374	310	370
Korea, Republic 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	7,166	7,435	7,704	7,877
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	2,423	2,792	3,050
Lao People's Democratic Republic	1	1	1	1	1	1	4	6	18	38	42	110	203	170	188	189	189	243	240	297	232	224	200
Macau, China	...	...	47	48	53	53	55	54	52	48	47	48	47	49	37	40	28	25	23	22	19	19	17
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	1,597	1,427	1,565	1,620
Maldives	2	2	2	2	3	2	3	8	6	5	3	3	3	3	3	4	4	4	4	4	5	5	5
Mongolia	1	27	69	79	203	177	155	178	225	200	266	250	324	257	255	261	260	273	441	561	549	535	500
Myanmar	102	116	105	84	117	129	115	81	55	54	115	127	275	1,644	1,808	1,934	2,255	2,453	2,673	2,553	2,671	2,000	1,900
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	8,287	8,244	8,108	8,203	8,500
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	22,252	26,089	31,312	29,000
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	34,883	36,685	38,000
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	7,140	5,522	3,600
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	2,187	2,922	3,200
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	8,162	8,257	9,065	9,500
Turkmenistan	...	...	...	...	...	...	14	30	50	34	35	35	37	40	30	16	9	4	2	1	2	1	1
Uzbekistan	...	...	...	...	...	...	1,421	1,709	3,632	2,180	3,438	4,910	6,090	6,443	6,815	4,843	5,795	7,130	7,610	8,546	6,980	9,198	13,500
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	17,200	18,060	19,000
Total	35,417	39,479	48,394	58,787	61,906	91,076	109,009	138,019	174,532	169,833	194,831	226,065	241,142	252,120	266,018	266,812	259,871	276,568	301,620	315,276	310,221	321,238	334,666

Note: All numbers are in current $.
Source: World Bank.

