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Asia–Pacific Employment and Social Outlook

2022 Rethinking sectoral strategies for a human-centred future of work

Asia-Pacific Employment and Social Outlook 2022

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Foreword

There is a hustle and bustle in most areas of Asia and the Pacific again after two years of quiet streets and limited mobility. Tourists are back, restaurants and shops are open and traffic jams in urban areas have resumed, with cars, buses, taxis and motorbikes full of daily commuters, school kids and deliveries. Look closer though and you will spot shops that remain boarded up, many "for sale" signs on buildings, more street sleepers than usual and an increased number of street protests – all visible signs that the region has not yet fully bounced back from the blow of the COVID-19 pandemic.

The limited recovery is further reflected in the labour market statistics presented in this report. This third edition of the biennial *Asia–Pacific Employment and Social Outlook* shows that the number of persons working in the region in 2021 had not yet surpassed the number of workers in 2019. The number of persons remaining outside the labour market remained inflated as well. The COVID-19 crisis stands out in comparison to previous crises that impacted the region, namely the Asian financial crisis of 1997–98 and the global financial crisis of 2007–09, as the only one to disrupt the rising trend in employment numbers at the regional level. And let us not forget the loss in working hours and associated income losses experienced during the COVID-19 crisis that, added to the loss of jobs give a fuller depiction of the impact felt.

The report discusses where labour markets are recovering, even if now confronted by a barrage of new challenges like inflation and geopolitical tensions that have created headwinds to employment-friendly macroeconomic policies and enterprise resilience. It makes a first-time assessment of regional sectoral estimates to highlight which sectors are growing as sources of jobs, which are shrinking and which harbour opportunities for "decent work".

One thing that I find especially valuable about this edition of the Outlook is its reminder of the continued dominance of the "big" sources of labour income in the region, these being agriculture, manufacturing and wholesale and retail trade, where 60 per cent of the region's workforce is engaged. On average, jobs in these sectors are more informal than formal, more low skill than high skill and more likely to see workers left without social protection or job security. The limited scope for decent work in these sectors reflects in part the constrained capacity of labour market institutions to cover enterprises and workers within all industrial sectors equally in the national framework of labour protection and employment policies. It also has to do with the challenges that workers and micro and small enterprises in these sectors experience to organize themselves for effective collective bargaining.

Knowing this gives us a clear starting point for action in pursuit of a human-centred recovery that is inclusive, sustainable and resilient in the Asia and Pacific region. The International Labour Organization stands ready to apply all the tools at our disposal to work with governments as well as workers' and employers' organizations to strengthen and expand labour market governance for targeted support to the workers and enterprises in the large sectors. Transforming work into decent work within all sectors, but especially those showing the largest decent work deficits, will bring inclusive growth to Asia and the Pacific and set the region back on track to a human-centred future of work.

Chihoko Asada-Miyakawa
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Acknowledgements

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The foundation of the report is labour market information. We extend great appreciation to colleagues in the ILO Statistics Department and the Research Department who diligently cull, standardize and disseminate country-level labour statistics and design and run the estimation models that generate subregional and regional estimates. Stefan Kühn of the ILO Research Department, in coordination with Christian Viegelahn, was instrumental in the development of the model to produce the sectoral estimates. We also thank David Bescond, Roger Gomis, Tite Habiyakare, Steven Kapsos, Archival Mahajan, Quentin Mathys, Yves Perardel and Mabelin Villarreal-Fuentes for their tireless efforts in supporting the production of statistics.

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Abbreviations

APEC	Asia–Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
COVID-19	coronavirus disease
GDP	gross domestic product
ILO	International Labour Organization
LFS	labour force survey
MSMEs	micro, small and medium-sized enterprises
NEET	not in employment, education or training
OECD	Organisation for Economic Co-operation and Development
UNIDO	United Nations Industrial Development Organization

Unless specified, all $ references refer to United States dollars.

Executive summary

Labour markets in Asia and the Pacific have only partially recovered from the COVID-19 crisis.

It has been a few rough years for governments, workers and enterprises in the Asia–Pacific region. In the two years since the 2020 edition of this report, all countries in the region continued their struggle against the global pandemic and its related economic fallout. Some countries are also reeling from various political, social and environmental crises. In the reality of continuing socio-economic uncertainties, with high inflation rates threatening millions of livelihoods across the region, countries are facing an uphill battle in their endeavour to progress towards the "human-centred recovery that is inclusive, sustainable and resilient", to which they had pledged in their adoption of a 2021 Global Call to Action by the International Labour Organization (ILO). [1]

Labour market recovery in the region lags behind global levels. Job growth did occur in 2021 and 2022, recovering from the 3.1 per cent drop in employment in 2020. By 2022, employment numbers in the Asia–Pacific region were 2.0 per cent above the pre-crisis level of 2019. On the surface, the employment trends look positive. Digging deeper, there remain numerous signs that the region's labour market is not yet back on its pre-crisis track.

- First, while employment growth was again positive, the employment-to-population ratio in 2022 remained still slightly below pre-crisis trend, at 56.2 per cent in 2022 from 56.9 per cent in 2019.
- Second, compared to where job numbers would be in Asia and the Pacific had the disruption of the COVID-19 crisis never happened, there is a continued jobs gap of 22 million (1.1 per cent) in 2022. The jobs gap is projected to increase again to 26 million (1.4 per cent) in 2023 given the headwinds to growth foreseen in current geopolitical global and regional context.
- Third, the aggregate hours of work in the region was not yet back to pre-crisis levels. The working-hour losses in the first three quarters of 2022 compared to the fourth quarter of 2019 amounted to an estimated 1.5 per cent (1.9 per cent for men and 0.5 per cent for women).
- Fourth, at nearly 105 million, the regional unemployment number was still 12 per cent higher in 2022 than in 2019 and the regional unemployment rate was still 0.5 percentage points above the 2019 rate, at 5.2 per cent.
- Fifth, the number of persons outside the labour force remains inflated above the pre-crisis level for men and women, youth and adult and across all subregions.
- Sixth, the gradual decline in the number of persons in informal employment at the regional level through 2019 was reversed during the crisis, as was the decline in vulnerable employment. As a result, the slow decline in the informal employment rate and vulnerable employment rate has stalled.

The sectoral distribution of employment in the region highlights the continued dominance of traditional sectors.

The three largest sectors in terms of employment in the Asia–Pacific region are agriculture, forestry and fishing; manufacturing; and wholesale and retail trade. These sectors together accounted for 1.1 billion workers in 2021, or 60 per cent of the region's 1.9 billion workforce.

These sectors are where the majority of men and women workers earn their labour income (plus the construction sector for men). But they are also sectors in which labour productivity [2] often remains low and that typically do not offer decent wages, good working conditions or job and income security. Most jobs

[1] ILO constituents adopted the "Global call to action for a human-centred recovery from the COVID-19 crisis that is inclusive, sustainable and resilient" at the 109th International Labour Conference in June 2021.

[2] Measured as value added per person employed.

in the dominant employment sectors are also not covered by national social protection systems. In other words, these are not the sectors that generate positive decent work outcomes. Little has changed in terms of the dominant shares of work in low-productivity sectors and associated decent work deficits despite half a century of economic growth. In fact, where some progress was seen in increasing shares of formal employment, declining working poverty shares and other signals of decent work over the three decades of data availability, such progress was seen to stall or even reverse during the COVID-19 crisis.

The gap between the sectors with the largest number of workers and the sectors that experience the highest job growth rates over time is reminiscent of the region's labour market duality. Various "modern" sectors that absorb higher-skilled workers, like information technology (IT) and business services, have expanded their workforces at a rapid pace over the past few decades. Regardless, as a share of total employment, employment in these so-called modern sectors remains low. As an example, the region's fastest growing sector in terms of employment growth over time was the IT and other information services sector. Employment numbers in the sector grew 7.2 per cent annually between 1991 and 2021. Yet only 9.4 million persons worked in the sector in 2021, corresponding to 0.5 per cent of total employment, and three quarters of the 8 million jobs gained over time went to men. Compare this to the wholesale and retail trade sector, which added 166 million workers over the 1991–2021 period and employed 277 million men and women in the region in 2021.

The changing composition of sectoral employment favours men over women in terms of decent work opportunities.

Like the IT sector, most of the other sectors of high employment growth also benefited men workers over women workers. Only one of the top ten sectors of employment growth in the Asia–Pacific region favoured employment of women, the accommodation and food service activities, where 55 per cent of added jobs between 1991 and 2021 went to women.

Among all sectors examined in the three-decade period of 1991–2021, only five experienced higher employment gains for women than men.[3] With the segregation of men into sectors that offer higher wage potential (like IT) and women remaining in lower-paying sectors (accommodation and food service activities, for example), progress on closing the gender wage gaps within many countries has been stalled. Making progress towards wage equity will require battling it from several fronts: (i) promoting pay equity at the enterprise level in all sectors; (ii) encouraging women to work in higher-paying sectors and occupations; (iii) educating women in fields with higher wage potential (like IT); and (iv) overcoming norms of discrimination on the hiring of women in the male-dominant sectors.

The Asia–Pacific region lags in its achievement of decent work objectives; this is true in booming times and through crises.

As economies and labour markets in all regions struggle to get back on track after experiencing the most significant setbacks since the Second World War, it is important to consider what "on track" means and whether it is the right track for the longer-run transformation of countries. The decades preceding the COVID-19 crisis saw sizable economic growth rates in many Asian countries but shrinking labour income shares and only limited gains on decent work outcomes. Economic growth in the region has linked to the creation of formal jobs and, to a certain degree, wage employment. But it has not linked to the transformation of informal to formal employment for workers already in that status nor to the betterment of decent work outcomes for the majority of the region's workers. The challenge moving forward will be to increase and sustain public investment in labour market institutions to achieve decent work outcomes in all sectors, but especially those where the majority of people work.

Continued fiscal support is required to put labour market recovery on more solid ground.

The experience of the COVID-19 crisis raised the red flag on many of the lingering deficiencies and shifted certain world-of-work issues towards the top of government priority lists for accelerated action. For instance, the crisis increased awareness of the importance of social protection systems and enterprise support and

[3] Annex 3 explains the methodology for classification and analysis of sectoral employment.

the critical role of workers' safety and health in business continuity. Recognizing the lessons of the crisis response and sustaining the heightened investment in the policy areas needed to generate a human-centred recovery will be challenging for the region moving forward in the context of new crises and inflation that have come on the tail of COVID-19.

Because consumers in all countries will need continuing fiscal support to offset the blow to their cost of living, the hope is that governments will continue to engage in targeted economic stimulus and fiscal supports. In situations in which demand cannot be boosted through increased government spending, progressive wage policies facilitated through social dialogue will take on added importance with their capacity to sustain consumption levels.

Beyond recovery, to transform inclusive growth in Asia and the Pacific, governments will need to elevate labour market institutions and empower workers' and employers' groups, especially in key sectors.

The lingering decent work deficits, including gender gaps, the stubbornly high rates of informal employment and weak labour relations have dragged down the development trajectories of the region's developing economies. With more than one billion workers in the region in agriculture, manufacturing and wholesale and retail trade, strengthening the institutions to improve decent work outcomes in these three sectors alone could elevate living standards and the spending power of a sizable (if not the majority) share of the region's population. Yet, making labour market institutions more effective remains a serious challenge for many developing countries, given the investment required, especially in the current context of global geopolitical and macroeconomic instability. Notwithstanding these difficulties, there are many recent innovations in areas of labour market governance that are being applied within particular sectors that can be scaled up in the longer term.

The pathway for a human-centred recovery in the short term and inclusive economic growth in the medium to long term is one whereby governments work together with workers' and employers' organizations to strengthen labour market institutions (the public institutions that set and enforce labour standards, that provide social protection, employment services and enterprise support and that facilitate social dialogue), particularly in the sectors with lower decent work outcomes. Specific recommendations to accelerate the achievement of decent work at sectoral levels in Asia and the Pacific, and in so doing, boosting the potential for inclusive growth in the region, include:

- support social upgrading in sectors through the design and enforcement of labour standards;
- support effective social dialogue;
- take action towards formalization;
- promote entrepreneurship and enterprise support for bottom-up growth;
- enforce good governance in labour migration;
- match supply and demand;
- target support to women-intensive sectors and increase opportunities for women to work in all sectors; and
- support digitalization to transform livelihoods within sectors.

1

1. Introduction

This third edition of the International Labour Organization's (ILO) Asia–Pacific Employment and Social Outlook presents the latest trends in employment and social conditions in the world's most populous region. It provides an update of the impact on workers and enterprises in the region since the COVID-19 pandemic began nearly three years prior. Beyond the crisis impact, the report examines the longer-term trends to generate a detailed picture of where and how people work in the region, focusing on the sectoral composition of employment and its relation to decent work and development outcomes. The report asks the question of how to ease the inequalities in work quality between sectors so that all workers and enterprises can thrive through good times and bad. In the context of increasing economic, political and environmental uncertainties, the Outlook argues that only by transforming how labour market institutions function will countries make a breakthrough to a human-centred future of work that links to inclusive and sustainable growth.

Structure of the report

Section 2 highlights the latest labour market trends in the region and the macroeconomic context in which such trends play out. The section examines key labour market indicators, such as employment, inactivity and unemployment at the regional and subregional levels, along with qualitative indicators that showcase continuing decent work deficits. It also looks at the lingering impacts on labour markets due to the COVID-19 crisis, geopolitical tensions and fiscal challenges and how the current economic uncertainties conspire with longer-term structural issues to exacerbate the impact on vulnerable population groups.

Section 3 makes use of new ILO sectoral employment estimates to generate a detailed picture of where workers in the Asia–Pacific region are concentrated (section 3.1) and which sectors figure higher on the spectrum of decent work (section 3.2). It also examines the shifts that have occurred within and among sectors over time (section 3.3) and how this relates to structural transformation (section 3.4). And it homes in on the COVID-19 impact at the sectoral level (section 3.5).

Section 4 highlights the policies and practices that can be applied at the sectoral level to promote decent work. It emphasizes how integrating decent work objectives into national development planning is essential for overcoming inequalities and for generating a human-centred recovery that is inclusive, sustainable and resilient.

A caution on heterogeneity and aggregation

There is no one "Asia" or "Pacific", and it is important to avoid the pitfalls of overgeneralizing for a region that encompasses nearly 40 countries and territories, each of which has its own history, culture, social norms, geography, global ties, natural resources and political institutions that determine, as both cause and effect, the circumstances of national labour markets.[4] Diversity prevails across subregions, income levels, between the sexes and more. To the extent possible, this report highlights the continuing variations among labour markets in the region.

Another caution is needed on the limitations of interpretation of the subregional and regional aggregates. Inevitably, the size of the economies of China and India result in their dominance in the subregional aggregation of statistics for East Asia and South Asia, respectively. Similarly, the Pacific as an aggregate is dominated by the large economies of Australia and New Zealand. The analysis throughout the report relies heavily on ILO modelled estimates of key labour market indicators. For information on the methodology for their production, readers are invited to turn to Appendix B of the 2022 *World Employment and Social Outlook* (ILO 2022a).[5]

[4] See Annex 1 for the ILO regional grouping for Asia and the Pacific and its subregions.

[5] The ILO *World Employment and Social Outlook: Trends* report is published annually. The next edition will be released in January 2023, with regional estimates and projections that match what is presented in this report.

2

2. The labour market situation in Asia and the Pacific

2.1 Macroeconomic context

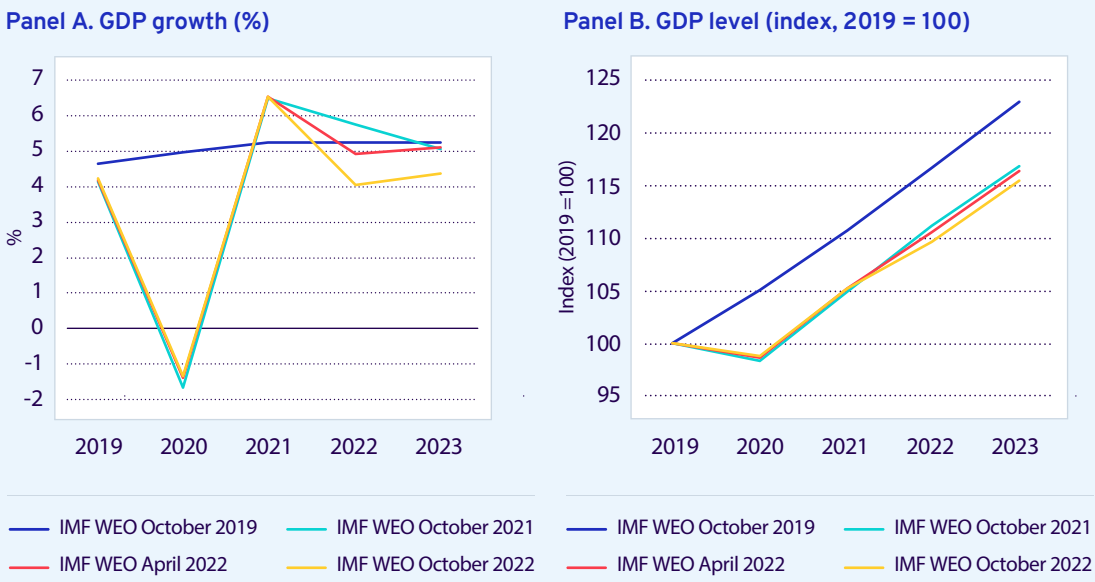
The COVID-19 crisis has left its mark on the regional economy, and recovery will be difficult within the current global context.

Nearly three years after the beginning of the COVID-19 pandemic, the global economy continues in crisis mode, facing a volatile and highly uncertain environment. The consequences of the Ukraine war are being felt around the globe with rising commodity prices, including the prices of energy, food and fertilizers, and inflation, affecting enterprises and consumers alike. The scarcity of energy in some regions of the world, such as Europe, may trigger a downward global economic spiral, depressing consumer demand and reducing trade, with ripple effects to other regions, including Asia and the Pacific.

Beyond the geopolitical challenges, the region is also strained by the rising global temperatures and sea levels and extreme weather events that are increasing the incidence of devastating natural disasters. Recent examples are the flooding in Pakistan and the heat wave that struck several provinces in China. The region is also not spared by economic, political or humanitarian crises, as Afghanistan, Myanmar and Sri Lanka demonstrate.

Economic activity in the region has not yet recovered from the shock brought about by the COVID-19 pandemic. The most recent International Monetary Fund projection for the regional gross domestic product (GDP) in 2022 is nearly 6 per cent below pre-pandemic expectations (figure 1). This gap is expected to remain unchanged in 2023, suggesting that the accumulation of crises and lingering global uncertainties are having long-lasting impacts, including severe structural impacts on the region's economies.

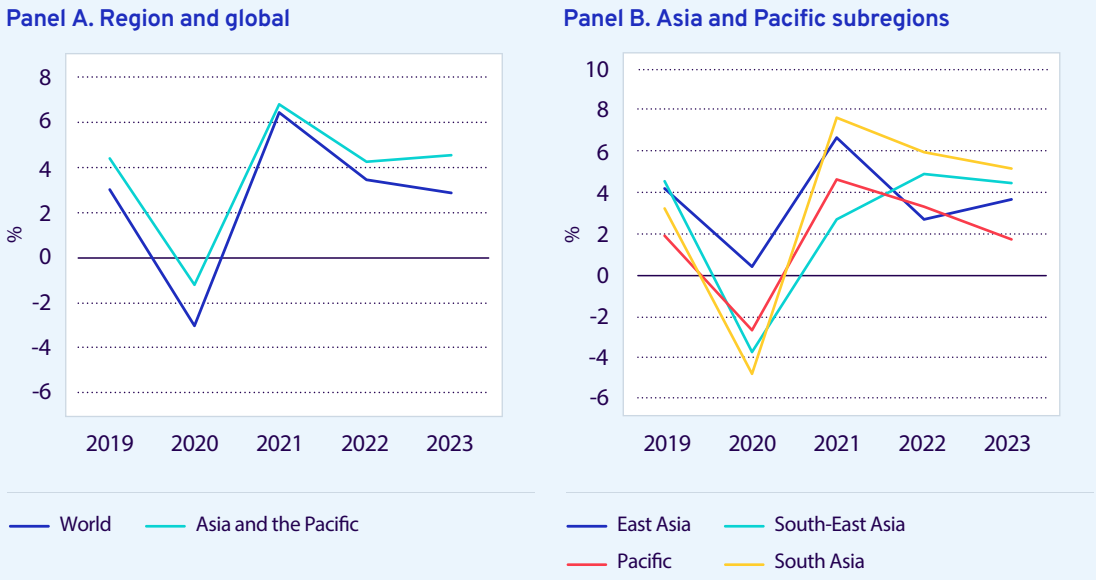
Figure 1. GDP estimates and projections, Asia and Pacific, 2019–23



Source: ILO calculations based on International Monetary Fund (IMF), World Economic Outlook (WEO) databases.

While the economic challenges are similar across all subregions of Asia and the Pacific, there are notable differences in the economic growth trajectories (figure 2). South Asia experienced the deepest dip in economic growth among all subregions in 2020; but it is also the subregion whose economic recovery has been strongest. East Asia was hit hard during the first weeks of the pandemic but did relatively well in the remainder of 2020 as well as in 2021. However, the locally concentrated but strict lockdown measures in China in response to COVID-19 cases in 2022 have contributed to a renewed low for economic growth in the subregion. South-East Asia was hardest hit by the pandemic in 2021, but there has been a relatively strong recovery in 2022 that is expected to continue through 2023. The Pacific saw economic growth above the pre-crisis levels in 2021, but that growth has since been moderate.

Figure 2. GDP growth, Asia and Pacific region and subregions, 2019–23

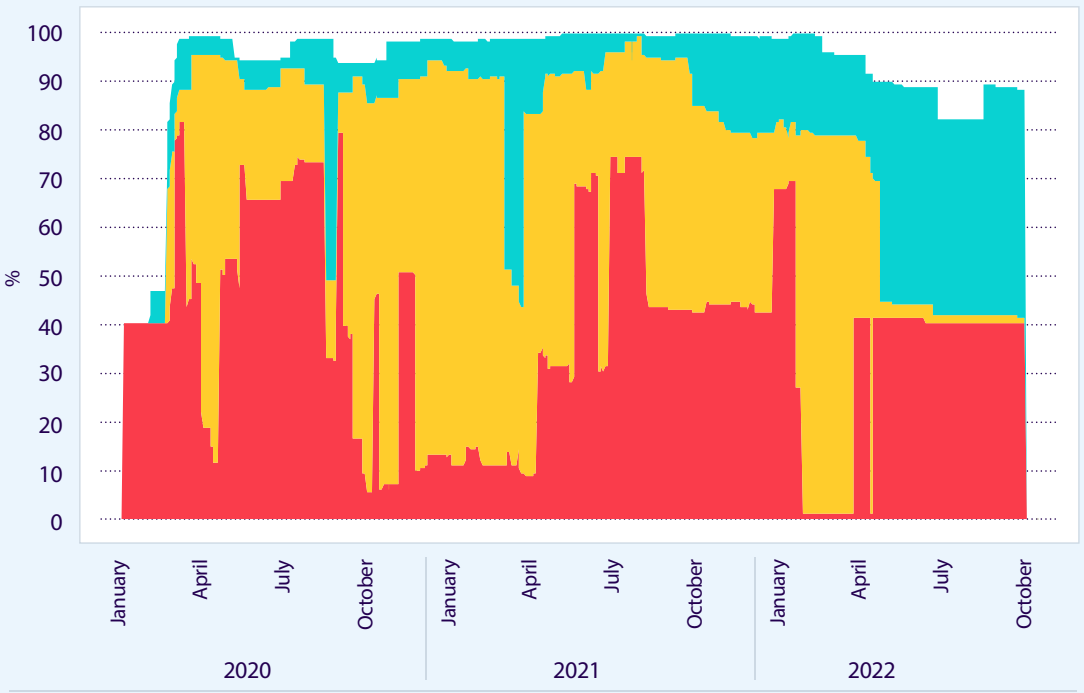


Source: ILO calculations based on IMF, World Economic Outlook, October 2022.

Despite some uncertainty about the future of COVID-19, most countries in the region have lifted or significantly eased pandemic restrictions.

Although COVID-19 infections continue, everyday life has largely normalized in most countries of the region and travel restrictions have eased, also owing to considerable progress with vaccinations. At the end of September 2022, China was the only country in the region to again close all but essential workplaces in some of its provinces and municipalities in the face of new COVID-19 infections. China alone accounted for the 40 per cent of workers located in a country with closures of all but essential workplaces in mid-2022 (figure 3). The situation is hence very different when compared with the peak of the pandemic (at the end of March 2020), when the share was 82 per cent.

Figure 3. Share of employed in countries with pandemic-related workplace closures, Asia and Pacific, January 2020–September 2022



Note: The share of workers in countries with required workplace closure for some sectors or categories of workers and countries with recommended workplace closure are stacked on top of the share of workers in countries with required workplace closure for all but essential workplaces.

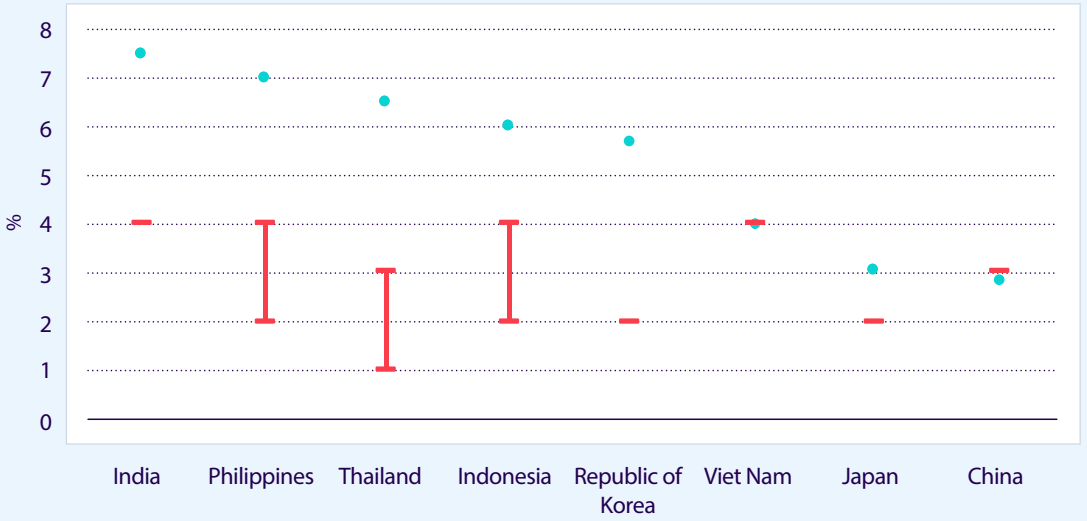
Source: ILO modelled estimates, November 2022; Oxford COVID-19 Government Response Tracker.

Rising inflation is the latest big challenge.

While the COVID-19 situation appears to be largely under control in most countries of the region, high and increasing inflation rates undermine the purchasing power of consumers and enterprises, thereby threatening livelihoods and hampering economic recovery. The release of pent-up demand following the successful implementation of vaccination programmes collided with persistent supply bottlenecks, exerting upward pressure on prices. The problem was then exacerbated by the situation in terms of increased food and energy prices that followed from the war in Ukraine. As central banks in some of the advanced economies try to contain inflation through strong monetary policy tightening, national currencies in the Asia–Pacific region have been depreciating against the US dollar, leading to higher inflation through imports.

In most of the major economies of the region, inflation has reached levels that exceed the target values or ranges set by the respective central banks by a considerable margin (figure 4). For example, Thailand recorded an inflation rate of 6.4 per cent in September 2022, which is far above the Bank of Thailand's target range of 1–3 per cent. Some governments in the region have put in place policy packages to help ease the cost-of-living pressures. Nonetheless, these packages cannot fully compensate for the increased cost of private consumption that households in the region are experiencing.

Figure 4. Annual inflation rates and inflation targets of central banks, selected Asian countries, September 2022

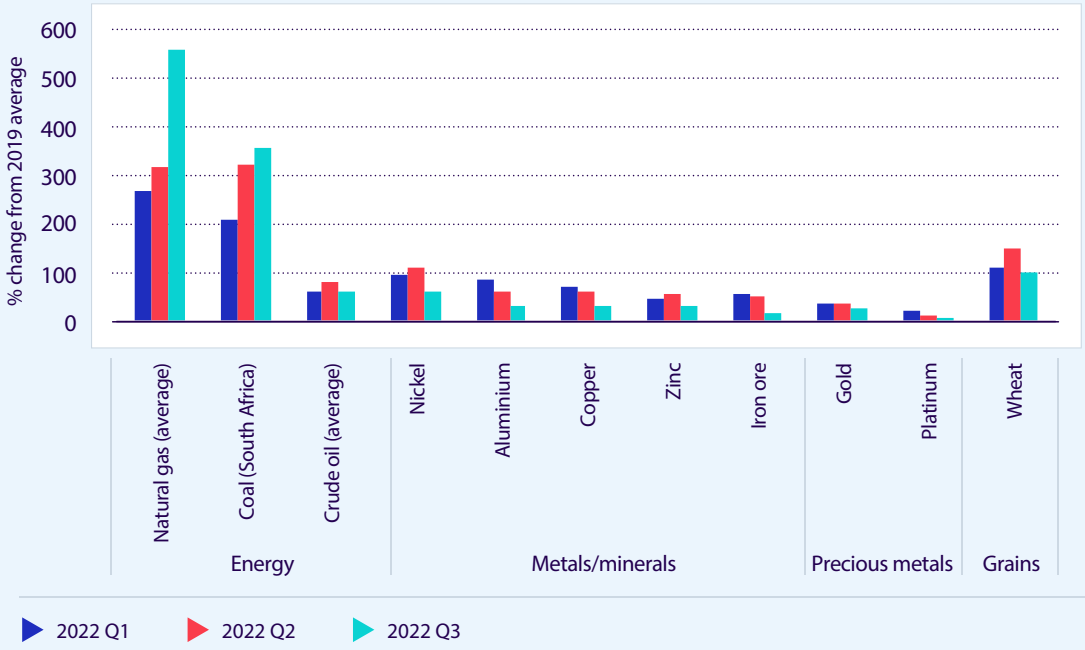


Source: Trading Economics (September 2022 inflation rates) and websites of central banks (target value or range).

High inflation is of concern to both consumers and enterprises operating in the region. As enterprises confront higher expenditure for the inputs necessary for their production, those with sufficient market power, mainly large enterprises, may pass on these higher input prices to consumers and even increase their profit margins. Micro, small and medium-sized enterprises (MSMEs), however, have less leeway to increase prices but face tighter credit constraints and fewer possibilities to diversify their activities.

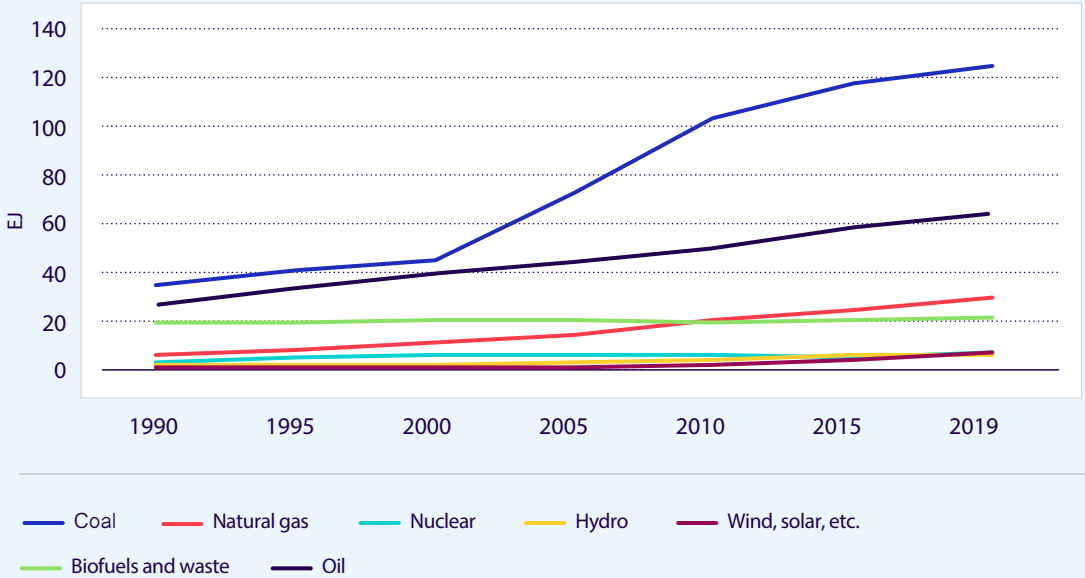
Energy and other commodities, such as metals, minerals and food, are inputs into the production of goods that enter the shopping basket of consumers. When commodity prices go up, consumer price inflation follows. Although pressure on the price of metals and minerals, such as nickel, aluminium or zinc, eased slightly in the third quarter of 2022, prices remained considerably higher relative to 2019 (figure 5). The prices of rare earths are also likely to remain high because demand continues to exceed supply, given that governments worldwide are moving towards increased investment in digitalization and renewable energies, for which rare earths are an indispensable input. Even more concerning is the spike in energy prices, with the international price of natural gas more than six times as high in the third quarter of 2022 as in 2019 and the price for coal and oil also having increased considerably. Overall, the high dependence of the region on energy supplied from coal, oil and natural gas is presenting tougher challenges due to environmental and economic considerations (figure 6). The countries in the region that are commodity exporters – for example, Australia and Malaysia in the case of natural gas – are likely to be in a stronger position to cushion the adverse impacts of inflation than the commodity importers, such as Japan, the Republic of Korea and Thailand in the case of natural gas.

Figure 5. Prices of selected commodities in 2022, percentage change from 2019



Source: World Bank Commodities Price Data, *The Pink Sheet*, 4 October 2022.

Figure 6. Total energy supply, by source, Asia and Pacific, 1990–2019



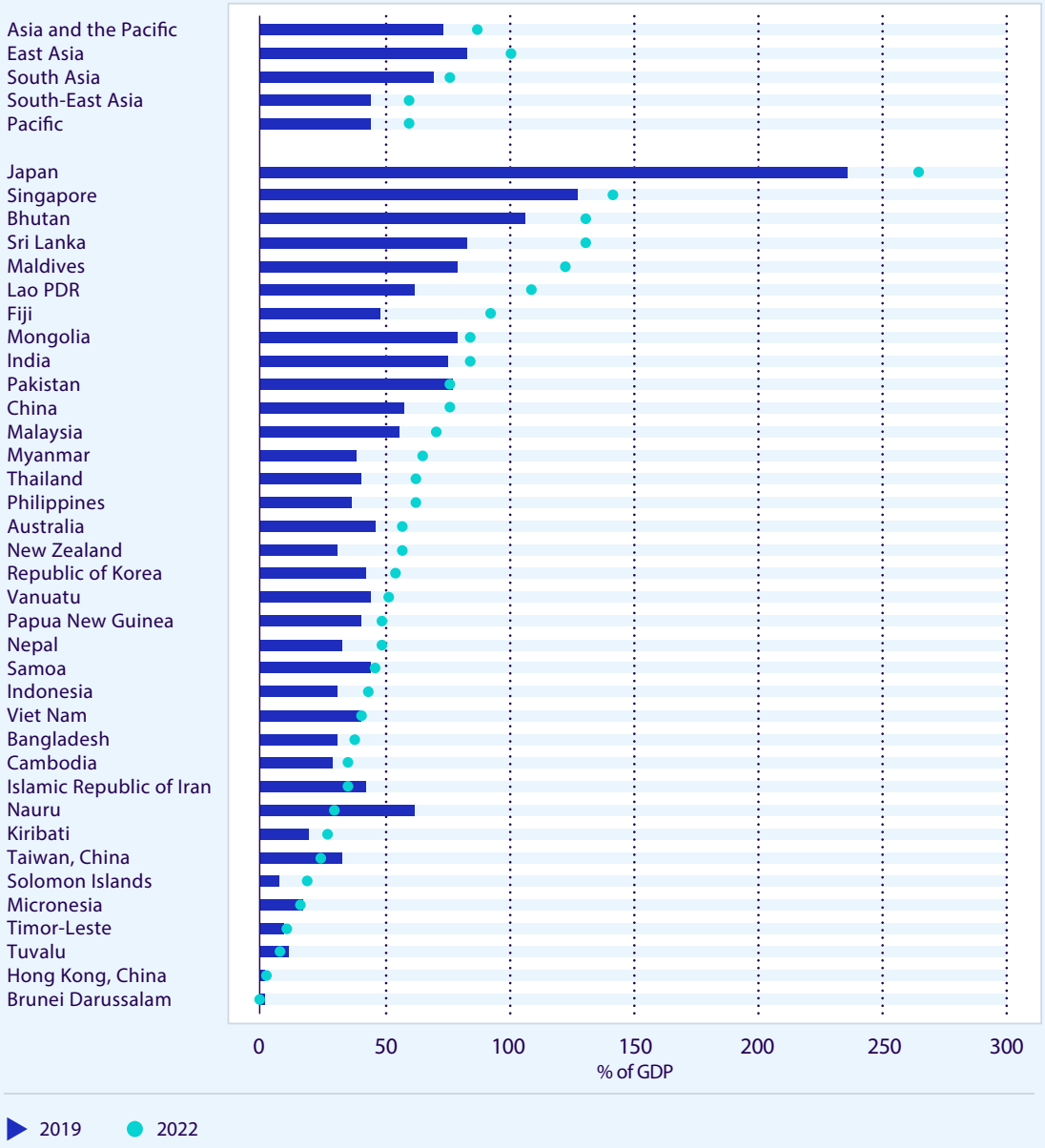
Note: EJ = exajoule.

Source: International Energy Agency, *World Energy Balances*, 2021 edition.

Greater government debt across the region may limit the scope for further fiscal policy.

Fiscal policy has been a central tool for governments during the COVID-19 crisis to support their economies and to prevent even harsher economic and social impacts. Although this was undoubtedly necessary to also save jobs and support the labour market, it has led to budget deficits and increased government debt throughout the region. In the case of Sri Lanka, it contributed in part to the current crisis. Only seven countries in the region have improved their general government debt-to-GDP ratio since 2019 (figure 7). That ratio for the whole of the Asia–Pacific region increased from 73 per cent in 2019 to more than 87 per cent in 2022. East Asia has had the largest increase in percentage points of the general government debt-to-GDP ratio, followed by South-East Asia, the Pacific, East Asia and South Asia. Even though many observers consider the current debt situation sustainable for most countries (see, for example, Ferrarini et al. 2022), the deterioration, when compared with pre-pandemic levels, raises debt and financial stability concerns in the event of more crises forthcoming.

Figure 7. General government gross debt, Asia and Pacific region, subregions and economies, 2019 and 2022 (percentage of GDP)

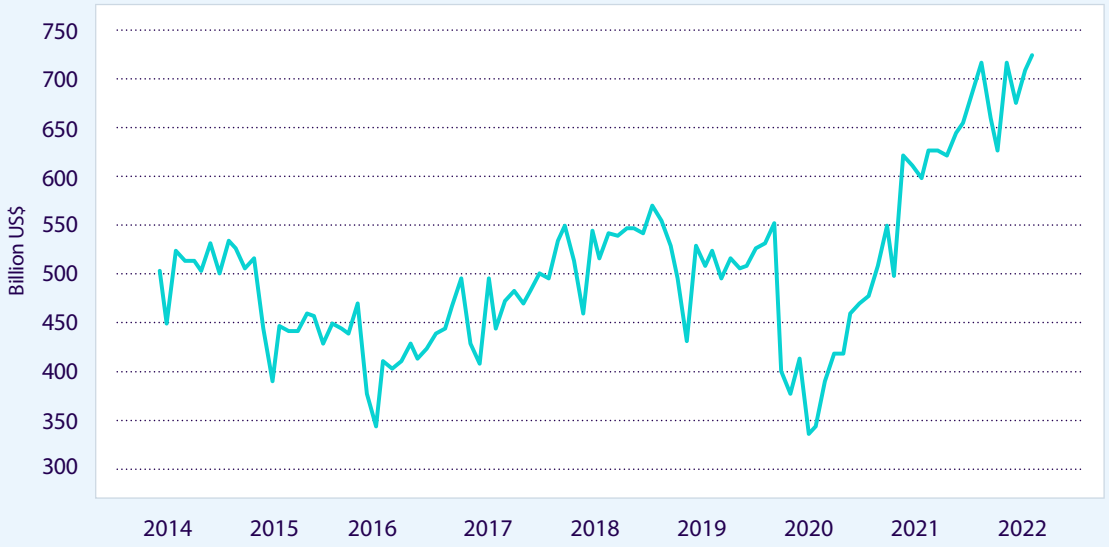


Source: IMF, *World Economic Outlook*, October 2022.

International trade has more recently been supportive of the recovery in the region.

The pandemic exposed vulnerabilities related to international trade and, more specifically, the lack of diversification in some economies. More recently, trade has been supportive of the recovery in economies of the region. As consumer demand at the global level began to increase again from early 2021, the region benefited from its strong manufacturing base. Its monthly export of goods now stands at $726 billion, which is 32 per cent above the pre-pandemic December 2019 level (figure 8). There remains, however, a great deal of uncertainty regarding the future of global consumer demand. The weakening of global economic growth in the aftermath of the Ukraine war will undoubtedly hurt demand for exports from Asia and the Pacific, with consequences for enterprises and workers. It is thus an uncertain macroeconomic environment for the region's labour markets at the moment and in the near future.

▶ **Figure 8. Monthly exports of goods from Asia and the Pacific, 2014–22**



Source: ILO calculations based on IMF, Direction of Trade Statistics, accessed 26 October 2022.

Fiscal pressures are mounting and threaten the continuity of support measures.

With the health aspects of the COVID-19 crisis ebbing and borders mostly reopened, countries by mid-2022 were being pressured to ease the heightened levels of fiscal expenditure that had helped to support some enterprises, safeguard jobs and shore up household income through the difficult times. Some countries will have no choice but to do so as public debt reaches a dangerous level. Yet, as new crises and inflation that have come on the tail of COVID-19 contribute to keeping the economic and labour market recovery at bay, the need for economic stimulus, including labour market policies, continues even as the capacity to sustain the level of support wanes.

Because consumers in all countries will need continuing fiscal support to offset the blow to their cost of living, governments are likely to engage in targeted economic stimulus and fiscal supports in the near future while reeling back the expanded level of fiscal expenditure seen at the height of the pandemic. In situations in which demand cannot be boosted through increased government spending, progressive wage policies facilitated through social dialogue will take on added importance with their capacity to sustain consumption levels.

2.2 Employment trends

Highlights

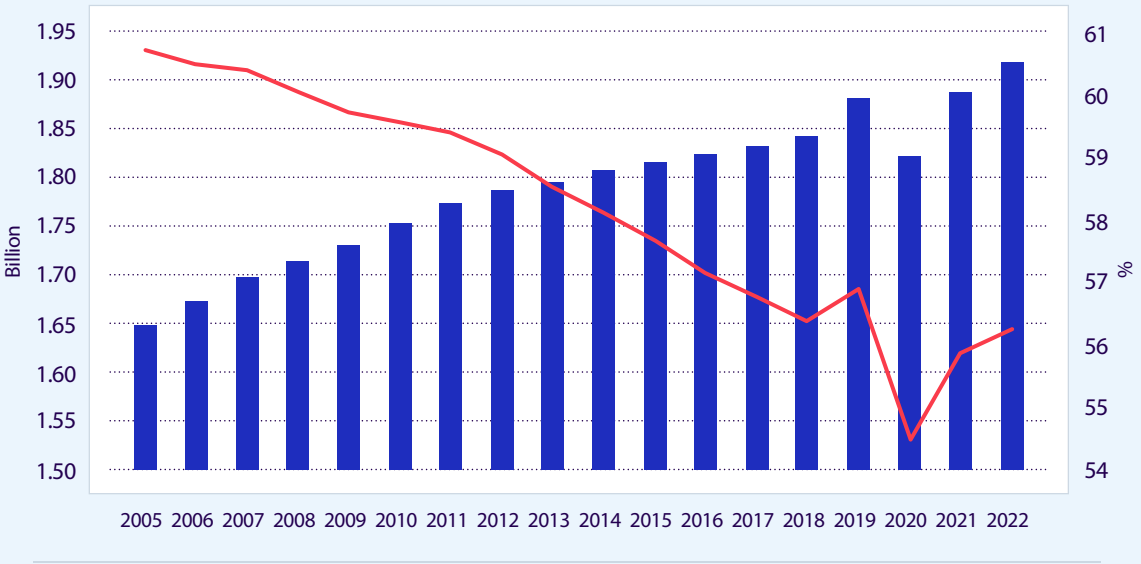
- Between 2019 and 2020, employment dropped by 3.1 per cent, with 58 million fewer persons in employment. Compared with the pre-crisis expectations of the employment trajectory, the actual jobs gap was 79 million.
- Jobs recovery in the region in 2022 lagged behind the global level. Job growth started again in 2021 and the number of persons employed exceeded the 2019 levels by a small amount (6 million). Employment growth gained traction so that by 2022, employment in the Asia–Pacific region was 2.0 per cent above the pre-crisis level of 2019. Global job recovery was higher at 2.7 per cent.
- Compared with the pre-crisis expectations of the employment trajectory, a jobs gap of 22 million for the whole region remained in 2022.
- By subregion, the decline in jobs in 2020 was largest in South Asia (3.7 per cent below the 2019 level), followed by East Asia (3.2 per cent), South-East Asia (1.6 per cent) and the Pacific (0.5 per cent). By 2022, all subregions had regained the employment losses of 2020 and were showing again positive employment growth over 2019. Yet, only in the Pacific was the employment-to-population ratio in 2022 above that of 2019.
- Initial job losses in 2020 were worse for women than men, and job recovery for women in 2021 lagged behind that of men. In 2022, the number of men in employment was 2.0 per cent more than the pre-crisis 2019 level compared to 1.9 per cent for employment of women.
- By 2022, the employment-to-population ratio partially recovered to pre-pandemic levels but remained 0.6 percentage points below 2019 levels, at 56.2 per cent.
- The employment-to-population ratio of women was 28 percentage points less than that of men (ratio of 42.3 for women and 69.9 for men).
- Working-hour losses in the first three quarters of 2022 amounted to an estimated 1.5 per cent (1.9 per cent for men and 0.5 per cent for women) compared to the fourth quarter of 2019. This is a considerable improvement from the 8.1 per cent of working hours lost in the region in 2020.