Table A2.4: Net Migration Rate
(per 1,000 population)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Afghanistan	−50.2	−9.7	65.2	17.3	−10.5	10.4	2.5	−35.7	8.4	−2.1	−5.0	14.4
Azerbaijan	1.9	2.0	1.8	1.6	1.6	1.9	1.9	1.9	1.7	0.1	0.2	0.2
Bangladesh	−3.3	−2.6	−3.4	−3.9	−3.8	−5.1	−8.0	−6.4	−9.5	−5.0	−3.1	−2.3
Bhutan	10.4	10.0	9.8	9.6	8.6	2.7	−1.4	−1.8	−2.0	−1.8	−1.7	−1.3
Brunei Darussalam	5.0	4.6	4.3	3.9	3.5	3.2	2.8	2.3	1.8	1.5	1.2	−0.7
Cambodia	−0.4	−0.3	−0.3	−0.6	−0.5	−0.9	−0.8	−0.7	−2.5	−3.4	−3.0	−2.9
China, People's Republic of	−0.4	−0.4	−0.4	−0.4	−0.4	−0.4	−0.4	−0.3	−0.4	−0.3	−0.2	−0.1
Georgia	−31.2	−26.4	−14.3	−7.7	−7.6	−7.8	−8.0	−8.2	−8.3	−8.5	−6.4	−6.8
Hong Kong, China	9.1	4.8	3.2	2.7	1.5	0.0	1.8	4.5	3.8	3.0	1.5	3.5
India	−0.1	−0.2	−0.2	−0.2	−0.2	−0.5	−0.6	−0.6	−0.7	−0.7	−0.3	−0.2
Indonesia	−0.2	−0.3	−0.4	−0.4	−0.5	−0.4	−0.4	−0.4	−0.5	−0.4	−0.3	−0.2
Japan	0.7	0.7	0.8	0.9	1.1	1.2	1.3	1.3	1.2	1.2	1.2	1.1
Kazakhstan	−2.8	−1.9	−0.9	−0.2	0.6	1.5	2.2	0.8	0.1	0.5	1.4	0.9
Korea, Republic of	−1.6	−0.6	−0.3	−0.5	−0.7	−0.8	−0.6	−0.8	−0.4	0.1	1.2	5.3
Kyrgyz Republic	−4.3	−4.9	−5.0	−3.0	−3.4	−5.2	−5.9	−9.5	−7.0	−5.5	−9.5	−8.4
Lao People's Democratic Republic	−6.2	−6.1	−6.0	−6.4	−6.9	−4.1	−4.1	−4.4	−4.4	−4.5	−4.3	−4.3
Macau, China	9.6	15.1	25.4	25.1	24.5	23.6	23.0	22.2	21.6	21.0	20.2	16.2
Malaysia	7.6	8.5	9.4	9.2	9.7	9.5	9.5	9.2	7.9	6.9	4.0	4.0
Maldives	0.5	1.9	1.9	1.5	1.3	0.6	15.8	18.9	17.7	17.3	17.4	17.5
Mongolia	−4.4	−3.8	−3.3	−3.1	−3.2	−3.4	−4.2	−4.5	−4.4	−3.6	−3.2	−0.5
Myanmar	−2.3	−2.8	−3.2	−3.5	−3.6	−3.9	−3.9	−3.8	−3.7	−3.2	−2.4	−1.7
Nepal	−6.0	−6.0	−6.3	−7.1	−8.1	−9.0	−10.2	−10.5	−10.9	−11.1	−10.8	−12.7
Pakistan	6.1	2.2	−5.1	−3.5	−3.1	−3.6	−3.5	−3.1	−2.8	−1.8	−2.2	−4.5
Philippines	−1.6	−2.3	−2.4	−2.5	−2.2	−2.6	−2.7	−2.4	−2.1	−2.5	−1.9	−1.1
Singapore	9.8	7.8	5.5	4.7	3.7	18.7	33.8	32.2	30.4	28.9	21.3	13.8
Sri Lanka	−4.9	−0.8	−1.1	−1.1	−0.1	−1.9	−1.2	−1.0	−0.6	0.3	−1.3	−0.6
Tajikistan	−2.2	−3.1	−3.1	−3.4	−3.7	−4.0	−4.3	−4.6	−4.7	−4.9	−4.4	−3.9
Taipei,China	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	1.9	2.0	2.1	1.7	1.8	1.1	1.2	1.4	1.3	1.3	0.8	1.0
Timor-Leste	−14.3	−11.0	−10.9	−10.4	−6.1	−1.5	−1.6	−1.9	−3.1	−3.8	−1.5	−0.3
Turkmenistan	−2.1	−2.0	−1.8	−3.3	−1.9	−1.7	−1.9	−1.9	−1.9	−1.9	−1.8	−1.8
Uzbekistan	−2.7	−1.9	−1.9	−1.7	−1.5	−1.3	−1.1	−1.0	−0.9	−0.7	−0.7	−0.7
Viet Nam	−1.9	−2.0	−2.0	−1.9	−1.8	−1.7	−1.6	−1.4	−1.2	−0.2	−0.1	−0.1

Source: World Population Prospects: The 2022 Revision (UNDESA) https://population.un.org/wpp/ (accessed April 2023).