Job growth is slowly getting back on track, but not yet keeping pace to population growth.

The COVID-19 pandemic began in 2020 and endured over the course of 2021 and 2022. Virus outbreaks continue in the region, albeit with lesser economic fallout due to most governments opening their borders and adjusting to the circumstances of "living with COVID". The employment impact was the most severe in 2020, when mobility lockdowns were at their strictest in all countries. Between 2019 and 2020, employment dropped by 3.1 per cent, with a loss of nearly 58 million jobs and a considerable decline in the employment-to-population ratio, from 56.9 per cent to 54.5 per cent (figure 9).

Employment increased again in 2021 and surpassed the 2019 figure, albeit by a small number (adding 6 million jobs). Overall, employment in the Asia–Pacific region in 2022 surpassed the 2019 level by 2.0 per cent (37 million), which falls behind the global job recovery rate of 2.7 per cent. Comparing to the pre-COVID days, the employment-to-population ratio remained low at 55.8 per cent in 2021 but is estimated to increase again to 56.2 per cent in 2022, which is, however, still 0.6 percentage points below 2019 levels.

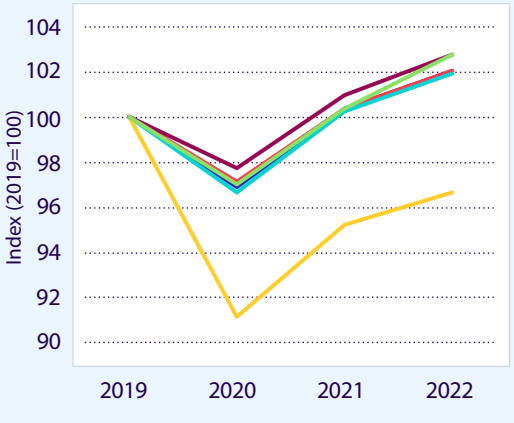
Figure 9. Total employment and employment-to-population ratio, Asia and Pacific, 2005–22



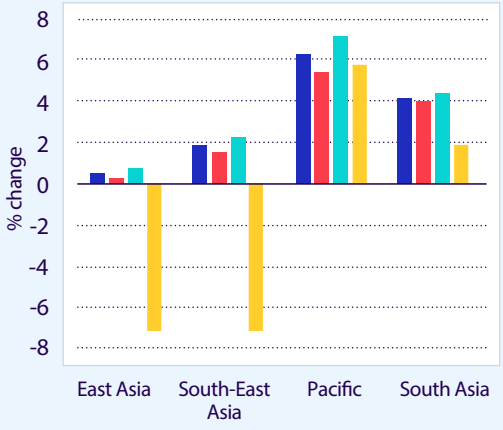
Note: See also Annex 2, figure A1 for the time series of employment and employment-to-population ratio for each subregion.
Source: ILO modelled estimates, November 2022, available in ILOSTAT.

Figure 10. Employment change, by sex and age group, Asia and Pacific region and subregions, 2019–22

Panel A. By sex and age group (2019 = 100)



Panel B. By subregion (% change)



Source: ILO modelled estimates, November 2022, available in ILOSTAT.

Not only were initial job losses in 2020 worse for women but their job gain through 2022 lagged behind the gain for men. Male employment declined by 2.9 per cent in 2020 compared to 3.3 per cent for female employment. The earlier job losses (in 2020 over 2019) were worse for men than women in all subregions except the Pacific, where the difference was marginal (not shown). An important reason for the stronger losses in women's employment is that many of the sectors where women workers are concentrated are those hardest hit by the crisis. Five of the ten sectors that experienced the sharpest job losses were those with high concentrations of women workers (see section 3.5). In terms of recovery, in 2022, the number of men in employment was 2.0 per cent more than the pre-crisis 2019 level. Employment of women grew by 1.9 per cent.

Overall, the crisis impact has had little impact on the persistent gender gap in employment in the Asia–Pacific region. In 2022, the employment-to-population ratio of women was 28 percentage points less than that of men (ratio of 42.3 for women and 69.9 for men). This represented an improvement of only 1 percentage point from the gender gap two decades prior, in 2002 (see Annex 2, figure A2). The employment-to-population ratio remains especially low for women in South Asia, at only 22.9 per cent in 2022. Hence the subregion's very large gender gap of 46 percentage points. But there is also a substantial gender gap in employment ratios South-East Asia (at 22 percentage points). In 2022, 53.7 per cent of women were working compared to 75.3 per cent of men.

Youth employment suffered the greatest shock with the number of young workers falling by nearly 10 per cent in 2020 and remaining still 3 per cent below the 2019 level in 2022 (figure 10, panel A). The largest hit to youth employment over the entirety of the COVID-19 crisis (2019 to 2022) was in East Asia and South-East Asia, both at a negative 7.2 per cent (figure 10, panel B). In the Pacific and South Asia, the number of young persons in employment had recovered from the crisis drop by 2022.

By subregion, the decline in jobs in 2020 was largest in South Asia (at 3.7 per cent below the 2019 level), followed by East Asia (at 3.2 per cent), South-East Asia (at 1.6 per cent) and the Pacific (at 0.5 per cent). By 2022, all subregions had regained the employment losses of 2020 and were showing again positive employment growth over 2019 (figure 10, panel B and Annex 2, figure A1). Emerging from the COVID-19 crisis, the jobs recovery through 2022 was strongest in the Pacific and South Asia, followed by South-East Asia. In East Asia, employment numbers in 2022 were only 0.4 per cent above those of 2019. It is important to note that even if the number of jobs surpass the 2019 level, still employment gains are not keeping pace with population growth. Only in the Pacific was the employment-to-population ratio in 2022 above that of 2019 (not shown).

▶ Box 1. Good news or data revisions? Understanding changes in the ILO November 2022 modelled estimates

The source of global and regional labour market estimates produced by the ILO and analysed here and in ILO major publications like the *World Employment and Social Outlook: Trends* (WESO Trends) and *ILO Monitor on the World of Work* is the ILO modelled estimates from the ILOSTAT database. These estimates are based mainly on labour force survey data. The estimation and projection methodology is described annually in Appendix B of the WESO Trends reports and in the ILOSTAT methodological note on the ILO modelled estimates. This Asia–Pacific report mostly relies on the latest ILO modelled estimates dated November 2022, which are the same estimates that will serve as the basis for the next WESO Trends report, forthcoming in January 2023.

Over the course of 2022, important changes to the input files of the ILO modelled estimates were included that resulted in some significant changes in the Asia–Pacific regional aggregates compared to what was published in earlier versions. Changes in the historical series are made with every model update for reasons elaborated on in Appendix B of ILO (2022a). In this update, the main reasons for revisions in some of the historical data are:

- the substantial number of new input data, with most added observations coming from emerging and developing economies;
- a change in the historical data series for India; and
- a slight adjustment in the modelling methodology.

The adjustment of the data source for India has an impact on employment estimates for South Asia and Asia–Pacific as a whole. It is, to a large extent, responsible for the 2018–19 jump in regional employment and the employment-to-population ratio (figure 9). These data may look like "good news", showcasing a positive trend in employment creation in that year, but the reality is that the trend reflects a sharp increase in female self-employment in rural areas of India, as captured in the Periodic Labour Force Survey of 2019-20. Some of the reasons behind the substantially different results could be methodological, such as an improvement in the sequencing of survey questions to better capture the own production activities of women in rural areas. Regardless, such "good news" should be carefully qualified with an understanding of the lower tiers of employment quality that the employment gains reflect.

Source: S. Chakraborty, P. Chatterjee and M. Nikore, "Why the Rise in Workforce Participation During the Pandemic Points to Distress Employment", The Wire, undated.

The number of jobs has recovered in Asia and the Pacific, but working hours are still fewer than the pre-COVID-19 period.

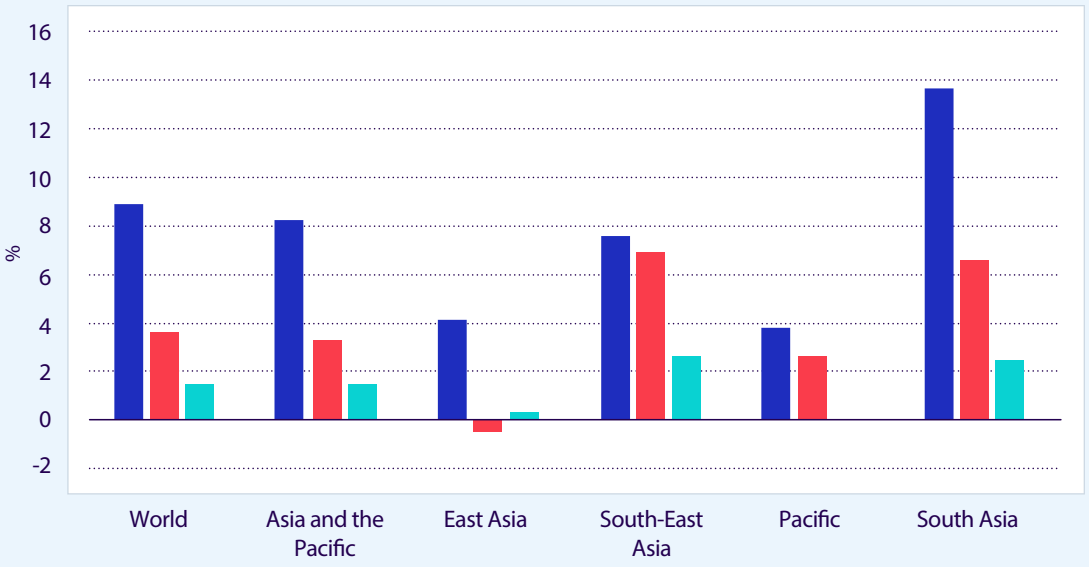
The crisis impact on jobs is underestimated when looking at employment numbers alone because it ignores the significant impact on the number of hours that people worked during the pandemic. By latest estimates, the number of working hours adjusted for population in the Asia–Pacific region declined in 2020 by 8.1 per cent (8.2 per cent for men and 7.8 per cent for women) when compared to the pre-crisis situation in the fourth quarter of 2019 (figure 11).[6] This was equivalent to the working time of approximately 143 million full-time jobs (96 million for men and 47 million for women), assuming a 48-hour working week. In 2021, working hours remained below the level of fourth quarter 2019, at 3.2 per cent (3.4 per cent for men and 2.8 per cent for women). This was equivalent to a loss of 57 million full-time jobs (40 million for men and 17 million for women). Also in 2022 (first three quarters), total working hours in the region remained below the pre-crisis level. Working-hour losses in the first three quarters of 2022 amounted to an estimated 1.5 per cent (1.9 per cent for men and 0.5 per cent for women).

The greatest loss of working hours in 2020 was experienced in South Asia (at 13.6 per cent), followed by South-East Asia (at 7.4 per cent), East Asia (at 4.1 per cent) and the Pacific (at 3.7 per cent). The pattern shifted

[6] Population adjustment is necessary to provide a comprehensive and internationally comparable measure of work activity. The figures represent the relative difference in the ratio of hours worked to population aged 15–64 between the period of reporting and the fourth quarter of 2019.

in 2021, when the on again–off again lockdowns with ensuing infection waves impacted South-East Asia to the greatest extent and resulted in a loss of 6.8 per cent of working hours. This was followed by South Asia (at 6.5 per cent). Also in the first three quarters of 2022, the continued impact on working hour losses was strongest in South-East Asia (at 2.5 per cent), followed by South Asia (at 2.4 per cent). Working hour losses were influenced by workplace closures but also by the amenability of jobs and those performing such jobs to working remotely (see box 2).

Figure 11. Working hour losses relative to the 2019 fourth quarter level, Asia and Pacific region and subregions, 2020–22 (percentage)



Note: Adjusted for population aged 15–64. Figures for the first three quarters of 2022 represent an average of the quarterly estimates for the respective quarters. For methodological details, see the technical annex in ILO 2022c and Gomis et al. 2022.

Source: ILO modelled estimates, November 2022, available in ILOSTAT.

At the country level, the mean weekly hours worked per employed person in 2020 was 2.2 hours less in the Islamic Republic of Iran, 2.9 hours less in Mongolia, 2 hours less in Thailand but 6.1 hours less in the Philippines. The drop in working hours during the pandemic was primarily driven by underemployment but was also influenced by the stoppage of overtime hours, with implications for low-wage workers who often rely on overtime premium payments as part of their income.

▶ Box 2. COVID-19 and telework in Asia and the Pacific

The ability to work remotely during the pandemic preserved millions of jobs and enabled business continuity for many enterprises. One study indicated that telework was used by 40 per cent of the workforce in Malaysia, the Philippines and the Republic of Korea during the first wave of the COVID-19 pandemic.[1] Another study found that at least 200 million workers in China were working remotely by the end of the lunar New Year holiday in 2020.[2] The teleworking rate reached 28 per cent in Japan in May 2020 and 47 per cent in Australia in 2020 (OECD 2021).

Through various studies, workers in the region have expressed their appreciation for the flexibility of telework over the course of the pandemic, in particular, the time gained by avoiding the daily commute.[3] There is an evident expectation that working arrangements should adapt to a "new normal" in a post-pandemic setting, with increased flexibility to work remotely or in hybrid work arrangements. Adrjan et al. (2021) presents evidence that the easing of the pandemic has not significantly reduced the advertising of teleworking in new job postings, hinting that the increased prevalence of teleworking is a trend that is here to stay.[4]

There are negative ramifications of telework, including the blurring of boundaries between work and personal life, the possibility of working excessive hours and the fact that it is not an option for all occupations and sectors (ILO 2021a). The governance of remote telework has taken on increased importance as a result of the crisis and with the increased recognition of the need to ensure safe and healthy working environments in relation to physical and mental well-being (WHO and ILO 2021a). A few countries in the region have issued guidelines on remote telework or policies for specific sectors[5] and are applying new practices within the realm of the public sector. But official changes in normative frameworks on working time arrangements have not yet occurred in the region, although this is a space to watch for future reforms.[6]

[1] Raul Dancel, "Coronavirus: Asia Not Yet Ready to Work from Home", *The Straits Times*, 14 June 2020.

[2] Raphael Bick, Michael Change, Kevin Wei Wang and Tainwen Yu, "A Blueprint for Remote Working: Lessons from China". *McKinsey Digital*, 23 March 2020.

[3] For instance, *EY*, "Majority of Surveyed Southeast Asia (SEA) Employees Prefer Not to Return to Pre-COVID-19 Ways of Working", press release, 13 July 2021.

[4] Australia, Japan and New Zealand are the only countries in the Asia–Pacific region included in the analysis, while Mexico is the only country among the 20 countries analysed that qualifies as a developing country. See also APEC 2021.

[5] The Indian Government, for example, announced a nationwide policy for work-from-home practices within special economic zones, where much of the country's IT work is based. Rule 43A, Work from Home in Special Economic Zones Rules 2006, was issued in July 2022. See the Government of India, Ministry of Commerce press release. In Japan, the Ministry of Health, Labour and Welfare published a guideline titled "Guideline to Promote the Appropriate Introduction and Implementation of Telework" in March 2021. See "MHLW's Guidelines for Promoting and Establishing High-quality Telework", *Japan Labor Issues* 5 (34), October–November 2021.

[6] Perhaps most imminent is the Amendment to the Employment Act 1955 of Malaysia that will make explicit provisions on flexible work arrangements. The Amendment was meant to go into effect in September 2022 but was postponed to January 2023 to allow further preparation time on the part of employers. See Act A1651, Government of Malaysia, Federal Legislation.

2.3 Economic inactivity and unemployment trends

▶ Highlights

- Economic inactivity increased by 55 million persons (a 4.1 per cent increase) between 2019 and 2022, compared to a 11 million increase in unemployment. That means there were five newly inactive persons for every one additional unemployed person.
- In 2022, the female economic inactivity rate in the Asia–Pacific region was 55.7 per cent, more than double the rate for men (at 25.9 per cent).
- Unemployment in the Asia–Pacific region surged in 2020, adding nearly 25 million persons (a 26 per cent increase). In 2022, the number of persons in unemployment was still 12 per cent higher than in 2019.

- The regional unemployment rate increased by 1.3 percentage points, to 6.1 per cent in 2020 (over 2019). In 2022, the unemployment rate was 5.2 per cent, which was still 0.5 percentage points above the 2019 rate. The unemployment rate in Asia and the Pacific remained below the global average in all years.

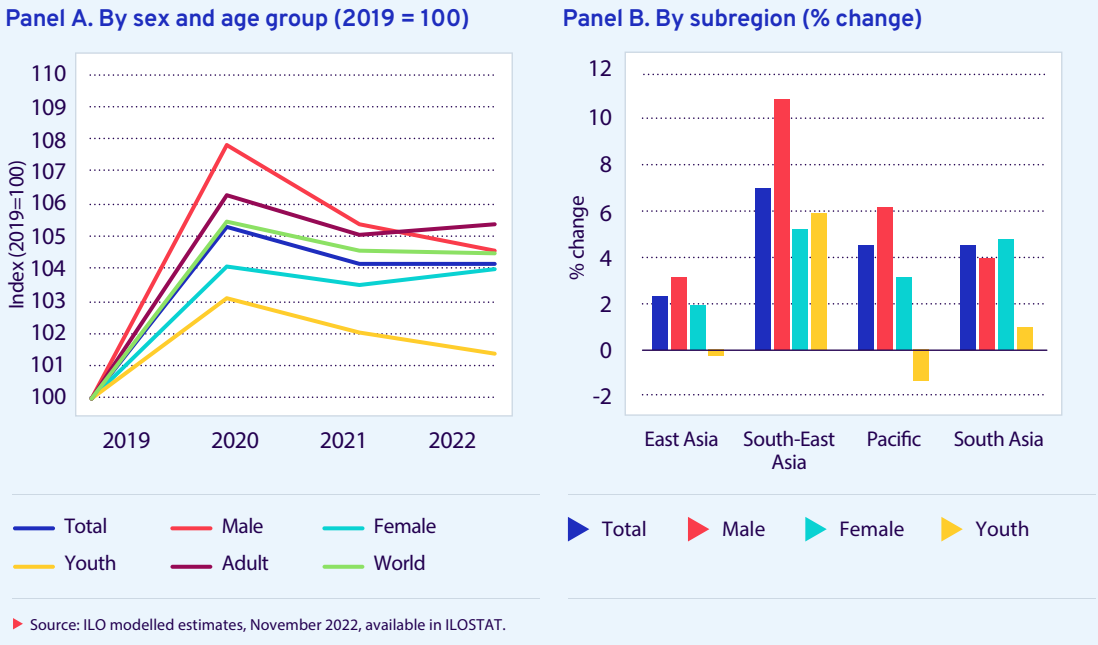
2.3.1 Inactivity

Most people who lost their job moved outside the labour force. Economic inactivity[7] increased by 55 million (a 4.1 per cent increase) between 2019 and 2022, compared to a 11 million increase in unemployment. That means there were five newly inactive persons for every one additional unemployed person.

The economic inactivity between 2019 and 2022 increased more for men than women at the regional level and for all subregions except South Asia (figure 12, panels A and B). The results reflect in part the significantly lower starting points in the male inactivity rates. In 2022, the female economic inactivity rate in the Asia–Pacific region was 55.7 per cent, more than double the rate for men (at 25.9 per cent). The wide gender disparity in employment and inactivity reflects the uneven burden of unpaid domestic care work shouldered by women and is influenced by gender stereotypes, discrimination and other factors. See box 4 on the influence of parenthood on labour force participation. Any increase to the already large shares of inactive women thus represents a painful loss in the progress women in the region have made in the labour market and a regression on the objectives of gender equality and women's empowerment.

The number of persons outside the labour force remained inflated above the pre-crisis level for men and women, youth and adult and across all subregions (figure 12, panels A and B). The increase in inactivity was largest in the 2019–22 period in South-East Asia (at 7.0 per cent), followed by South Asia (4.6 per cent), the Pacific (4.5 per cent) and East Asia (2.4 per cent). Only in South Asia was the increase larger for women than men.

Figure 12. Inactivity change, Asia and Pacific, 2019–22



Source: ILO modelled estimates, November 2022, available in ILOSTAT.

[7] The term "economic inactivity" is interchangeable with the term "persons outside the labour force".

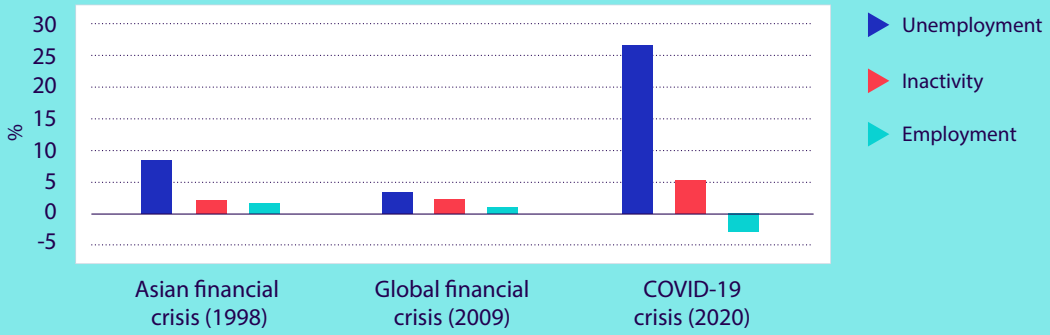
▶ Box 3. How does the COVID-19 crisis compare to the Asian financial and global financial crises?

The Asian financial crisis began in July 1997 and impacted mainly countries in East Asia and South-East Asia (Indonesia, Malaysia, the Philippines, Republic of Korea and Thailand). The crisis was primarily fiscal in nature, marked by slumping currencies, devalued stock markets and rapid rises in private debt. The global financial crisis of 2007–08 started in the United States but quickly spread to the rest of the world. The impact of both crises on the Asian economies was transmitted through falls in trade, commodity prices and investments. The COVID-19 crisis began as a health pandemic in early 2020 but solidified into an economic crisis affecting every country in the world as international borders closed, thus severely disrupting mobility and trade patterns. The national lockdowns of varying strictness led to the closing of businesses and the limiting of consumption.

The varying degrees of impact of these three crises on labour markets in Asia and the Pacific can be compared through the core indicators for employment, unemployment and inactivity. The extreme nature of the labour market impact due to the COVID-19 crisis, compared to the previous two crises, is immediately visible in the box figure. Of the three crises, only the COVID-19 pandemic resulted in an aggregate decline in employment and a rate of increase in unemployment, which was threefold of what was seen with the Asian financial crisis. The COVID-19 crisis also proved to be unprecedented in the breadth of its impact across all broad economic sectors. Employment losses at the regional level were incurred in all sectors – agriculture, industry, market services and non-market services (not shown). By comparison, the Asian financial crisis brought about employment losses in the industrial sector only, and the global financial crisis led to losses only in the agriculture sector, which was a continuation of the existing trend.

By country, the Asian financial crisis resulted in employment losses (1997–98) in five countries, based on the ILO modelled estimates. During the global financial crisis (2008–09), seven countries in the region recorded employment losses. Between 2019 and 2020, 30 countries in the region experienced employment losses, and the number of unemployed persons jumped at least 20 per cent in 19 countries, compared with nine countries during the other two crises.

▶ Change in unemployment, inactivity and employment during three crises periods, Asia and Pacific (percentage, year on year)



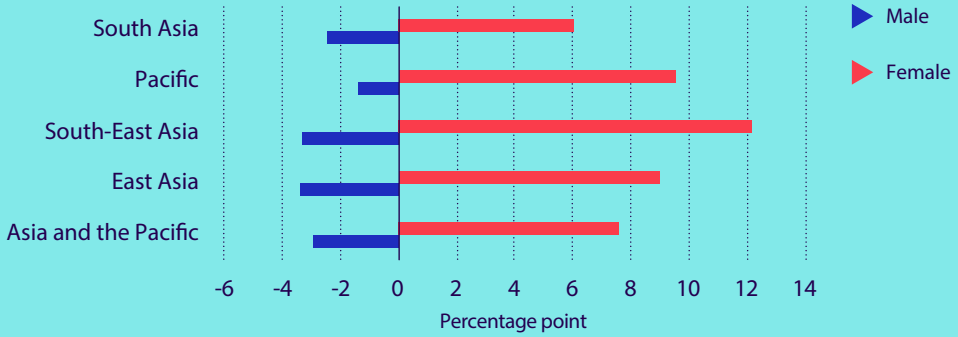
▶ Source: ILO modelled estimates, November 2022, available in ILOSTAT.

Box 4. Combining work and parenting in Asia and the Pacific

In all subregions of the Asia–Pacific region, the aggregate picture shows parenthood pushing fathers into work and mothers out of work. The labour force participation rate of a prime-age father (aged between 25 and 54 years) with small children at home in 2019 was 3 percentage points less than that of all prime-aged men. This reflects societies in which fathers are expected to take on the household provider role ("breadwinner").

For women, in contrast, the tendency is to withdraw from the labour market upon motherhood. This is reflected in the 8-percentage point gap in labour force participation of women with children against women in all households. The parenthood labour force participation gap is greatest for women in South-East Asia (at 12 percentage points).

Difference in labour force participation rates of prime-age women and men with small children and all households, Asia and Pacific and subregions, 2019 (percentage point)



Note: LFPR = labour force participation rate. Persons of prime age are aged 25–54 years. With children means they have at least one child younger than 6 years at home.

Source: Unpublished data based on ILO modelled estimates, November 2020.

The limited drop in number of inactive persons between 2020 and 2022 and slight uptick in the latter year among the adult cohort (figure 12, panel A) underlines the stickiness of inactivity as a residual category (ILO 2021b). Transitions in and out of inactivity are less frequent than transitions in and out of employment and unemployment, especially for adult women. One reason has to do with care responsibilities, which is a principal reason for many persons to remain outside the labour force, especially women. When formal education classes moved online during the COVID-19 lockdown periods, many parents gave up work to stay at home to care for their children and household. In many countries of Asia, the closure of education establishments, sporadic or in full, continued throughout 2021 and even into 2022. More frequently than not, it was mothers leaving jobs to provide needed unpaid care at home.[8] See also section 2.5.

The presence of labour market slack in the recovery of the Asia–Pacific region can be seen to partially contradict the evidence of labour shortages confronting certain sectors. Such labour shortages were exacerbated during the pandemic when many labour migrants returned to their home country, with only some of them eventually going back to their overseas employment. The shortage of foreign labour is affecting various sectors, including agriculture, fishing, construction, tourism and manufacturing in some South-East Asian countries (Suwannarat 2022). Labour shortages are also reported in certain higher-skill sectors, driven by such factors as the outmigration of skilled workers, an ageing workforce and/or the lack of training capacity.

[8] "Fallout of COVID-19: Working Moms Are Being Squeezed Out of the Labour Force", ILO Blog, November 2020.

2.3.2 Unemployment

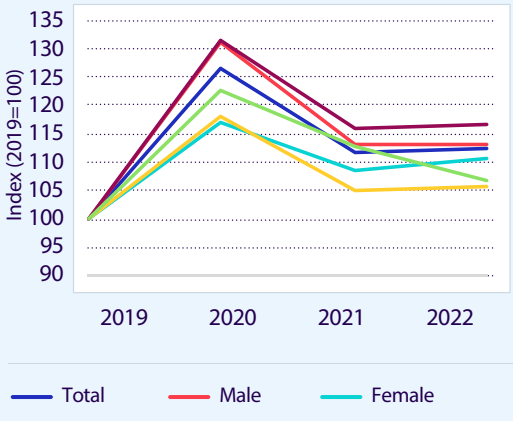
While the main holding status of persons who lost work during the crisis was inactivity, many persons still searched for work and were thus classified as unemployed. Unemployment in the Asia–Pacific region surged in 2020, adding nearly 25 million persons (a 26 per cent increase). The increase in adult unemployment was sharp, at 32 per cent in 2020, before recovering slightly to 17 per cent over the 2019 level in 2022 (figure 13, panel A). The number of young people joining unemployment was much less pronounced than adults because most of the young labour market entrants remained inactive.

As in previous crises, recovery in the labour market situation for young people is expected to lag that of older workers (ILO 2022d). Young labour market entrants will continue to encounter the challenge of being "first out" in economic downturns and "last in" during economic recovery. At the same time, the lost years of work experience can limit their future earnings and career pathways, when compared to youth entering labour markets in non-crises periods (ILO and ADB 2020).

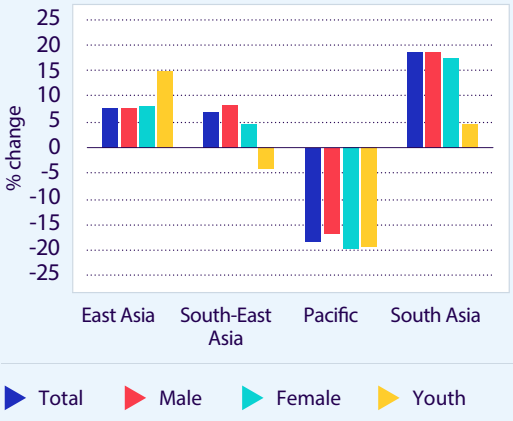
The regional unemployment rate increased by 1.3 percentage points, to 6.1 per cent in 2019–20 (figure 13, panel C). In 2022, the unemployment rate decreased to 5.2 per cent, still 0.5 points above the 2019 rate. The unemployment rate in Asia and the Pacific has remained below the global average since 1991. Box 5 discusses why this is and remarks on the muted relevance of the indicator to the regional context.

Figure 13. Unemployment and unemployment rate, Asia and Pacific

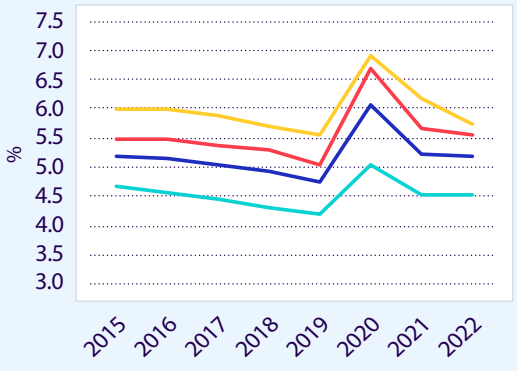
Panel A. Unemployment, by sex and age group, 2019–22 (2019 = 100)



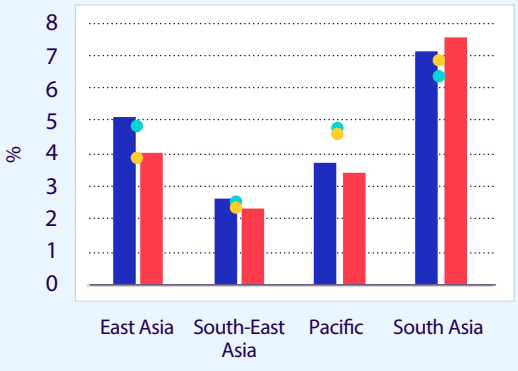
Panel B. Unemployment, by subregion, sex and youth cohort, 2019–22 (% change)



Panel C. Unemployment rate, by sex, 2015–22 (%)



Panel D. Unemployment rate, by subregion and sex, 2019 and 2022 (%)



Source: ILO modelled estimates, November 2022, available in ILOSTAT.

Unemployment increased more for men than women at the regional level and in South-East Asia and South Asia between 2019 and 2022 (figure 13, panel B). In East Asia, the increase in female unemployment was slightly higher and, in the Pacific, unemployment fell below the 2019 level for both men and women. Unemployment rates in the region were higher for men than women in 2022 regionally and in all subregions except South Asia (figure 13, panels C and D). In South Asia, the surge in unemployment among men in 2020 pushed the male unemployment rate above the female unemployment rate for the first time (since the estimate's first availability in 1991) (not shown). The reversal was short lived, however, and already in 2021, the female unemployment rate in South Asia was again higher than the male rate. South Asia is the only of the subregions where the unemployment rate of women falls above that of men.

▶ Box 5. Why the unemployment rate is a weak metric of decent work in Asia and the Pacific

The unemployment rate is probably the most widely used measure to assess the performance of a country's labour market. Yet, it has considerable limitations as a signal of an economy's health in the Asia–Pacific region. The unemployment rate should be assessed among a broader array of indicators to generate an accurate picture of the labour market situation at the country level.

Many countries in the region are characterized by an unemployment rate* that is low by international comparison. At the regional level, the unemployment rate of 5.2 per cent in 2022 remains considerably lower than the global unemployment rate of 5.7 per cent. However, the unemployment rate gives only a partial idea of how the labour market is doing in a country and is at times even misleading. The following discussion summarizes why.

First, the unemployment rate does not give any indication of the quality of jobs in a labour market. Having a low unemployment rate when the majority of workers work in jobs with high decent work deficits does not mean economies are functioning well. Most countries in the Asia–Pacific region are characterized by weak social protection systems that do not provide any unemployment insurance. This implies that large parts of the population cannot afford to be unemployed and, in the case of job loss, they take on the next best job available for them instead. Typically, these are jobs in the informal labour market, characterized by low and volatile labour incomes, a lack of social protection and lack of access to social dialogue.

Second, during the recent COVID-19 crisis, millions of workers who lost their job became inactive and not unemployed. Some workers managed to keep their job but had to reduce working hours, with associated labour income loss. Changes in the unemployment rate hence provided an incomplete picture of the overall labour market impact during the crisis.

Third, the unemployment rate technically decreases whenever an unemployed worker is leaving the labour market and moving into inactivity. There are various reasons that can explain transitions from unemployment into inactivity. One potential reason for an unemployed worker to move into inactivity is the lack of prospects to find a job and the resulting discouragement, leading the worker to give up the job search. A decrease of the unemployment rate through this channel is not an indication of a favourable labour market development.

Note: * = Measured as the share of persons of working-age who are without work, currently available for work and actively seeking work (the unemployed) in the total labour force (the sum of the unemployed and the employed) (ICLS 2013).

2.4 Decent work trends

Highlights

- The number of working women and men living in extreme or moderate poverty (in households with cumulative income of less than $3.20 per person a day) increased by 8.3 million, to reach 303 million persons in 2020 (16.7 per cent of total employment).
- In 2021, the combined extreme and moderate working poverty rate fell again to 15.3 per cent. The vulnerable employment rate remained above 60 per cent in the low-income and lower-middle-income grouping of Asia–Pacific economies in 2021. At the regional level (all income groups), the slow decline in the vulnerable employment rate over time stalled during the years of the COVID-19 crisis. In 2021, still one in two workers (50.1 per cent) was in vulnerable employment.
- Informal employment rates have decreased in the region over time but at a pace that is out of step with the region's record of economic growth. The informal employment elasticity in the high GDP growth period of 2012–15 was close to zero, meaning that informal employment rises and falls largely independent of GDP growth.
- Informal employment in Asia and the Pacific declined by 3.5 per cent in 2020, compared with 2.2 per cent for formal employment. Recovery occurred in both the number of informal and formal jobs. In 2022, formal employment is estimated to surpass the 2019 level by 3.0 per cent and informal employment by 1.4 per cent.
- The jobs recovery from the COVID-19 crisis seen so far has largely been a recovery of jobs in high-skill occupations, raising additional concerns about increased inequality.
- In 2019, the share of total labour income that accrued to the bottom 50 per cent of earners in the Asia–Pacific region was only 10 per cent. While this was an improvement over 2009, the region remained the world's second-highest in terms of unequal labour income distribution.

Progress towards the elimination of working poverty has stalled.

Working poverty in the Asia–Pacific region increased for the first time in 2020 after having trended downwards for decades. In the absence of effective institutionalized support, including social protection, households relied on limited savings to meet basic needs or went into debt. The number of working women and men living in extreme or moderate poverty (in households with cumulative income of less than $3.20 per person a day) increased by 8.3 million, to reach 303 million persons in 2020 (16.7 per cent of total employment).[9] The increase in working poverty was entirely confined to the low-income and lower-middle-income economies. In fact, working poverty (extreme and moderate combined) in developing economies increased by 2 per cent while it continued to fall in the region's upper-middle-income and high-income economies. The working poverty rate declined again in the low-income and lower-middle-income grouping in 2021 to 29.6 per cent and to 15.3 per cent overall.[10]

The increasing gap in working poverty rates between the two income groups is evident in figure 14, panel A. In 2015, the share of workers living in extreme or moderate poverty in developing Asian–Pacific economies (low-income and lower-middle-income economies) was six times that of advanced economies. The gap between working poverty shares in the two income groups has increased significantly since then as working poverty in advanced economies neared elimination while it hovered around 30 per cent in developing economies. The growing income disparity across the region was influenced by the stronger social protection systems and larger fiscal capacities of advanced economies that they were able to call upon for quicker and more effective policy responses (ILO 2022e).

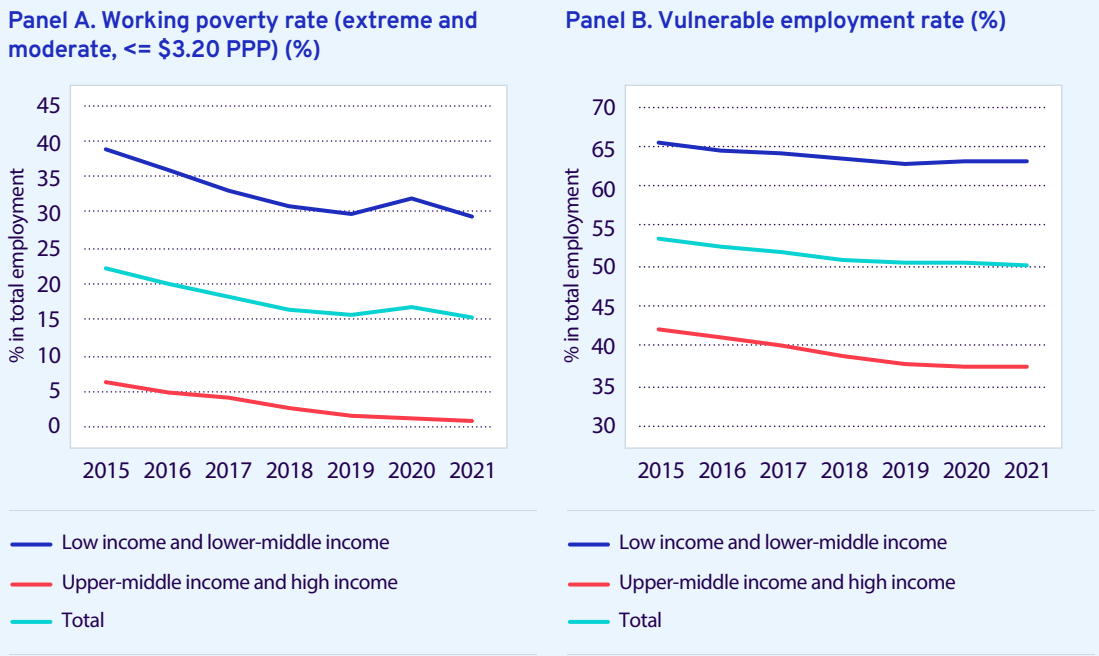
[9] Based on ILO modelled estimates, November 2022.

[10] Data were not yet available for 2022.

Vulnerable employment and informal employment remain the dominant statuses of work in the Asia–Pacific region.

The developing economies of the region have also made very little progress in increasing the share of jobs that are not vulnerable. The share of workers in own-account work and contributing family work – together categorized as vulnerable employment[11] – remained above 60 per cent in the low-income and lower-middle-income grouping of the Asian–Pacific economies in 2021 (figure 14, panel B). This was 1.7 times greater than the share in the grouping of upper-middle- and high-income economies. At the regional level (all income groupings), the figure shows clearly that the slow decline in the vulnerable employment rate over time had stalled during the years of the COVID-19 crisis.

Figure 14. Working poverty rate and vulnerable employment rate, total and by income group, Asia and Pacific, 2015–21



Note: Vulnerable employment is the share of employed persons in own-account work and contributing family work.
Source: ILO modelled estimates, November 2022.

The informal economy is ever present in the Asia and Pacific region, with at least 1.2 billion workers earning a livelihood within its realm. More than two in three of the region's workers (68 per cent) were working informally in 2018, according to the ILO's most recent estimates (ILO 2018a).[12] The share of informal employment is, on average, more than three times greater in the developing and emerging economies of Asia than in the advanced economies (71 per cent compared with 22 per cent, respectively).[13]

The COVID-19 pandemic exposed the precarity of the region's informal workers. While the jobs of many formal workers were sustained through labour laws and expanded government wage subsidy programmes, most informal workers were left to their own devices to sustain themselves and their family. The precarity of informal work is evident in the sharper loss of informal jobs, at 3.5 per cent in 2020, when compared to formal jobs, which declined by 2.2 per cent (figure 15, panel A). Informal employment among women declined by 5.4 per cent, while male informal employment declined by only 2.5 per cent (figure 15, panel B). For men, losses were larger in formal jobs than informal jobs in 2020, while the opposite was true for women.

[11] The concept of "vulnerable employment" dates back to the Millennium Development Goals target 1b. Own-account workers and contributing family workers are assumed to be less secure in their jobs and more vulnerable to poverty, although it is true that persons in paid employment and even employers (categories of non-vulnerable employment) can also lack economic security, especially given the rise of digital platform work and increased uses of temporary labour.

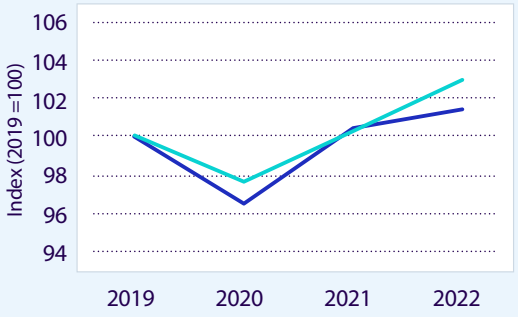
[12] Forthcoming ILO estimates show a regional informal employment rate of around 66 per cent in 2021.

[13] ILO, "More Than 68 Per Cent of the Employed Population in Asia–Pacific are in the Informal Economy", Press release, 2 May 2018.

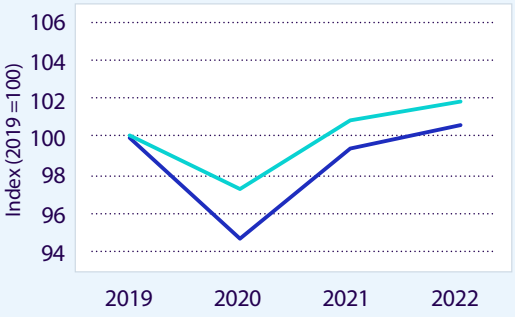
As targeted public health measures took hold and restrictions eased in 2021 and 2022, recovery occurred in both the number of informal and formal jobs. In 2022, formal employment surpassed the 2019 level by 3.0 per cent and informal employment by 1.4 per cent. The data thus confirm the storyline that workers in informal employment were the hardest hit in the COVID-19 crisis. At the subregional level, there are two outliers to the storyline. First, in South-East Asia, formal employment declined slightly more than informal employment in 2020, while in South Asia, the drop in both statuses was the same. Second, East Asia is the only subregion where informal employment remained significantly below the pre-crisis level in 2022.

▶ Figure 15. Informal and formal employment, Asia and Pacific, 2019–22

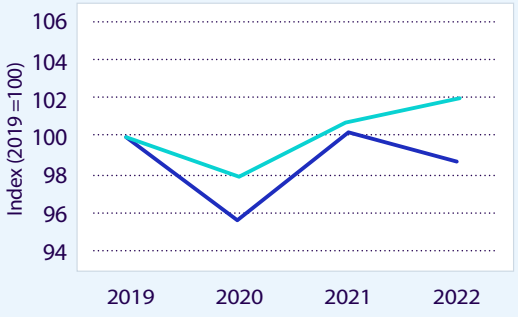
Panel A. Asia and Pacific



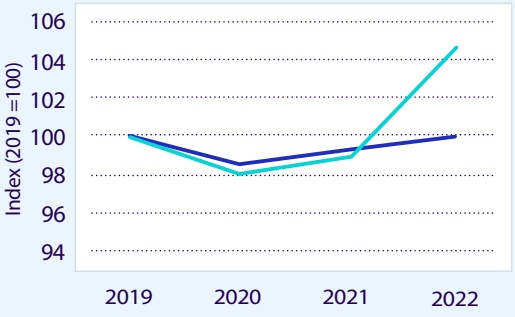
Panel B. Asia and Pacific, by sex



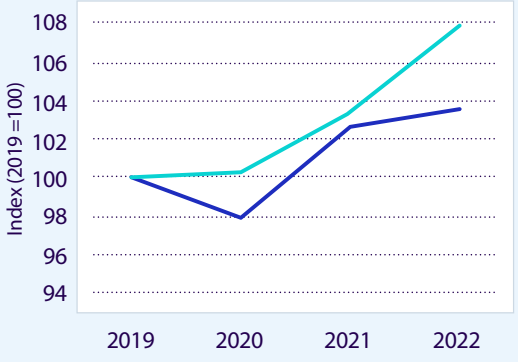
Panel C. East Asia



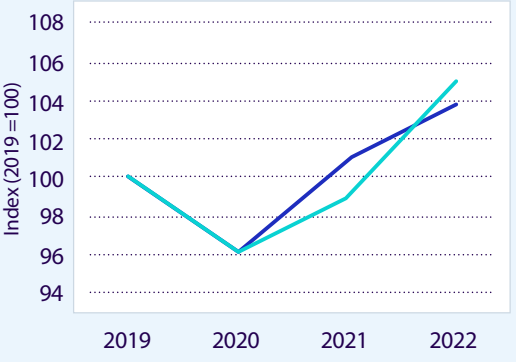
Panel D. South-East Asia



Panel E. Pacific



Panel F. South Asia



▶ Source: ILO modelled estimates, forthcoming.

Country-level data on informal employment is sparse. Where it exists with a recent time series, the data indicate increases in the informal employment rate between 2019 and 2021 for some countries.[14] In Indonesia, for instance (Q3 2019–21), the number of persons in informal employment increased by 1.5 million and the informal employment rate increased from 79.4 per cent to 80.6 per cent. In Pakistan (Q2 2019–21), informal employment added 3.5 million persons and the informal employment rate increased from 81.9 per cent to 83.5 per cent. And in Viet Nam (Q2 2019–21), informal employment increased by 182,000 persons and the informal employment rate increased slightly, from 69.5 per cent to 70.2 per cent. In contrast, Australia, Brunei Darussalam and Mongolia all experienced a slight decrease in their informal employment shares between 2019 and 2020 (2021 not available). In Brunei Darussalam, at least, this could reflect the temporary departure of migrant workers.