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Afghanistan	3.5	1.5	7.8	−8.3	−2.6	−1.3	−1.3	−0.2	4.3	−4.6	−1.6	−1.6
Azerbaijan	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.0	0.0
Bangladesh	−1.6	−1.3	−1.4	−1.8	−0.3	−1.1	−2.0	−2.1	−0.4	−1.0	−1.8	−1.8
Bhutan	−1.0	−1.0	−1.2	−1.6	−0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Brunei Darussalam	−0.8	−1.0	−1.1	−1.2	−1.3	−1.4	−1.5	−1.3	−0.9	−0.4	0.0	0.0
Cambodia	−3.0	−3.1	−3.2	−3.4	−2.6	−2.9	−3.2	−3.4	−1.4	−1.5	−1.8	−1.8
China, People's Republic of	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.2	−0.2	−0.0	−0.1	−0.2	−0.2
Georgia	−6.9	−7.2	−4.2	−3.5	−2.8	−2.1	−1.4	−1.4	−0.7	−0.7	−2.7	−2.7
Hong Kong, China	5.0	3.4	3.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7
India	−0.1	−0.2	−0.2	−0.4	0.1	−0.2	−0.4	−0.4	−0.0	−0.2	−0.3	−0.3
Indonesia	−0.2	−0.1	−0.1	−0.1	−0.1	−0.1	−0.1	−0.2	−0.1	−0.1	−0.2	−0.2
Japan	1.1	1.1	1.1	1.2	1.2	1.3	1.4	1.5	0.7	0.7	0.8	0.8
Kazakhstan	0.5	0.5	−0.4	−0.7	−0.4	−0.9	−1.7	−2.0	−0.7	−1.0	0.0	0.0
Korea, Republic of	5.6	5.8	5.9	5.2	2.0	2.2	2.3	2.1	0.0	0.8	0.6	0.6
Kyrgyz Republic	−7.3	−6.5	−5.6	−5.0	−4.2	−4.5	−4.9	−5.4	−2.2	−2.5	−1.5	−1.5
Lao People's Democratic Republic	−4.1	−3.8	−3.8	−1.9	−1.7	−1.5	−1.4	−1.4	−1.4	−1.4	−1.3	−1.3
Macau, China	10.6	10.2	10.0	10.6	11.2	12.2	12.7	13.0	12.6	5.9	7.2	7.1
Malaysia	3.8	3.4	3.1	2.6	3.1	2.5	1.9	1.9	1.7	1.4	1.4	1.4
Maldives	17.3	17.1	30.5	29.2	27.2	25.0	21.8	13.4	2.2	2.3	−15.2	−16.5
Mongolia	−0.8	−0.5	0.3	1.3	2.5	3.5	3.6	3.3	0.0	0.0	−0.3	−0.2
Myanmar	−1.2	−1.2	−1.5	−1.8	−1.7	−2.0	−2.2	−1.9	−1.2	−0.7	−0.6	−0.6
Nepal	−13.5	−13.5	−11.2	−8.0	−3.5	−2.8	−2.8	−2.4	10.5	9.9	−2.0	−2.0
Pakistan	−8.1	−9.2	−9.7	−10.2	−10.7	−7.3	−5.9	−5.3	−2.6	−2.0	−0.7	−0.7
Philippines	−1.6	−2.0	−2.3	0.1	0.8	0.3	−0.1	−0.2	−0.4	−0.7	−0.6	−0.6
Singapore	12.7	12.4	10.9	7.3	6.4	6.2	6.2	7.0	3.6	3.3	4.5	4.5
Sri Lanka	−4.6	−4.6	−4.6	−4.6	−4.6	−4.6	−4.5	−4.4	−4.2	−4.2	−3.5	−3.5
Tajikistan	−3.5	−3.1	−2.6	−2.2	−1.8	−1.5	−1.1	−0.8	−0.4	−0.4	−2.0	−2.0
Taipei,China	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	1.1	1.0	0.8	0.5	1.1	0.6	0.1	0.1	0.5	0.0	0.3	0.3
Timor-Leste	−0.7	−1.4	−1.3	−4.6	−4.5	−4.3	−4.2	−4.1	−2.7	−1.5	−3.7	−3.7
Turkmenistan	−1.8	−1.7	−1.7	−1.7	−1.6	−1.6	−1.6	−1.6	−0.7	−0.7	−0.6	−0.6
Uzbekistan	−0.7	−0.7	−0.7	−0.7	−1.1	−1.5	−1.8	−2.1	−1.2	−1.2	−0.6	−0.6
Viet Nam	−0.1	−0.1	−0.1	−0.1	−0.0	−0.0	−0.0	−0.0	−0.0	−0.0	−0.8	−0.8