At the regional level, the jobs recovery from the COVID-19 crisis seen so far has largely been a recovery of jobs in high-skill occupations, which is true across all subregions, raising concerns about increased inequality (table 1).[15] With an employment gain of 1.6 per cent among high-skill workers between 2019 and 2021 and no substantial gain among low- to medium-skill workers, the skills distribution of employment in the region tilted towards the higher skill range. In 2021, 19.7 per cent of employment at the regional level was in high-skill occupations and 80.3 per cent was in the low- to medium-skill occupations.[16]

▶ Table 1. Distribution of employment by low- to medium-skill and high-skill occupational groupings (2021) and percentage change in employment by occupational grouping (2019–21), Asia and Pacific region and subregions (percentage)

	Distribution, 2021		% change, 2019–21	
Region or subregion	High skill	Low to medium skill	High skill	Low to medium skill
Asia and the Pacific	19.7	80.3	1.6	0.0
East Asia	24.3	75.7	2.3	-0.1
South-East Asia	13.7	86.3	-4.1	-0.4
Pacific	41.5	58.5	5.9	1.0
South Asia	15.9	84.1	2.4	0.3

Source: ILO modelled estimates, November 2022.

Economic growth in the region creates decent jobs but does not shrink the share of non-decent work; sharp labour market duality continues as a result.

Informal employment rates and vulnerable employment rates have decreased in the region over time but at a pace that is out of step with the region's record of economic growth. The informal employment elasticity in the high GDP growth period of 2012–15 came close to zero, indicating that informal employment rises or falls largely independent of GDP growth (table 2). Vulnerable employment is more reactive to GDP growth, yet still the vulnerable employment elasticity in the period came only to negative 0.26. For every 1 per cent increase in GDP growth, vulnerable employment in the region decreased by 0.26 per cent, on average. It is not a pace sufficient to rid the region of the more precarious work statuses. The conclusion is that economic growth in the region links to the creation of formal jobs and, to a certain degree, wage employment. It does not, however, link well to supporting the transition from informal to formal employment. For such transformation to occur, the objective needs to be firmly set within national development plans and an integrated strategy on formalization adopted and rolled out by governments in collaboration with employers' and workers' organizations (see section 4.1).

[14] Data from ILOSTAT, "Short-term Labour Force Statistics".

[15] The share of employment in high-skill occupations is defined as the share of workers classified in the following occupations: managers, professionals or technicians and associate professionals, following the International Standard Classification of Occupations (ISCO-08). Workers in low- to medium-skill occupations are those classified in the following ISCO-08 major groups: clerical support workers; service and sales workers; skilled agricultural, forestry and fishing workers; craft and related trades workers; plant and machine operators and assemblers; elementary occupations; and armed forces occupations.

[16] Data were not yet available for 2022.

▶ Table 2. GDP growth and employment, by formal, informal, wage and vulnerable status, Asia and Pacific, various periods

	2012–15	2016–19	2020–21
GDP growth, average annual (%)	5.4	5.1	2.5
Informal employment growth, average annual (%)	-0.0	0.4	0.2
Formal employment growth, average annual (%)	1.9	1.9	0.1
Wage employment growth, average annual (%)	3.2	2.5	0.5
Vulnerable employment, average annual (%)	-1.4	-0.6	0.0
Informal employment elasticity	-0.00	0.08	
Formal employment elasticity	0.35	0.36	
Wage employment elasticity	0.59	0.49	
Vulnerable employment elasticity	-0.26	-0.11	

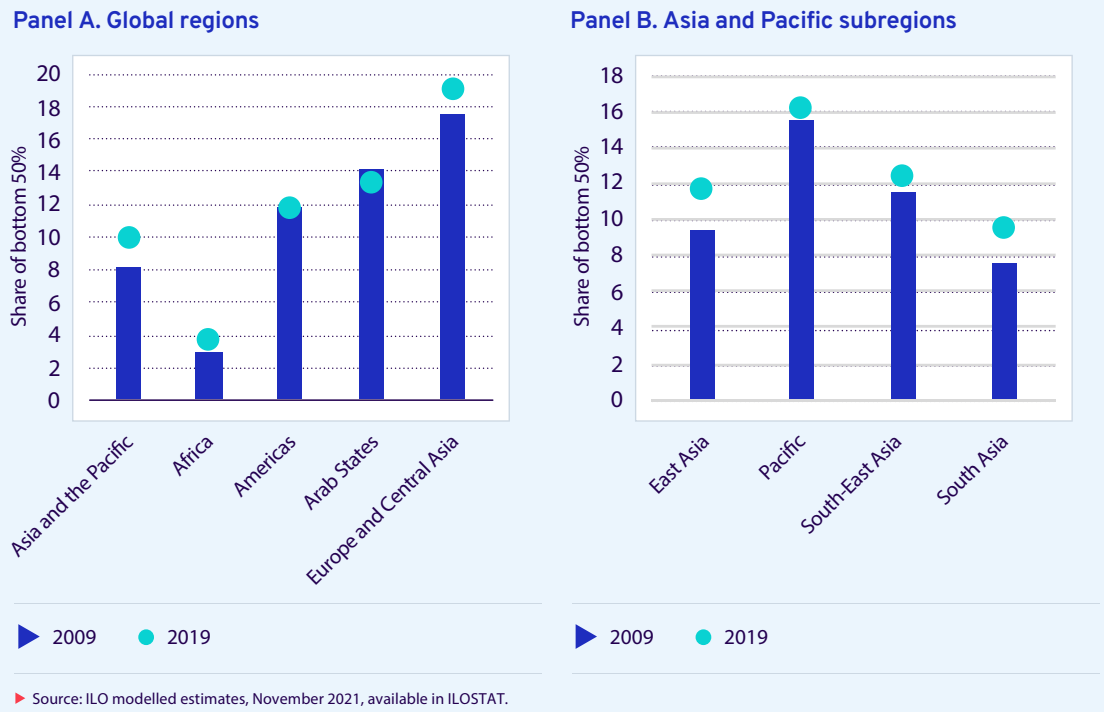
Source: IMF, *World Economic Outlook*, October 2022 (GDP growth); ILO modelled estimates, November 2022 (wage and vulnerable employment); ILO modelled estimates, forthcoming (formal and informal employment).

Continuing decent work deficits and income inequality go together.

The incapacity of the region to substantially shrink informal employment and vulnerable employment despite the pre-crisis years of impressive growth is a factor that links to the phenomenon of income inequality. It is a phenomenon that continues to plague the region and the prospects for inclusive growth (UNDP 2022; ESCAP 2018). In 2019, the share of total labour income that accrued to the bottom 50 per cent of earners was 9.8 per cent in the Asia–Pacific region. This was the second-lowest among the world's regions (figure 16, panel A). By comparison, the lowest earners in Europe and Central Asia had a labour income share of 18.9 per cent. The slight increase in the distribution of labour income among the bottom 50 per cent in the Asia–Pacific region from 2009 reflects the region's slight gains in middle-class earners.

By subregion, the labour income distribution was most unequal in South Asia, followed by South-East Asia and East Asia (figure 16, panel B). East Asia showed the largest gain in the income share of the lowest earners between 2009 and 2019 (at 2.3 percentage points), followed by 1.9 points in South Asia.

Figure 16. Labour income share of the bottom 50 per cent, global regions and Asia and Pacific subregions, 2009 and 2019



Source: ILO modelled estimates, November 2021, available in ILOSTAT.

2.5 COVID-19 crisis and vulnerabilities

The vulnerabilities of certain population groups become more obvious during times of crises, the COVID-19 crisis being no exception. Already numerous reports have identified the characteristics of persons most harshly affected by the crisis in terms of job and income losses (ILO 2022a, 2022e, 2020a). The penalties on youth, women, persons in specific occupations and sectors, MSMEs and informal workers are documented. For the region, some highlights of the crisis impact on vulnerable groups are summarized here.

- Employment losses were consistently higher among youth than adults. While employment in 2020 declined by 8.9 per cent among young workers in the Asia–Pacific region, adult employment declined by 2.3 per cent (figure 10, panel A). In 2022, youth employment was 3.4 per cent below the 2019 level, while adult employment was up by 2.7 per cent.
- In 2020, female employment for the region dropped by 3.1 per cent, while it was 2.9 per cent for men. A year later, both female and male employment had recovered their losses but the increase over 2019 levels was stronger for men than women. At the same time, the working hour losses were higher for men than women throughout the crisis and gains in inactivity, unemployment and youth NEET status were higher for men than women.
- The share of young people who are not in employment, education or training (NEET) among the youth population increased by 1.6 per cent between 2019 and 2022, to reach 23.8 per cent (table 3). Half of the global increase in young persons who were NEET in 2020 was in the Asia–Pacific region. With the disruption to education and training institutions and with few employment prospects for labour market entrants, most of the additional 2.5 million young persons who were NEET in the region in 2022 (over 2019) were inactive non-students (with few unemployed non-students) (ILO 2022f).
- There is a structural gender imbalance in the region's youth NEET rates, reflecting the persistent nature of women's exclusion from education and employment opportunities, especially in South

Asian countries.[17] In 2022, the female youth NEET rate at the regional level was more than two times greater than the male rate, at 34.8 per cent and 13.8 per cent, respectively (table 3). The crisis impact led to many more young men joining the ranks of NEET. Most of the increase in youth NEETs at the regional level from 2019 to 2022 was young men, with especially large gains of young male NEETs in South-East Asia and South Asia. The jump in young male NEETs is expected to be temporary and to have little impact on the sizable gender gap in the medium to long run.

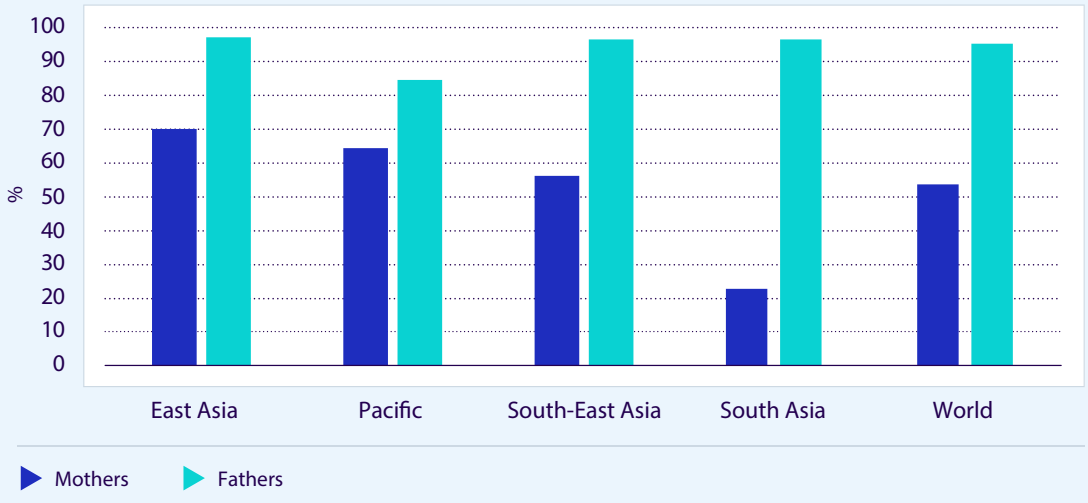
Table 3. Youth NEET rates, 2022, and change in number of youth NEETs, 2019–22, Asia and Pacific region and subregions (percentage)

Region or subregion	NEET rate, 2022			% change, 2019–22		
	Total	Male	Female	Total	Male	Female
Asia and the Pacific	23.8	13.8	34.8	1.6	4.3	0.5
East Asia	13.5	11.1	16.1	-0.7	1.0	-2.0
South-East Asia	18.3	14.0	22.9	5.0	7.9	3.2
Pacific	15.4	14.9	16.0	1.2	2.6	-0.2
South Asia	30.9	15.1	47.9	1.6	4.8	0.5

Source: ILO modelled estimates, November 2022.

In South Asia among prime-age workers (25–54 years) with at least one child younger than 6 years at home, the number of mothers in 2020 who participated in the labour force decreased by 5.8 per cent from 2019. This is a loss of participation that was three times higher than the figure for fathers (negative 1.8 per cent). This "motherhood penalty" of the pandemic's labour market impact [18] is not evident in the other Asia–Pacific subregions. But all subregions maintain a sizable labour force participation gap between prime-age mothers and fathers of small children (figure 17). The size of the parenthood participation gap between mothers and fathers of small children in the region ranged from 20 percentage points in the Pacific to 73 percentage points in South Asia in 2020 (see also box 4).

Figure 17. Labour force participation rate of prime-age mothers and fathers of small children, Asia and Pacific subregions and global, 2020



Note: The indicator relates to persons aged 25–54 years and with at least one child younger than 6 years at home.
Source: ILO modelled estimates, November 2021, available in ILOSTAT.

[17] See ILO (2022f) for an in-depth analysis of NEETs in the Asia and the Pacific region and an overview of good practices to promote youth engagement.

[18] "Fallout of COVID-19: Working Moms Are Being Squeezed Out of the Labour Force", *ILO Blog*, November 2020.

2.6 A hollow recovery

Highlights

- Despite positive employment growth, the number of persons employed in 2021 remained 35 million below where it might have been had the crisis never happened. This jobs gap narrowed further to 22 million in 2022 but is projected to increase again to 26 million in 2023.
- An excess of 26 and 13 million persons respectively remained outside the labour force in 2021 in 2022, compared to what had been expected in the absence of any crisis. Unemployment remained 9 million above expected levels in both 2021 and 2022.

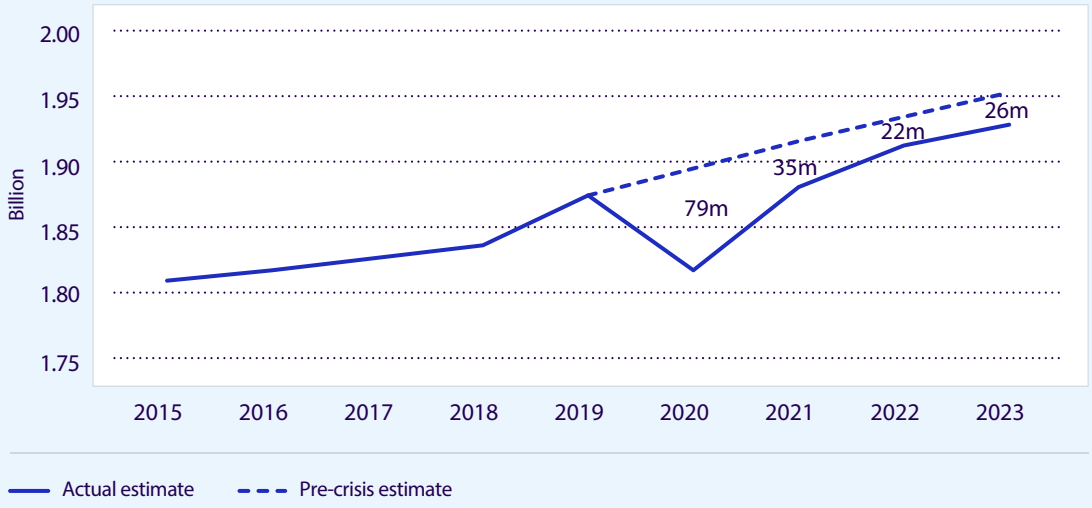
In 2021 and 2022, employment increased again at the regional level, growing by 63 million in 2021 and by a further 31 million in 2022. Unemployment decreased by 14 million persons in 2021 to 104 million and remained stable in 2022. Also the number of inactive persons decreased by 15 million persons in 2021 and held steady in 2022. On the aggregate then, and ignoring job quality issues, recovery in the jobs market in Asia and the Pacific is shown to be underway. But how does this compare to where the labour market might have been had the crisis never happened?

This section makes the comparison between current estimates and a hypothetical scenario in which the labour force participation rate and employment-to-population ratio in the 2020–23 period are assumed to remain at 2019 levels. The assessment reveals that an additional 79 million persons might have been employed in 2020, compared to actual estimates, indicating a jobs gap of 4.3 per cent caused by the COVID-19 pandemic (figure 18, panel A). Despite the positive employment growth in 2021, the number of persons employed was 35 million, or 1.8 per cent, below where the situation might have been had the crisis never happened. The jobs gap narrowed further down to 22 million, or 1.1 per cent, in 2022. With the current challenging macroeconomic environment (see section 2.1), the jobs gap is projected to increase again to 26 million, or 1.4 per cent, in 2023.

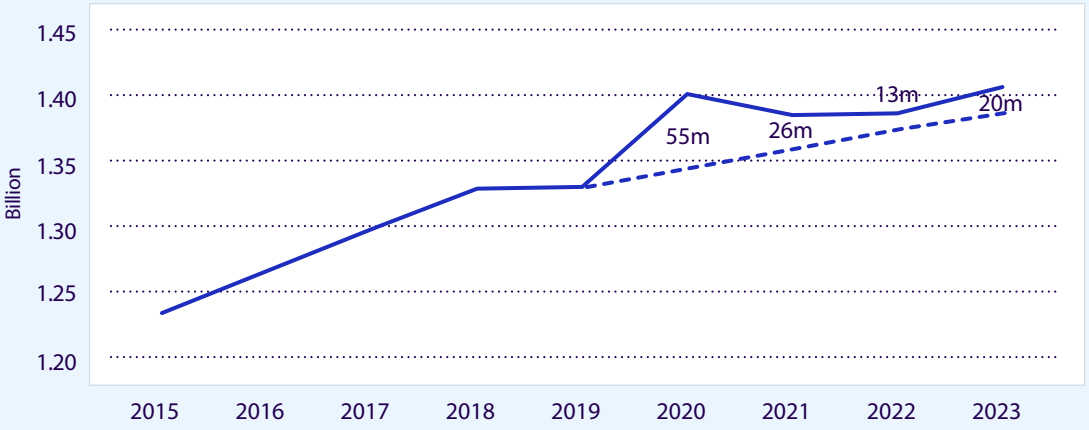
Similarly, while the excess growth in inactivity and unemployment numbers also eased somewhat in 2021 and 2022, sizable surpluses remained compared to the counterfactual scenario (figure 18, panels B and C). While the surplus in unemployment is projected to narrow to 6 million in 2023, the surplus in inactivity is projected to increase again to 20 million as the foundations of economic growth in the region remain shaky.

Figure 18. Labour market status, actual estimates against hypothetical no-COVID-19 scenario, Asia and Pacific, 2015–23

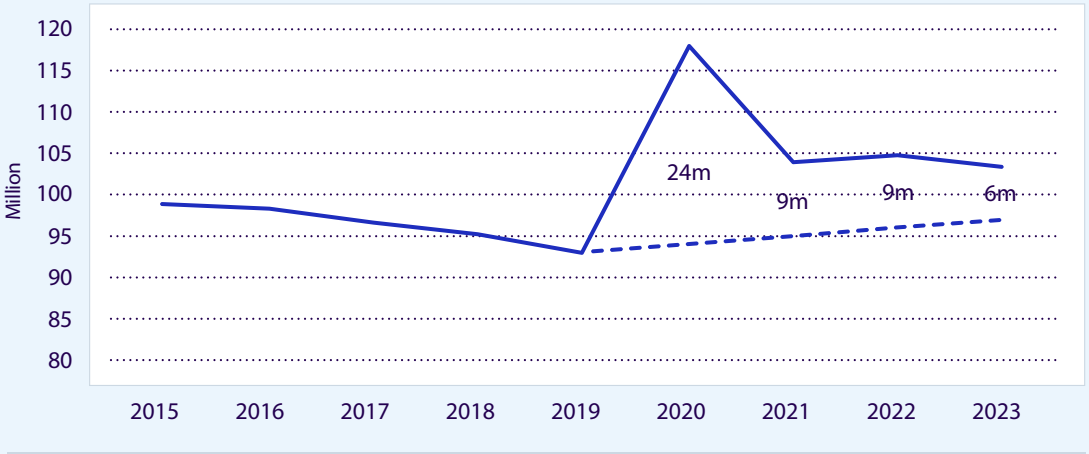
Panel A. Employment



Panel B. Inactivity



Panel C. Unemployment



▶ Note: The pre-crisis estimate shows employment, inactivity and unemployment in a hypothetical no-COVID-19 scenario in which the labour force participation rate and employment-to-population ratio in the 2020–23 period are assumed to remain at their 2019 levels.

Source: Calculations based on ILO modelled estimates, November 2022.

3

3. Where people work and why it matters for inclusive growth

3.1 Sectoral distribution of employment

▶ **Highlights**

- The three largest sectors in terms of employment in the Asia–Pacific region are agriculture, forestry and fishing; manufacturing; and wholesale and retail trade. The sectors together accounted for over 1.1 billion workers in 2021, or 60 per cent of the region's workforce of nearly 1.9 billion.
- The dominance of employment in the agriculture sector is especially prominent in South Asia (at 41 per cent of total employment). More than one in three jobs held by men and nearly three in five jobs held by women in South Asia are in agriculture.
- The manufacturing sector is the largest source of non-agricultural jobs for both women and men, followed closely by wholesale and retail trade. Other sectors that are important for employment of women are education, accommodation and food service activities and health and social work activities. For men, the construction sector and transport are the other primary employment sources for men in all subregions.
- Nearly one in four workers in the manufacturing sector in the region works in the garment sector, making it the largest source of employment in manufacturing. One in six manufacturing workers is employed in the manufacturing of food products, beverages and tobacco.

3.1.1 Distribution by 21 sectors[19]

Agriculture, manufacturing and wholesale and retail trade dominate the region's employment picture.

The three largest sectors in terms of employment in the Asia–Pacific region are agriculture,[20] manufacturing and wholesale and retail trade. Respectively, in 2021, the employment share in these three sectors was 30 per cent, 15.6 per cent and 14.7 per cent of total employment (figure 19, panel A). The three sectors together accounted for over 1.1 billion workers, or 60 per cent of the region's workforce of nearly 1.9 billion in 2021.

Other sectors that currently figure among the top ten in share of employment are: construction; education; transport; accommodation and food service activities; public administration; arts, entertainment and recreation; and other business sector services.

[19] The term "sector" is used in place of "economic activity", the latter being the term applied in the International Standard Industrial Classification of all Economic Activities (ISIC) framework on which this analysis is based. The sectoral breakdown of employment presented in most of section 3 is based on the disaggregation of 21 sectors, as shown in the fourth column of the Annex 3 table, unless otherwise specified (namely in section 3.1.2 and with reference to the garment sector).

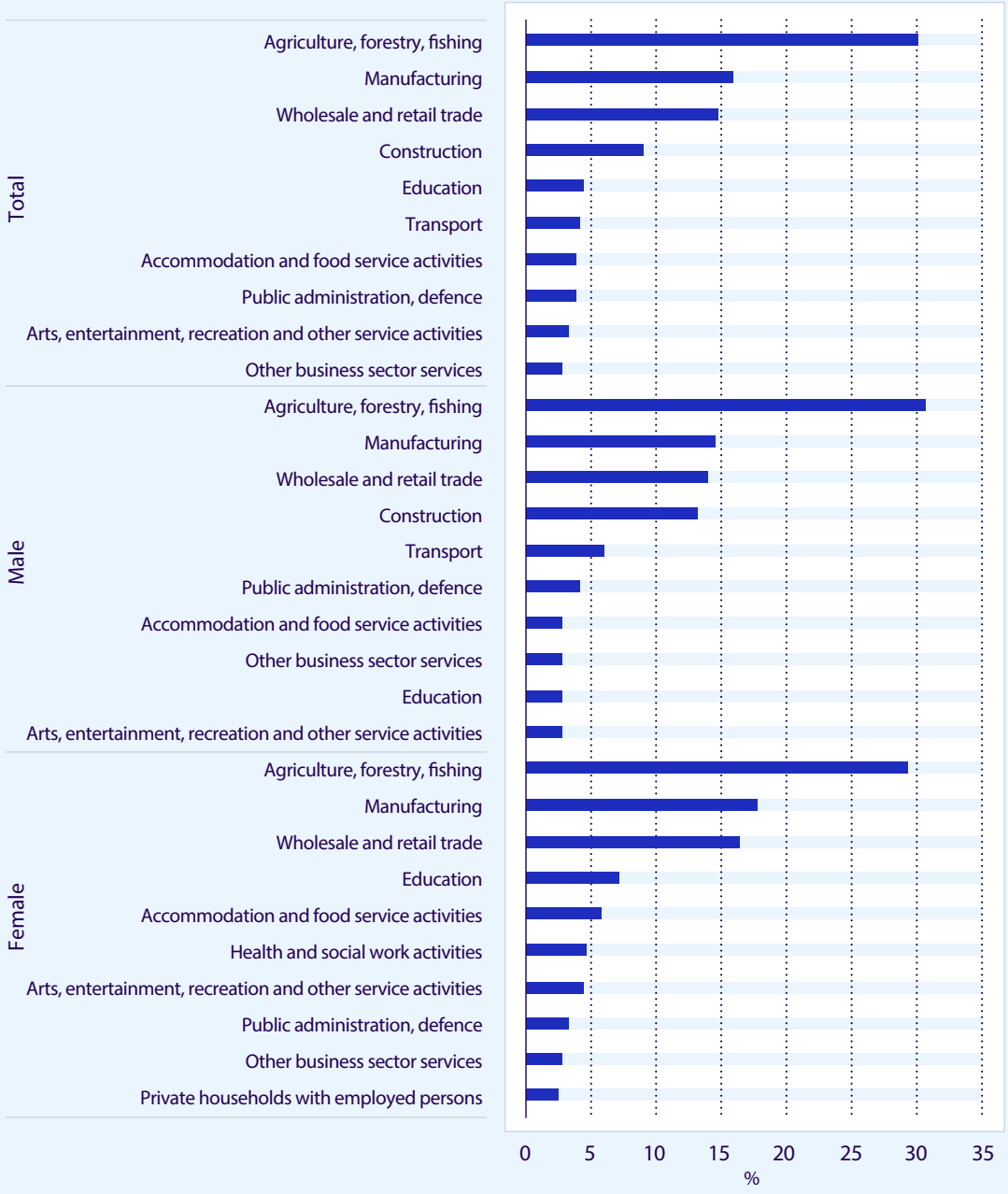
[20] The term "agriculture" is used here but the sector includes forestry and fishing.

Most women and men work in agriculture, manufacturing and trade; other top sectors of employment are dominated by one sex.

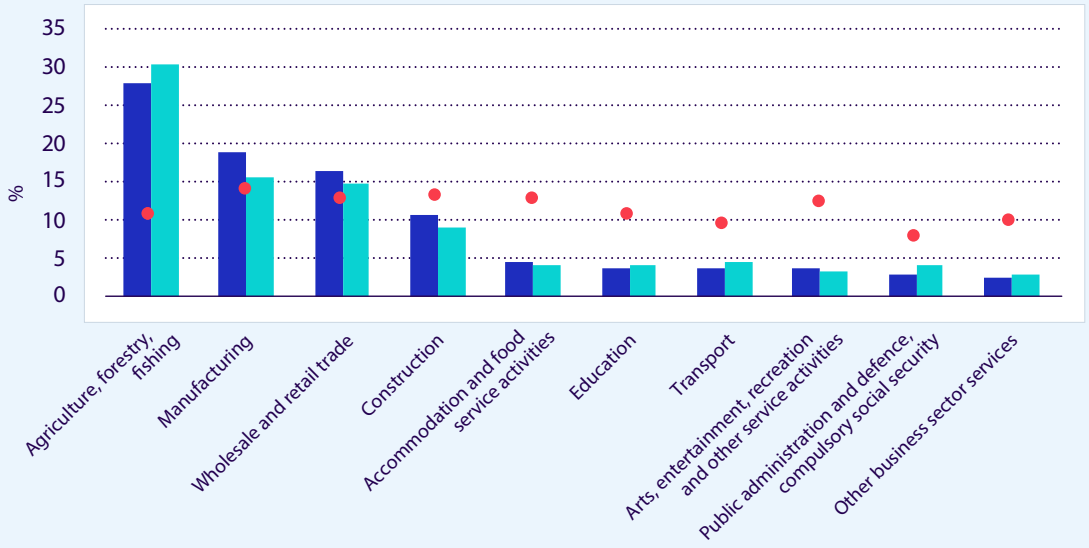
There are some important differences in the sectoral storylines by sex. Sectors that figure among the top ten for male employment but not female employment are construction and transport (figure 19, panel A). Conversely, the sectors that figure among the top ten for female employment but not male employment are health and social work activities and private households with employed persons. The latter is the sector where domestic workers are classified.

▶ Figure 19. Ten sectors with largest employment shares, by sex and age cohort, Asia and Pacific, 2021

Panel A. By sex (% in total employment, male employment, female employment)



Panel B. Youth and adult employment (%)



Note: "Youth" are persons aged 15–24 years. "Adults" are persons aged 25 years and older.
Source: ILO modelled sectoral estimates, November 2022.

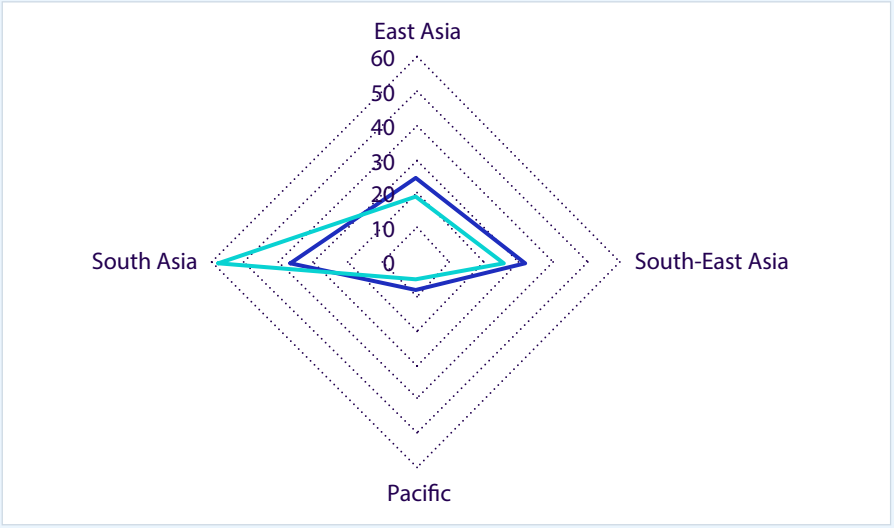
The distribution of youth employment (persons aged 15–24 years) by top ten sectors of employment mimics that of all working-age persons (15 years and older) (comparing panel A (total) and panel B of figure 19). One nuance within youth employment, however, is the greater concentration of young workers within the manufacturing sector (18.7 per cent of youth employment, compared with 15.3 per cent of adult (aged 25 and older) employment (figure 19, panel B)), indicating the importance of the sector as an employer for young people. The only other sectors with a larger sectoral share in total youth employment compared to the share in total adult employment are wholesale and retail trade, construction and accommodation and food service activities. These are sectors in which young persons often gain early labour market experience before transitioning into other sectors as adults or dropping out of the labour market (as is often the case for young women). Within agriculture, there is a lower concentration of young workers, indicating that many young job seekers tend to look for jobs outside agriculture, which are often the higher productivity and better paid jobs.

Dominant sectors differ among subregions, but not by much.

The difference in the concentration of employment by sector across subregions is evident in figure 20. The dominance of employment in the agriculture sector is especially prominent in South Asia (at 41 per cent of total employment). More than one in three jobs held by men and nearly three in five jobs held by women in 2021 were in agriculture in South Asia (figure 20, panel A). The share of agricultural employment remained significant in all subregions except the Pacific.

▶ Figure 20. Leading sectors in employment share, Asia and Pacific subregions, 2021

Panel A. Employment share in agriculture, by sex (% in total employment)



Panel B. Largest sectoral share, excluding agriculture, by sex, Asia and Pacific subregion, 2021 (% in total employment)

	Male					Female				
Sector	East Asia	South-East Asia	Pacific	South Asia		Sector	East Asia	South-East Asia	Pacific	South Asia
Manufacturing	17.1	13.3		12.4		Manufacturing	20.3	16.8		12.8
Construction	12.8	11.8	13.6	14.0		Wholesale and retail trade	17.4	24.3	21.9	6.3
Wholesale and retail trade	12.6	15.1	16.4	14.4		Education	7.4		11.6	6.5
Other business sector services			8.9			Accommodation and food service activities		7.4		
						Health and social work activities			19.2	

▶ Note: Only the top three sectors by employment share per subregion are shown.
Source: ILO modelled sectoral estimates, November 2022.

The manufacturing sector is the largest source of non-agricultural jobs for women in East Asia and South Asia and the second-largest in South-East Asia (figure 20, panel B). Wholesale and retail trade is another important source of employment for women in all subregions, taking the top share of female employment outside agriculture in South-East Asia and the Pacific. The other sectors that are important for employment of women are education, accommodation and food service activities and health and social work activities.

For men, the manufacturing sector is the largest employer outside agriculture in East Asia, the second largest employer in South-East Asia and the third-largest employer in South Asia. The construction sector and wholesale and retail trade are the other primary employment sources for men in all subregions.

3.1.2 Manufacturing sector in focus

The manufacturing sector continues to be strategic for both economic and employment growth.

The manufacturing sector is one of the most important sectors in terms of employment in the Asia–Pacific region.[21] At the same time, it remains highly skewed towards certain activities (figure 21, panel A). In 2021, nearly one in four workers in the manufacturing sector in the region worked in the manufacturing of garments, making it the largest source of employment in manufacturing. One in six manufacturing workers was employed in the manufacturing of food products, beverages and tobacco. One in nine workers was in other manufacturing, which also includes the repair of machinery and equipment. Taken together, these three manufacturing subsectors accounted for more than half of the region's total manufacturing employment. They accounted for 62 per cent of total manufacturing employment in South Asia, for 60 per cent in South-East Asia and for 44 per cent in East Asia, where the three subsectors were the top three sectors in terms of employment (figure 21, panel B). In the Pacific, also fabricated metal products was an important sector of employment in 2021, while garment manufacturing played a less important role.

The representation of young workers was particularly high in the manufacturing of garments as well as computer, electronic and optical products. These two industries have played equally important roles as employers of women. Other manufacturing subsectors in which women were relatively well-represented include food products, beverages and tobacco, and rubber and plastics. Still, it was only in garments and electronics within the manufacturing sector where women accounted for the majority of the workforce (figure 21, panel C).

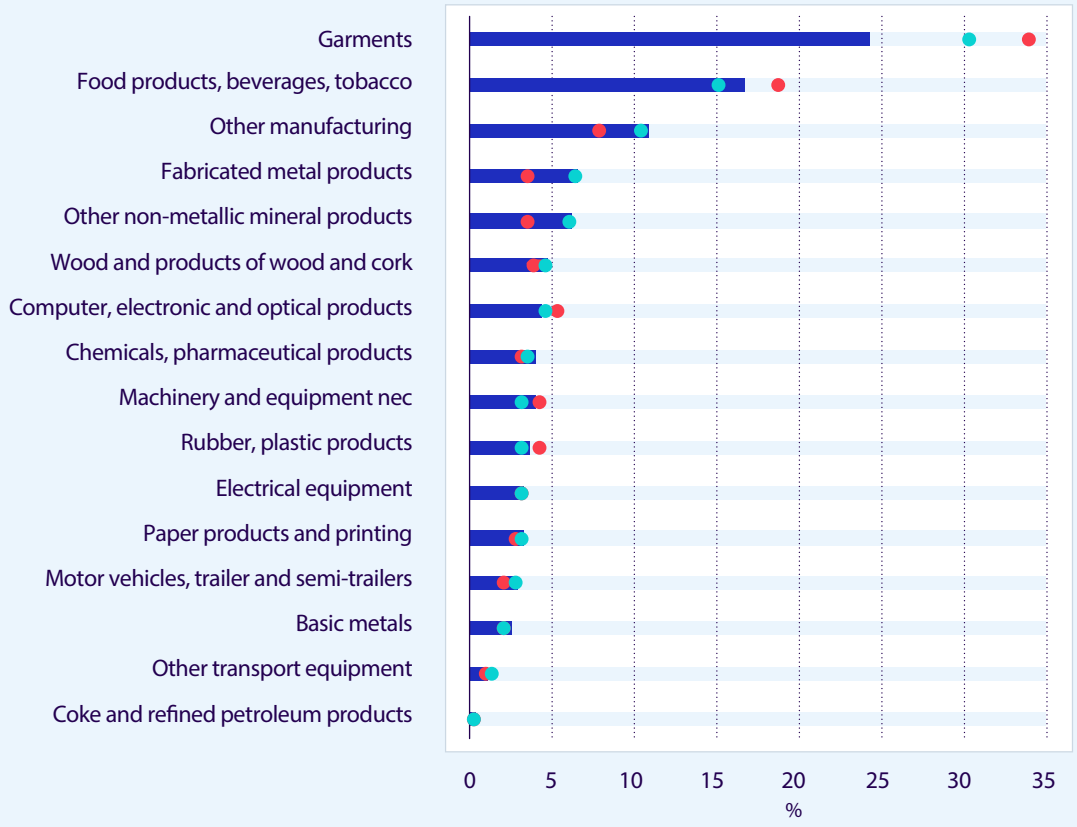
The sectoral employment dynamics also vary widely between the different manufacturing subsectors (figure 21, panel D). While the garment sector is the largest manufacturing subsector in terms of employment, it is at the same time the only sector that has experienced negative growth in the pre-pandemic years as well as during the pandemic. In other words, employment in the early 1990s was at levels higher than those observed in the early 2020s.

Over the past three decades, the automotive industry (motor vehicles, trailers, semi-trailers) was the fastest-growing manufacturing subsector in the Asia–Pacific region in terms of employment, driven to a large extent by a steady increase in the consumer demand for cars within the region. Certain manufacturing subsectors were able to add workers between 2019 and 2021, reflecting either steady demand during the COVID-19 crisis (for chemicals and pharmaceuticals, for instance) or resumed consumption demand upon the recovery in 2021 (for automobiles, for instance). Employment increased in the following manufacturing subsectors in the 2019–21 period: the automotive industry; chemicals and pharmaceutical products; electrical equipment, fabricated metal products; rubber and plastic products; coke and refined petroleum products; computer, electronic and optical products; and food products, beverages and tobacco.

[21] This section discusses employment trends within the subsectors of manufacturing. See column 3 of the sectoral definitions in the Annex 3 table.

Figure 21. Employment in the manufacturing sector, Asia and Pacific

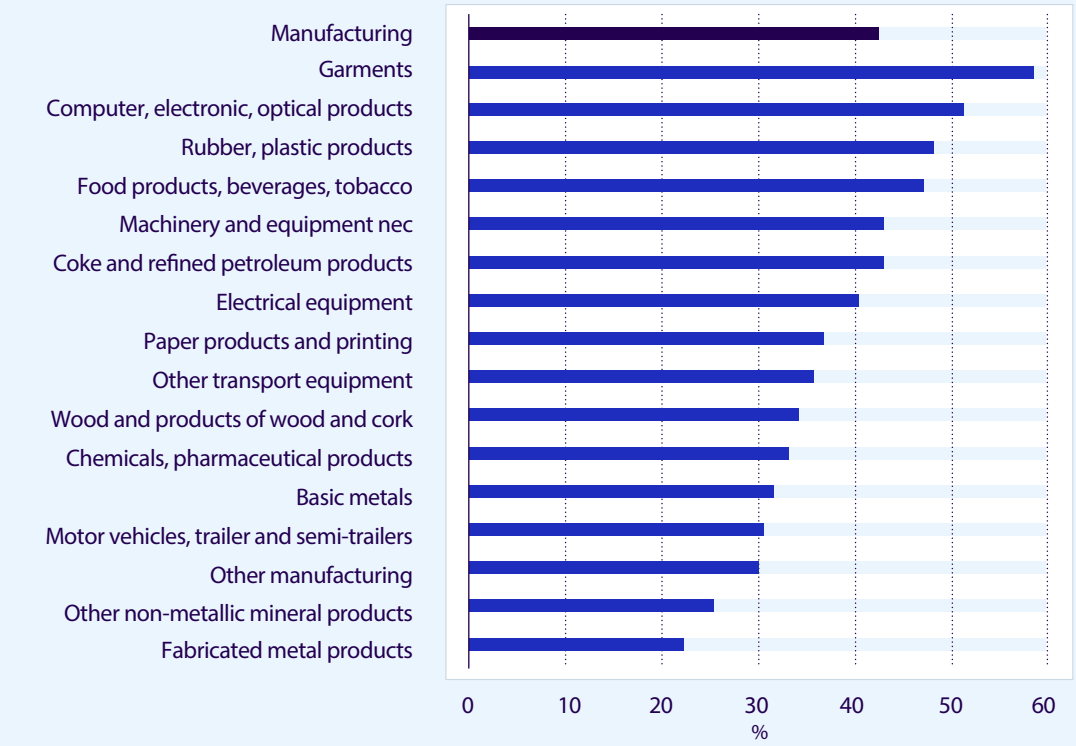
Panel A. Total (female, youth) employment by manufacturing subsector as percentage in total (female, youth) manufacturing employment, 2021



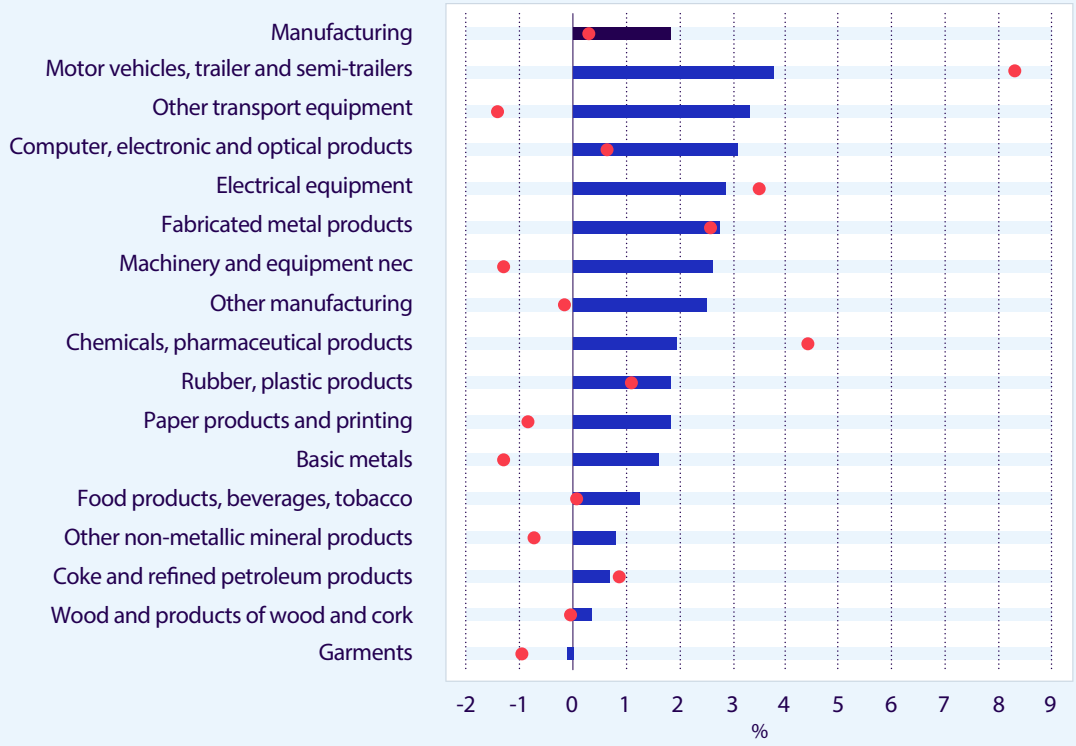
Panel B. Largest employment shares by manufacturing subsector, Asia and Pacific subregion, 2021 (% in total manufacturing employment)

	East Asia	South-East Asia	Pacific	South Asia
Garments	17.4	29.5		34.8
Food products, beverages, tobacco	16.6	20.4	22.0	14.7
Other manufacturing	10.4	10.2	10.8	12.3
Fabricated metal products			10.4	

Panel C. Female employment as a percentage in total employment, by manufacturing subsector, 2021



Panel D. Total employment growth by manufacturing subsector, 1991–2021 and 2019–21 (average annual percentage)



Note: In panel B, only the top three subsectors by employment share per subregion are shown.
Source: ILO modelled sectoral estimates, November 2022.

3.2 Measuring decent work by sectors

The quality of employment is dependent on numerous factors, some measurable (level of wages or type of contract) and others less so, given their perception-based nature (job satisfaction). Since 2008, the ILO has engaged in conversations with experts to develop a framework of indicators that could reflect the decent work concept in all its complexities. Various guidelines have ensued.[22] More recently and with the conceptualization of the 2030 Agenda for Sustainable Development, the ILO was selected as custodian of 14 Sustainable Development Goal indicators that directly and indirectly link to decent work as a contributor to productive and inclusive growth and sustainable development (ILO 2018c). What is evident from this process is that no one indicator can get to the heart of what differentiates a "good" job from a "bad" one, hence the care given in prescribing that multiple labour market indicators be assessed together.

Measuring the quality of jobs across sectors requires multiple indicators.

For the purpose of assessing what sectors of employment harbour better-quality jobs, four indicators are analysed here:[23] (i) the share of workers in wage employment,[24] (ii) the formal employment rate, (iii) the share of employment in high-skill occupations and (iv) the share of highly paid employees.[25] All indicators are expected to show a positive correlation with high-quality outcomes of employment by sector. All are measured in relation to total employment in the specific sector, except highly paid employees, which is a measure of paid employment in the sector only (excluding self-employment).

To assess where specific sectors of employment fall on a generalized job quality spectrum, the distance to average was calculated for each indicator based on the 2021 results of the modelled estimates across sectors. Figure 22 presents the 21 sectors on an aggregated spectrum (average of results across the four indicators).

This is by no means a definitive qualification of decent work in each sector. Not all work in the education sector, for instance, can be said to be high-skill, highly paid and formal in nature, and not all jobs in retail trade are low-skill, poorly paid and informal. Nonetheless, the assessment indicates the likelihood of workers within specific sectors (compared to others) to benefit from work that is more formalized and potentially bringing greater protection in terms of contracts, benefits and higher wages. It is also important that the assessment includes other elements important to the determination of decent work, such as rights at work.