Table A2.5: International Students in OECD Countries by Economy of Origin

	Number of international tertiary students enrolled			Of which at master's and doctoral level	As a percentage of total tertiary	Number of graduates at master's and doctoral level
	2019	2020	% change	2020	2020	2020
Afghanistan	9,101	9,931	9	4,028	41	651
Azerbaijan	24,618	27,375	11	7,811	29	1,403
Bangladesh	31,293	35,277	13	20,660	59	3,635
Bhutan	2,723	3,006	10	1,601	53	622
Brunei Darussalam	1,570	1,381	-12	239	17	142
Cambodia	4,466	4,823	8	1,592	33	719
China, People's Republic of	955,579	976,904	2	441,208	45	129,057
Georgia	5,493	5,636	3	2,456	44	554
Hong Kong, China	35,601	34,652	−3	6,690	19	2,963
India	390,187	436,269	12	252,571	58	51,576
Indonesia	39,778	40,721	2	13,540	33	4,842
Japan	29,501	29,710	1	9,591	32	2,031
Kazakhstan	12,710	14,497	14	5,046	35	1,249
Korea, Republic of	96,941	97,438	1	30,547	31	3,456
Kyrgyz Republic	3,777	4,030	7	1,205	30	238
Lao People's Democratic Republic	1,078	1,218	13	517	42	183
Malaysia	48,191	44,259	−8	8,527	19	3,558
Maldives	473	489	3	184	38	76
Mongolia	11,543	12,949	12	4,997	39	1,292
Myanmar	8,257	8,879	8	1,961	22	704
Nepal	78,441	81,060	3	21,108	26	7,496
Pakistan	43,778	46,185	5	25,607	55	6,351
Philippines	19,716	23,128	17	5,658	24	1,753
Singapore	21,839	20,099	−8	5,354	27	2,310
Sri Lanka	22,887	23,916	4	8,848	37	2,309
Tajikistan	1,478	1,606	9	481	30	96
Taipei,China	...	...	...	...	...	...
Thailand	26,925	26,461	− 2	11,366	43	4,555
Turkmenistan	18,228	18,765	3	1,084	6	139
Uzbekistan	11,271	15,423	37	3,640	24	651
Viet Nam	122,739	133,139	8	22,528	17	7,044
Total	**2,080,181**	**2,179,225**	**5**	**920,646**	**42**	**241,655**
Rest of world	2,120,455	2,209,339	4	987,771	45	255,064
Total	**4,200,637**	**4,388,564**	**4**	**1,908,417**	**43**	**496,719**
Share of Asia (%)	50	50		48		49

OECD = Organisation for Economic Co-operation and Development.

Note: Data for graduates in the United States are not available.

Source: OECD. Online Education Database. www.oecd.org/education/database.htm (accessed April 2023).

LABOR MIGRATION IN ASIA
CHANGING PROFILES AND PROCESSES

Labor Migration in Asia: Changing Profiles and Processes analyzes labor migration trends in Asia, taking into account the landscape of labor markets after the lifting of strict entry and cross-border controls imposed during the coronavirus disease (COVID-19) pandemic. The report highlights recent developments in labor migration and associated policy measures in major origin and destination economies, drawing upon case studies from selected economies.

Chapter 1 overviews regional trends, including in labor migration and remittance flows. Chapter 2 describes the new profile of labor demand in Gulf Cooperation Council countries and the implications for labor migration in Asia. Chapter 3 examines the role of digitalization in improving recruitment and emigration processes for migrant workers in India and Sri Lanka.

The report also provides up-to-date comparative statistics on labor migration flows in, to, and from Asia. Two statistical annexes offer detailed economy fact sheets and coverage of intra-Asia and cross-regional migration flows.

The report is based, in part, on policy maker and expert discussions during the "12th Annual ADBI–OECD–ILO Roundtable on Labor Migration: Recovering from COVID-19: What Does It Mean for Labor Migration in Asia?", cohosted by the Asian Development Bank Institute, the Organisation for Economic Co-operation and Development, and the International Labour Organization.

Asian Development Bank Institute

The Asian Development Bank Institute (ADBI) is the Tokyo-based think tank of the Asian Development Bank. ADBI provides demand-driven policy research, capacity building and training, and outreach to help developing countries in Asia and the Pacific practically address sustainability challenges, accelerate socioeconomic change, and realize more robust, inclusive, and sustainable growth.

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Organisation for Economic Co-operation and Development

The OECD provides a forum in which governments work together to seek solutions to common problems, share experiences, and identify best practices to promote better policies for better lives. The OECD supports policy makers in identifying challenges and addressing them through appropriate policies. It is also one of the world's largest resources of comparable statistical data on economics, trade, employment, education, health, social issues, migration, the environment, and many other fields. The OECD includes 38 member countries and collaborates with more than 100 other economies.

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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 overarching 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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