One finding of interest in the results is the comparatively low assessment of decent work in the manufacturing sector. The manufacturing sector has been an important source of economic growth in the region, pushing economies like Japan, Republic of Korea, Singapore and Taiwan (China) to positions of dominance in global industrial markets and transforming their national economy into high income status. In more recent times, growth in the manufacturing sector is not lending itself to such economic transformation. The poor decent work content of manufacturing employment is an important part of this story (see section 3.1.2).

[22] See, for instance, ILO 2008 and ILO 2013a.

[23] The indicators are not inclusive of all decent work pillars. They do not offer information, for instance, on the application of fundamental principles and rights at work with countries. Nor do they allow for an assessment of gender gaps across outcomes. All decent work indicators are discussed in ILO 2008 and ILO 2013a.

[24] Caution is advised in using the share of wage employment as a proxy for decent work as a stand-alone indicator. Paid employment can be of a temporary nature, without contract and with low pay. A good example is the category of private employees in households. Despite being 93 per cent in paid employment, workers in the sector were dominantly informal (94 per cent), low-skilled (97 per cent) and poorly paid (47 per cent).

[25] The share of employment in high-skill occupations is defined as the share of workers classified in the following occupations: managers, professionals, technicians, and associate professionals, following the ISCO-08. The share of highly paid employees is defined as the share of employees whose wages are above two thirds of the median hourly wage in a given country and year. The hourly wage was calculated from data on wages and actual hours worked that are available from national Labour Force Survey findings. See Annex 3 for information on the estimation methodology used to produce regional aggregates.

▶ Figure 22. Spectrum of job quality, by sector of employment, 2021, Asia and Pacific

▶ Note: Four indicators were examined at the aggregate Asia–Pacific level for each sector: the share of workers in formal employment, share of workers in wage employment, share of (wage) workers in highly paid jobs and the share of workers in high-skill occupations. For each indicator, the "distance-to-average" was produced per sector, with these results then averaged across the four indicators.

Source: ILO modelled sectoral estimates, November 2022.

In preparing this report, a selection of sectoral studies was undertaken to deeply dive into employment trends and prospects for decent job creation in sectors of strategic importance to the region. The sectors selected for focused analysis are summarized in table 4, with some general statistics to demonstrate the significance of the sector for economies and livelihood source for Asian–Pacific workers. Eight sectoral labour market profiles are published separately as sister pieces to this report.[26]

[26] The documents are available at: www.ilo.org/asia/publications/apeso/lang--en/index.htm. The garment sector was not produced as one of the Sectoral Labour Market Profiles because it is discussed and analysed in a separate format (see ILO 2022h).

▶ Table 4. Broad employment profiles, by selected sectors, Asia and Pacific

	Size		Growth		COVID-19 impact			
Sector	Comparative scale of employment number in 2021 (employment size, scale of 36 sectors)	Female share of total employment, 2021 (%)	Summary	Share of job growth that went to women, 1991–21 (%)	Employment change 2019–20	Recovery in 2021 over 2019?	Quality (with some aspects of decent work)	General
Agriculture	1st largest sector (563 million)	36.1	Contracting	Job loss	Lost 8.9 million jobs (already contracting)	Yes	Primarily informal, own-account work and with low pay	Top jobs source, but declining in importance
Wholesale and retail trade	2nd (277 million)	41.3	Growing but not high growth	42.6	Lost 4.7 million jobs	Yes	Primarily informal, own-account work and with low pay	Important sector as steady source of jobs for men and women
Construction	3rd (170 million)	8.7	Growing but not high growth	8.5	Lost 6.1 million jobs	Yes	Primarily informal, nearly half own-account; relatively small share of low pay workers	Important sector as steady source of jobs for men
Transport	5th (75 million)	6.4	Growing but not high growth	2.7	Lost 4.6 million jobs	No	Primarily informal, more than half own-account	Important sector as steady source of jobs for men
Accommodation and food service activities	6th (74 million)	54.8	High growth	54.8	Lost 4.4 million	No	Primarily informal, more than 4 in 10 workers own-account; with low pay	Important sector as steady source of jobs for men and women
Manufacturing of garments	8th (71 million)	58.9	Contracting	Job loss	Lost 3.7 million jobs (already contracting)	No	Majority informal, less than 4 in 10 workers own-account; average wages	Important sector as source of jobs for women and men, but contracting (predominantly in East Asia)
Health and social work activities	12th (47 million)	67.6	High growth	78.6	Lost 270 000 jobs	Yes	Primarily formal, paid employment; majority with relatively high pay	Increasingly important sector as source of jobs for women
Private households with employees	15th (22 million)	79.7	Growing, but not high growth	>100	Lost 3.8 million jobs (biggest loser by % change)	No	Primarily informal, paid work and with low pay	Source of jobs for low-skilled women workers, but precarity of work in crises
IT and other information services	27th (9 million)	25.7	High growth (highest of all sectors)	25.0	Added 300 000 jobs	Yes	Primarily formal, paid employment; majority with relatively high pay	High-growth sector with job opportunities for men, but limited job creation

Note: In the size column, comparisons are made across 36 sectors; see Annex 3 table, column 3. High-growth sectors are those with employment growth greater than 4 per cent per year between 2010 and 2019.

Source: ILO modelled sectoral estimates, November 2022.

The sectoral profiles look at employment trends over time and examine the qualitative aspects of work that impact on the livelihoods and well-being of workers and the sustainability of enterprises in the focus sectors. The remainder of this section addresses a selection of work-quality issues that are further discussed in the separate profiles.

Safety and health at work[27]

Incidence of occupational accidents and work-related diseases is high in the *agriculture, construction, manufacturing and transport* sectors. A recent global study (WHO and ILO 2021b) found that a disproportionately large number of work-related deaths, most attributed to respiratory and cardiovascular disease, occurred in workers in South-East Asia and the Pacific. The high incidence of occupational-related injuries and deaths in the region relates to the large number of people working in high-risk sectors. The identification of risk factors, including long working hours and rising temperatures,[28] and agreement on application of labour standards and guidelines to reduce or eliminate them through changes in organization and systems in the riskier sectors can bring improvements. Yet, few countries provide universal coverage of occupational safety and health services.

As the COVID-19 pandemic unfolded, workers in the health and social work sector found themselves on the front line of the battle to save lives and safeguard public health. Designated "essential workers", many in the sector saw their working hours and their work stress increase significantly.[29] Doctors, nurses and long-term caregivers put their own lives at risk and compromised the safety of their families to provide care through intensely stressful circumstances. Although acknowledged as heroes over the course of the pandemic, many of these workers continue to face decent work challenges, including low pay, gender pay gaps (WHO and ILO 2022), long hours, violence and harassment at work and above-average levels of work-related mental stress and anxiety (Koinis et al. 2015).

Climate change and environmental fragilities

Climate change and environmental fragilities are taking a heavy toll on the Asia–Pacific region. In 2021, the region accounted for 190 natural disasters, which was more than half of all disasters worldwide that occurred in that year. China, Indonesia, India, Malaysia, Philippines and Viet Nam were among the top ten countries worldwide with heavy incidence of disasters (CRED 2022). Countries in the region continue to suffer from major natural disasters, including the devastating floods in Pakistan and the record-breaking heat wave affecting some provinces of China.

Environmental hazards can take an especially heavy toll on labour markets in particular sectors. Extreme drought or flooding events destroy crops and hence have disastrous impacts on the livelihood of persons working in agriculture. Rising sea levels and extreme weather events are major risks for the garment industry, given that a large number of suppliers and factories are located in areas that are vulnerable to sea-level rise (ILO 2021d; Judd and Jackson 2021). Natural disasters can have major adverse impacts on the inflows of tourists, thereby causing damage to the tourism sector, which employs millions of workers in *accommodation and food service activities* and other tourism-related sectors in the region (ILO 2021e; Rosselló et al. 2020).

Exposure to environmental risks can lead to job losses, often affecting the informal sector disproportionately, which tends to have an important presence in those sectors that are environmentally sensitive and resource dependent. Enterprises in the informal sector in turn often fail to comply with standards of occupational safety and health, exposing their workers to greater risk, including in cases of natural disasters and environmental degradation. Often it is those people and workers who are already marginalized within societies, who are particularly vulnerable to the effects of environmental degradation including climate change (ILO 2022k).

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[27] At the 110th International Labour Conference in June 2022, a resolution was adopted to add the principle of a safe and healthy working environment to the ILO's fundamental principles and rights at work. The two Conventions now added to the list of core Conventions are the Occupational Safety and Health Convention, 1981 (No. 155) and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187).

[28] The ILO (2019b) estimates that by 2030, 2 per cent of total working hours worldwide could be lost every year due to the impact of heat stress.

[29] The 2023 edition of the ILO *World Employment and Social Outlook* will focus on essential workers and the means of action to improve conditions of work on par with the social value of occupations that are integral to a well-functioning society.

Labour migration and demand shocks

Agriculture, the garment sector, manufacturing, construction, accommodation and food service activities and private household (including domestic) work among the focus sectors are those that absorb large numbers of labour migrants in the Asia–Pacific region. In Malaysia, for example, migrant workers accounted for around a third of total employment in the *agriculture sector* (ILO forthcoming_a).[30] This includes work on plantations, including palm oil and rubber. In Brunei Darussalam, for instance, migrant workers accounted for nearly 80 per cent of total employment in construction in 2019 (57 per cent for industry overall). Where production within certain sectors depends on the flow of migrant workers, the treatment of such workers and the governance of labour migration within host countries has taken on great importance, especially with the surge of labour demand stemming from the reopening of international borders.

The *private households with employed persons* sector is unique in the International Standard Industrial Classification of All Economic Activities (ISIC) framework as the only category to link to an employment relationship and place of work. Types of workers that might fall into this category are maids, cooks, babysitters, tutors, gardeners and drivers. This is the sector in which nearly all domestic workers will be counted.[31] Domestic workers provide essential services yet are frequently without access to rights and protections (ILO 2021f). Many of them endure strenuous working conditions and are vulnerable to violence and harassment and even restriction of movement. In the Asia–Pacific region, the share of job losses among domestic workers during the COVID-19 pandemic was larger than for all other sectors (section 3.5). Many migrant domestic workers were left stranded without work or social assistance in foreign countries.

The COVID-19 crisis was also especially difficult on workers in the tourism sector, including persons working in *accommodation and food service activities*. The ILO (2021e) found that job losses in tourism-related sectors were four times greater than in non-tourism sectors. Because many workers in the sector are labour migrants,[32] they fell outside the scope of any pandemic-related government assistance granted to enterprises and workers in the sector. With scores of migrants pushed outside their host countries during the pandemic and finding the return pathway difficult, many tourism establishments now report labour shortages as an added burden in their struggle to return to normal.

Gender-based discrimination and occupational segregation

Occupational gender segregation, whereby men and women tend to work in different professions and sectors, is obvious in several of the focus sectors. *IT and other information services, construction* and *transport* remain firmly in the domain of men, while *health and social work* and *private household work* are female domains (with other sectors falling in between). With construction and transport being outlets for low-skilled workers, one can argue that low-skilled female workers have opportunities in other sectors and are therefore not necessarily overly penalized by their lack of access to these two domains. But when access is denied in a high-skill sector that offers opportunities for formal, better paid jobs, such as the *IT and other information services* sector, then the occupational gender segregation is clearly problematic.

The IT industry has been a boon for jobs in all subregions, but especially in South Asia, where employment growth was greater than a thousandfold between 2001 and 2021. Both men and women benefited from the job opportunities in the new sector. Yet, in 2021, women held only 19 per cent of IT jobs in South Asia. Even though this is a larger female share than in other non-public service sectors, it is not nearly large enough, given the numbers of women now engaging in engineering education and emerging in larger numbers than men with tertiary degree (Raghuram et al. 2017). Improvements over time are reported, but barriers to entry remain for women in the IT sector and career pathways in the sector are limited for women when compared to men.

Subcontracting and gig work

The emergence of a variety of digital innovations over recent years has allowed consumers and enterprises to access the supply of certain services in a new way. Gig work, including digital platform work, has been on

[30] The numbers are likely underestimated, given the difficulty of counting irregular migrants, who are among the thousands in many Asian countries.

[31] Domestic workers employed through a service agency are not captured in the industrial classification. Still, approximating the measure of domestic work through the ISIC is considered the best means (see ILO 2011 for more information).

[32] ILO (forthcoming_a) reports that 66.5 per cent of workers in the accommodation and food service activities in Brunei Darussalam are migrants.

the rise in the region. During the COVID-19 pandemic, an increasing number of workers resorted to digital platform work in the absence of employment opportunities elsewhere (ILO 2021g). The transport sector is a prominent example of a sector in which some of the services – specifically taxi and delivery – have been increasingly accessed through digital platforms.

Workers who work for the digital platforms are formally categorized as self-employed or independent contractors by the platform in almost all countries (ILO 2021g). In practice, however, their work often closely resembles the work of employees of an enterprise, especially in cases where platforms control the task distribution and provide limited options for workers to reject the task at hand. The blurriness of employment relationships creates some gaps in regulation for decent work because many relevant labour law provisions are applicable only to employees. Countries in the region have started, to work on closing these gaps. The Singapore Ministry of Manpower, for example, recently introduced an Advisory Committee on Platform Workers, which is expected to publish recommendations on the improvement of platform workers' working conditions, with labour legislation to possibly ensue.[33]

Practices of multilayer contracting and resulting triangular employment relationships, whereby workers are separated from their ultimate employer by contractors or labour agents, exacerbate the vulnerability of those workers in many sectors. In such arrangements, workers are typically not granted the same protections under the labour laws and find it difficult to challenge employers in disputes on wage payment or other abuses. Such practices are especially common in the *construction* sector but also in various production jobs within the *manufacturing* sector and domestic work (Huang 2022; ILO 2016a).[34]

3.3 Changing patterns in employment by sector

▶ Highlights

- The three sectors with highest employment growth rates over the three decades between 1991 and 2021 in the Asia–Pacific region were IT and other information services, other business sector services and real estate activities.
- Most of the sectors with high employment growth (in percentage change) in the region absorbed mainly male workers. For instance, in the region's highest growth sector, IT and information services, only one in four jobs (25 per cent) added between 1991 and 2021 went to women.
- The top five sectors of employment growth in volume (numbers of additional workers) from 1991 to 2021 were wholesale and retail trade (adding 166 million workers), construction (adding 125 million workers), manufacturing (adding 92 million), accommodation and food service activities (adding 54 million workers) and education (adding 44 million workers). In total, these five sectors added 481 million workers over the three-decade period, while the five high-growth sectors (in percentage change) added slightly more than 70 million jobs.

3.3.1 Shrinking sectors

At the aggregate level, the declining sectors – those with a long-term contraction in employment (from 1991 to 2021) – are agriculture and the manufacturing of textiles, wearing apparel and leather (garments). Since 1991, 175 million workers have moved out of the agriculture sector. The garment sector saw employment shrink by 2.4 million. This loss of jobs in the garment sector has been specific to women: Jobs of women in the sector shrank by 11 per cent from 1991 to 2021 (a decrease of 5 million) while male employment in the sector grew by 9 per cent (adding 2.6 million jobs). This shift in the gender balance of jobs in the garment sector is to a large extent driven by subregional shifts within the sector, as South Asia (where the share of women in garment employment is relatively low) increased its share of garment employment in the region (ILO 2022h).

[33] Charles Chau, "Gig Workers in Singapore to Receive More Protection," *hrmasia*, 14 October 2022.

[34] A survey of the garment and construction sectors in three cities in India found that three quarters of the factories covered had recruited workers through unlicensed contractors. Less than 2 per cent of workers surveyed had a written contract (ILO 2016a, box 2.7).

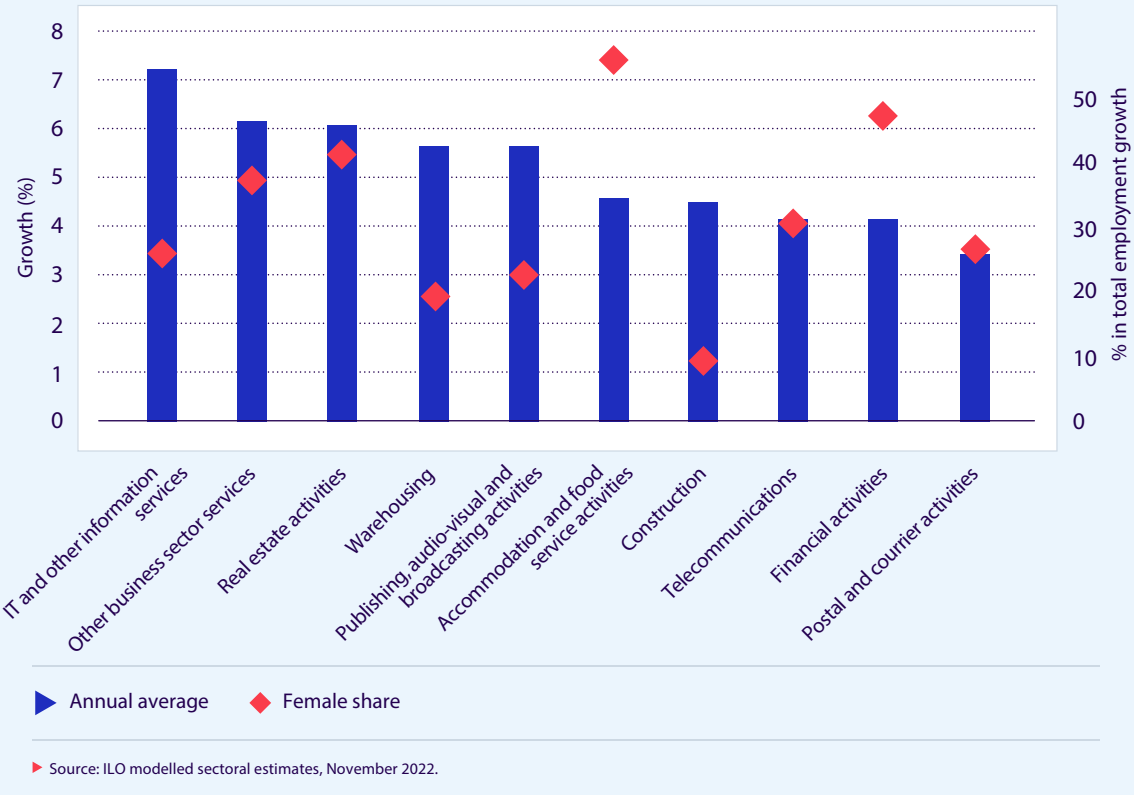
The garment sector has been an important source of economic growth for many countries and has opened up first-time paid employment opportunities for millions of women, especially in South Asia, with some positive gains to women's economic empowerment (Al Mamun and Hoque 2022). The negative employment growth in the sector is to a large extent driven by East Asia, where garment employment nearly halved during the past three decades. The garment sector in South Asia and South-East Asia has been growing over time, with important employment gains for women (ILO 2022h).

Both the agriculture and garment sectors continue to be significant in their employment share. In 2021, the agriculture sector in the Asia–Pacific region had a 30 per cent employment share (with 563 million workers) and the garment sector maintained 3.8 per cent of total employment (with 71 million workers) (see also the discussion on manufacturing subsectors in section 3.1.2).

3.3.2 High-growth sectors

The ten sectors of highest employment growth over the three decades of 1991 to 2021 in the Asia–Pacific region are, in descending order of average annual growth rate: IT and other information services; other business services; real estate activities; publishing, audio-visual and broadcasting activities; warehousing; accommodation and food service activities; construction; telecommunications; financial activities; and repair and postal and courier activities (figure 23). In these sectors, the average growth rate per annum ranged from 7.2 per cent (IT and other information services) to 3.4 per cent (postal and courier activities). By comparison, the annual growth rate for employment on the whole in the region was 1.2 per cent.

Figure 23. Top ten employment growth sectors (average annual rates) and female share in employment growth, Asia and Pacific, 1991–2021 (percentage)



Source: ILO modelled sectoral estimates, November 2022.

Most high-growth sectors absorb more men than women.

Unfortunately, in terms of inclusion and gender equality, most of the employment gains in the high-growth sectors accrued to male workers. Only one of the top ten growth sectors favours employment of women – accommodation and food service activities, where 55 per cent of increased employment (30 million of the added 54 million jobs) between 1991 and 2021 went to women. In the highest-growth sector of IT and other information services, only one in four jobs (25 per cent) went to women. Across all sectors, only five had higher employment gains for women than men between 1991 and 2021 (table 5).

▶ Table 5. Sectors with female share of employment growth higher than 50 per cent, Asia and Pacific, 1991–2021

Sector	Female share of job gains (%)
Private households with employed persons*	100
Health and social work activities	78.6
Education	72.2
Arts, entertainment, recreation and other service activities	61.6
Accommodation and food service activities	54.8

Note: * = Employment of men in private households with employed persons decreased over the period.
Source: ILO modelled sectoral estimates, November 2022.

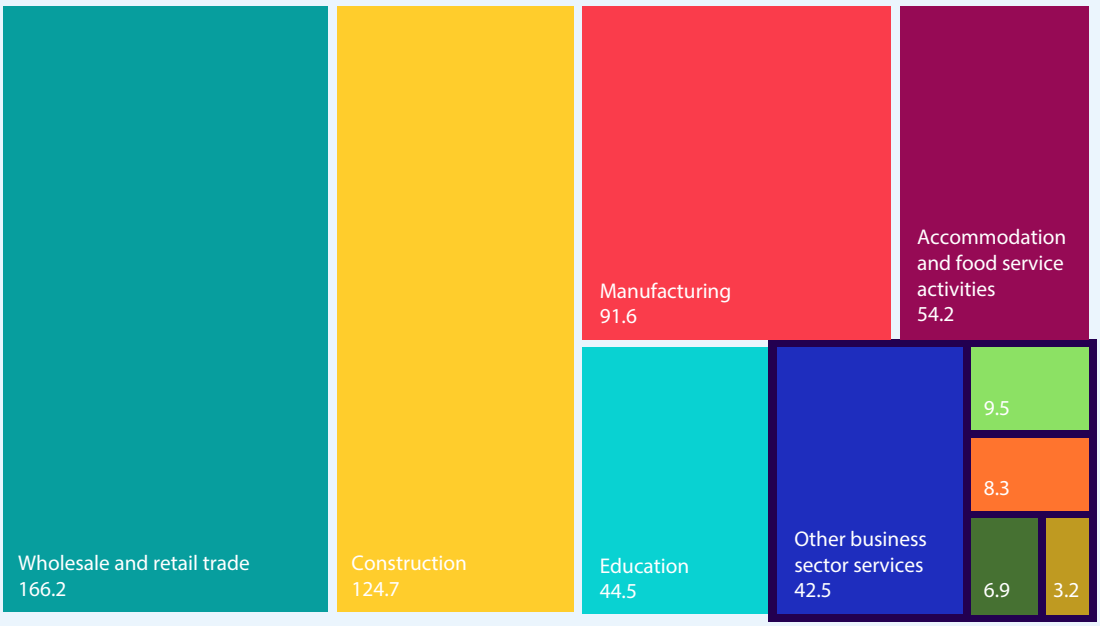
The segregation of men into sectors, such as IT, that offer higher earning potential, with women remaining in lower-paying sectors (accommodation and food service activities, for example), is stalling the progress on closing the gender wage gaps at the aggregate national level. Making progress towards wage equity will require battling it from several fronts: (i) encouraging women to work in higher-paying sectors and occupations; (ii) educating and training women in fields with higher wage potential (like IT); (iii) overcoming norms of discrimination on training, hiring and promotion of women in male-dominant occupations and sectors; and (iv) promoting pay equity at the enterprise level in all sectors.

High growth and large source of jobs are not synonymous.

The high-growth sectors are not always significant sources of job creation for the region. The IT and other information services sector is a case in point. The sector experienced 7.2 per cent annual average employment growth from 1991 to 2021, yet only 9.4 million persons worked in the sector in 2021, corresponding to 0.5 per cent of total employment. More than 8 million jobs were added in the sector over that period. For comparison, the wholesale and retail trade sector grew at an annual average rate of 3.1 per cent, added 166 million workers and employed 277 million men and women in the region in 2021.

The top five sectors of employment growth in volume (numbers of additional workers from 1991 to 2021 were wholesale and retail trade (adding 166 million workers), construction (adding 125 million workers), manufacturing (adding 92 million workers), accommodation and food service activities (adding 54 million workers) and education (adding 44 million workers). In total, these five sectors added 481 million workers over the three decades, while the top five high-growth sectors (in percentage change) added slightly more than 70 million jobs (figure 24).

Figure 24. Employment increase (millions), top five sectors in nominal growth and top five sectors in percentage growth, Asia and Pacific, 1991–2021



Note: The high percentage growth sectors are outlined in black; see also figure 23.
Source: ILO modelled sectoral estimates, November 2022.

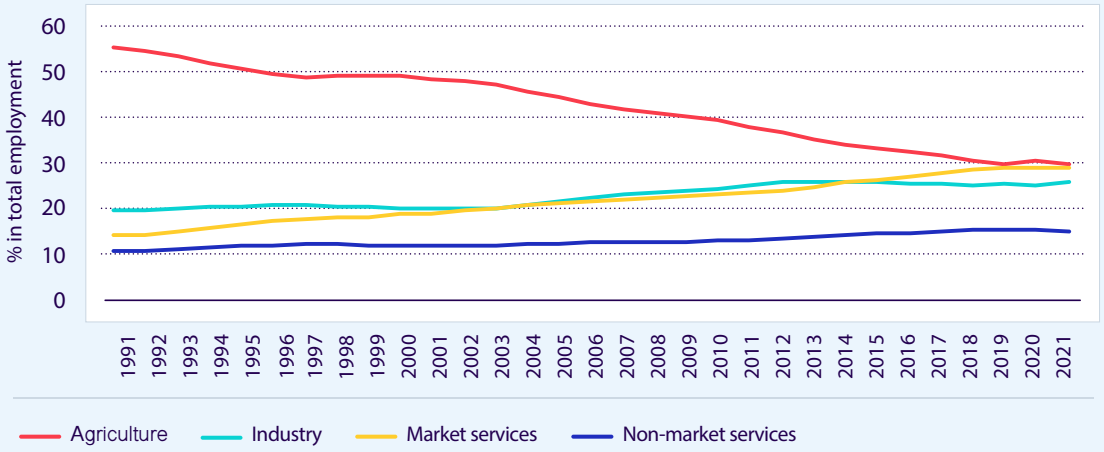
3.3.3 Sectoral shifts over time

Among the most dramatic shifts of modern times in Asia and the Pacific is the movement out of agriculture sector employment and into the industrial and services sectors.[35] Over the three decades from 1991 to 2021, the share of agricultural employment in the region declined by 25 percentage points, evolving from a dominant 55 per cent share in total employment to 30 per cent and nearly overtaken by the share of employment in market services (figure 25).

As the share of employment in agriculture declined, employment in industry grew by 6 percentage points (2 per cent average annual growth), and employment in services grew by 19 points (3 per cent average annual growth), divided between market services (15-point increase and 4 per cent average annual growth) and non-market services (5-point increase and 2.3 per cent average annual growth).

[35] This section looks at trends over time across four broad sectoral categories: agriculture, industry, market services and non-market services. Industry includes mining, manufacturing, utilities and construction. Market services include wholesale and retail trade; transport; warehousing; accommodation and food service activities; and various business and administrative services (postal and courier activities; publishing, audio-visual and broadcasting activities; telecommunications; IT and other information services; financial activities; and real estate activities and other business service activities). Non-market services include public administration and defence; education; health and social work activities; arts; entertainment, recreation and other service activities; and private households with employed persons. See column 5 of the sectoral groupings in the Annex 3 table.

Figure 25. Employment, by broad sector, Asia and Pacific, 1991–2021

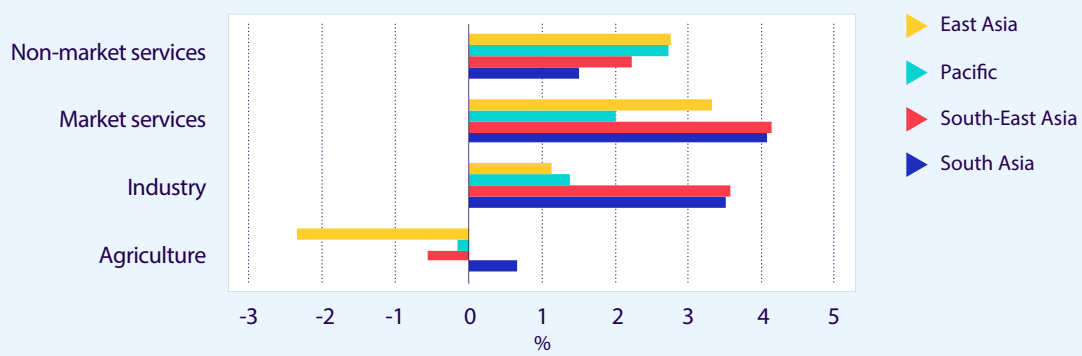


Source: ILO modelled sectoral estimates, November 2022.

The structural changes in employment differ by subregion. The shift away from employment in agriculture occurred in all subregions but less so in South Asia (figure 26). But even in South Asia, the average annual employment growth rate in the agriculture sector was low, at 0.3 per cent, over the three decades; and agricultural employment started to decline as of 2005 (Annex 2, figure A3). Both industrial employment and employment in market services experienced strong growth, in excess of 3 per cent per year, in South Asia and South-East Asia. In East Asia, the rapid movement of jobs away from agriculture was offset by the rapid increase in services jobs, in market and non-market services, while industrial employment grew at a slower pace, at 1.2 per cent per year. Services overtook agriculture as the dominant source of jobs in 2008 in East Asia and in 2010 in South-East Asia.

The sectoral structure of employment in the Pacific stands out among the others. Employment in agriculture was already low in 1991, at only 12 per cent of total employment, and employment in services was already dominant, at 67 per cent of total employment. The structural shifts in employment over time were thus much less pronounced than in other subregions (Annex 2, figure A3). The average annual employment growth in the subregion from 1991 to 2021 was highest in non-market services, at 2.6 per cent.

Figure 26. Change in sectoral employment, Asia and Pacific subregions, 1991–2021 (average annual percentage)



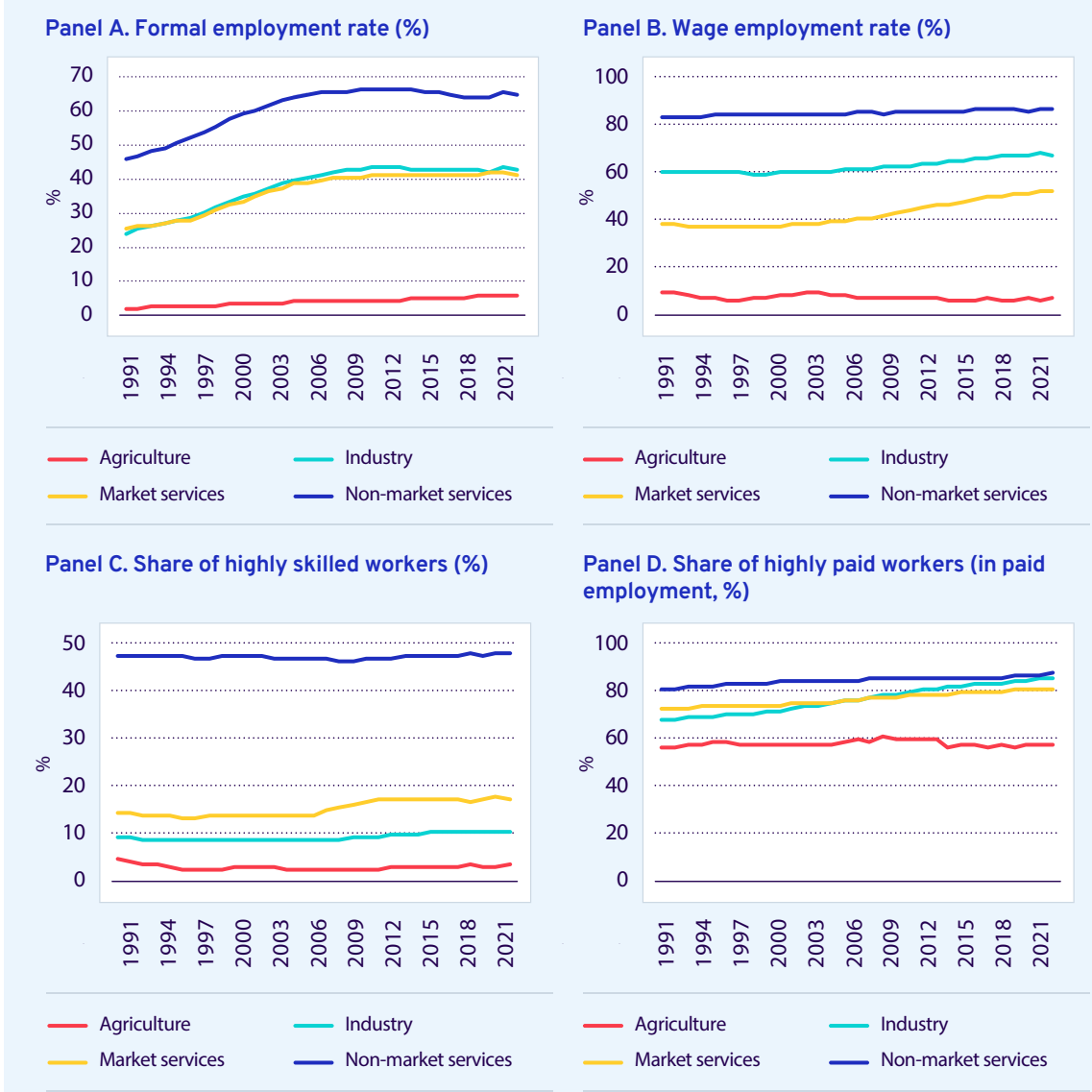
Note: See also Annex 2, figure A3 for the time series of employment share by sector for each subregion.
Source: ILO modelled sectoral estimates, November 2022.

Decent work indicators by sector over time

Figure 27 shows the progression of the qualitative indicators over time for the four broad sectoral groupings of agriculture, industry, market services and non-market services. With a few exceptions, there are no significant improvements observable on the various aspects of work quality over the three decades in the Asia–Pacific region. But there are notable findings:

- Informality is dominant in all broad economic sectors, but non-market services where the share of jobs that are formal surpassed 50 per cent from 1994 (reaching 65.2 per cent in 2021). The share of formal employment in the other sectors has increased over time, especially in the industrial sector and in market services, but with rates remaining low.[36]
- Employment in the agriculture sector remains at the lowest end of the work-quality spectrum on all measures – with rampant informality, mainly in low-skill self-employment jobs and low pay among those earning wages.
- On the other end of the spectrum is employment in non-market services, where the formal nature of work for the majority is also reflected in the dominance of wage employment (above 80 per cent), opportunities for highly skilled workers and comparative rarity of low-paid jobs.
- There has been a slight uptick in the share of wage employment among persons working in market services. The share of highly skilled workers and highly-paid workers are also increasing slowly within the sectoral group. For industrial workers, the increase in high-skill and highly paid employment is weak, but the share of highly paid workers in the sector has increased by 13 percentage points since 1991, which is more than the other sectoral group.

Figure 27. Characteristics of employment indicators, by broad sector, Asia and Pacific, 1991–2021



Note: The indicators are presented as the share in total employment, except for highly paid workers, which is as a share of total wage employment.
Source: ILO modelled sectoral estimates, November 2022.

[36] Recent analysis confirmed that economic growth in developing economies has a stronger link to decreasing informality in the industrial sector (mining, manufacturing and utilities). See Chacaltana, Bonnet and Garcia 2022.

3.4 Sectoral shifts, labour productivity and development

Highlights

- At the sectoral level, labour productivity growth was highest in agriculture, increasing by 5.6 per cent on average per year in the period of 2000–20. Labour productivity in industry grew by 3.2 per cent per year, by 1.9 per cent in market services and 1.3 per cent in non-market services,
- Strong records of economic growth among economies in the region corresponded to employment shifts into industry and market services. Economies with low growth rates (with average annual GDP growth of 3 per cent or less) saw lower employment shifts into industry and market services and higher employment gains in non-market services.
- In the years before the COVID-19 crisis (2015–19), the contribution of structural transformation to labour productivity growth declined considerably, indicating a slowdown of structural transformation. Still, over the longer period 2000–20, the process of structural transformation contributed more to labour productivity growth in the region than did "within sector" improvements.

Industry-led growth has worked well for many of Asia's advanced economies.

Development storylines have a strong (and linked) sectoral component.[37] The traditional development pathway that was followed in the advanced economies of East Asia in the mid-twentieth century was that a large share of workers moved away from the agriculture sector into the State-supported industrial sector and into services, with the latter taking prominence towards the end of the twentieth century. The timeline of sectoral employment shifts in East Asia that is seen in Annex 2, figure A3 reflects the traditional pathway of structural transformation. With the rise of industrial employment came an increase in waged, mainly formal employment as governments established systems of labour market governance to direct labour supply towards export-oriented, primarily large enterprises.[38] Labour codes established the rules of worker protection also for the increasing number of services sector enterprises, although with numerous exclusions based on the size of the enterprise and/or types of contracts.

In recent years, as more and more jobs have fallen within the categories of exclusion (temporary workers, workers engaged in digital platforms and, most commonly, informal workers), there has been an erosion of progress on some decent work indicators, as demonstrated in the previous section. Such regressions have occurred in both developing and advanced economies of the region.

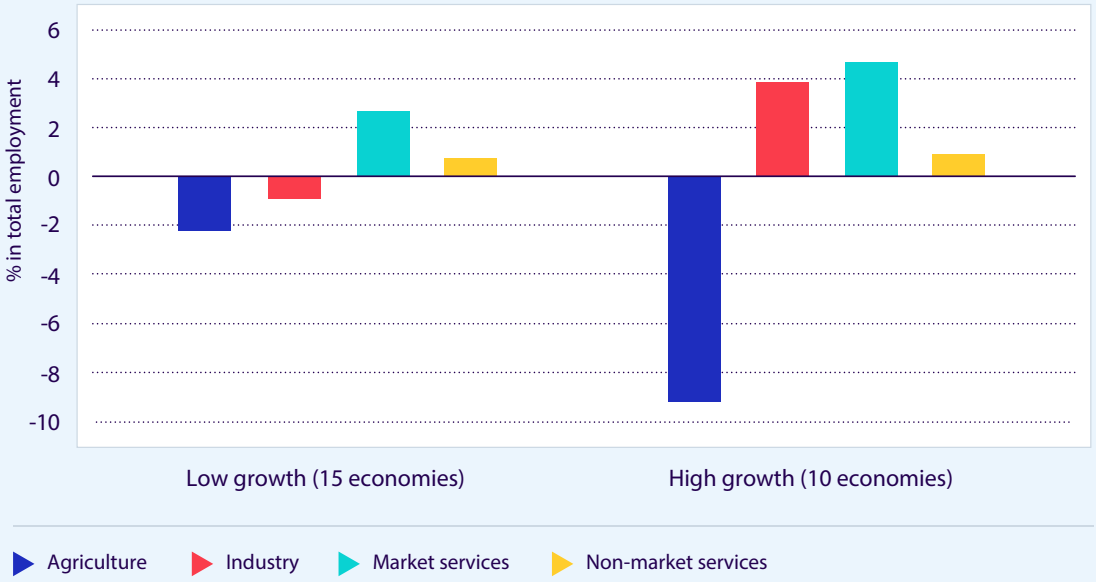
In the modern era, there is limited potential for sustainable economic growth driven by manufacturing.

There is increasing consensus that the window of opportunity on the traditional development pathway – manufacturing-driven – is quickly closing for countries that remain in the early stages of industrialization (Newfarmer, Page and Tarp 2018; ADB 2013). At the country level, at least in the pre-COVID-19 decade of 2010–19, the high-growth economies (with average annual GDP growth greater than 6 per cent) of the Asia–Pacific region were those associated with larger employment shifts into industry (and market and non-market services) (figure 28). The lower-growth economies (with average annual GDP growth of 3 per cent or less) showed employment loss in both agriculture and industry. Among the 15 economies with comparatively lower growth over the period, the share of employment in industry increased only in Brunei Darussalam, Thailand and Vanuatu (not shown).

[37] Structural transformation has been widely discussed in the socio-economic literature. See, as examples, Chacaltana, Bonnet and Garcia 2022; ILO 2020c; Newfarmer, Page and Tarp 2018; Rodrik et al. 2016.

[38] A detailed portrait of the development storyline of certain advanced economies in the region is provided in Debanes, Castellvi and Dwiyanti 2021.

Figure 28. Change in employment share, by broad sector, low- and high-growth economy groupings, 2010–19 (percentage point)



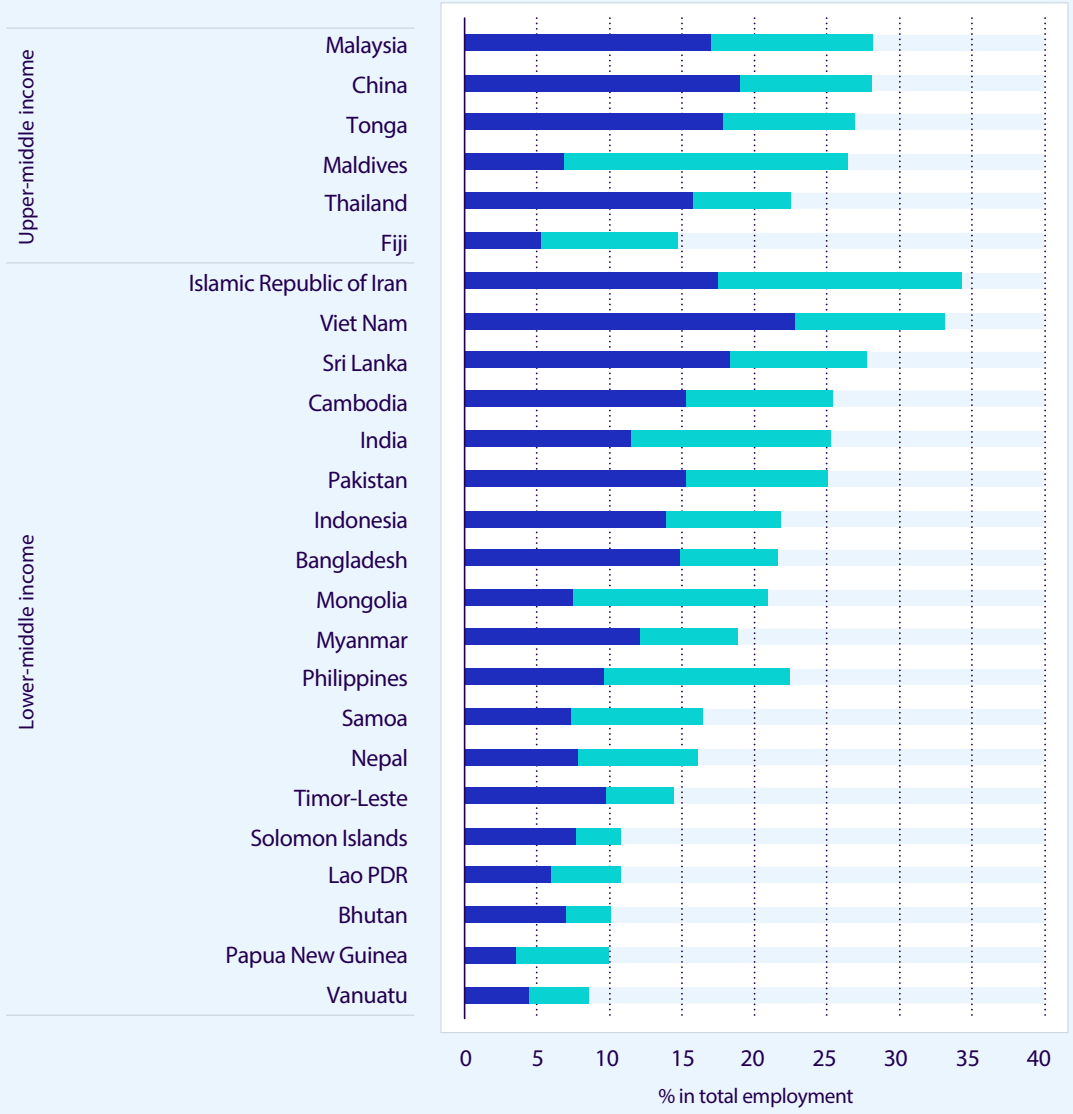
Note: A low-growth economy is defined as having an annual GDP growth rate for the period 2010–19 of 3 per cent or less. A high-growth economy is one with an annual GDP growth rate of 6 per cent or more. The 15 low-growth economies are Australia, Brunei Darussalam, Fiji, Hong Kong (China), Islamic Republic of Iran, Japan, Macau (China), New Caledonia, New Zealand, Republic of Korea, Samoa, Taiwan (China), Thailand, Tonga and Vanuatu. High-growth economies are Bangladesh, Cambodia, China, India, Lao People's Democratic Republic, Maldives, Mongolia, Myanmar, Philippines and Viet Nam. The figure shows the simple average of changes in employment shares across economies within the respective groupings.

Source: ILO modelled sectoral estimates, November 2022, and IMF, World Economic Outlook, October 2022.

Taking the structural transformation processes of some of the region's current industrial powerhouses – China, Japan and Republic of Korea – as markers, industrial employment shares are likely to reach at most 30 per cent before falling again to between one fifth and one fourth of the workforce. Employment in manufacturing in Japan and the Republic of Korea was around 16 per cent of total employment in 2021, while the share in China hovered around 20 per cent for three decades. Many of the region's middle-income economies are already within these ranges of industrial and manufacturing employment shares (figure 29). Exceptions are countries in the Pacific, where industrial employment remains low due to the small domestic markets and the geographical constraints in developing export-oriented manufacturing.

There could be some potential in boosting manufacturing employment, for example, in India, Mongolia and the Philippines. Yet, it will remain difficult for these countries to compete for manufacturing foreign direct investment against countries with lower costs and more advanced manufacturing infrastructure and logistics. Also, the polarization of enterprises in developing economies, with small, low-productivity and informal enterprises struggling to compete against large, high-productivity and formal enterprises, continues to limit the expected transformative spillovers of manufacturing growth (ILO 2022g). Developing economies with very low manufacturing employment, such as the Lao People's Democratic Republic, could still benefit from late industrialization, but this will require a surge in infrastructure development before it can entice investment away from neighbouring countries, such as Cambodia and Viet Nam.

Figure 29. Industrial employment share, middle-income economies of Asia and the Pacific, 2021 (percentage)



Source: ILO modelled sectoral estimates, November 2022.

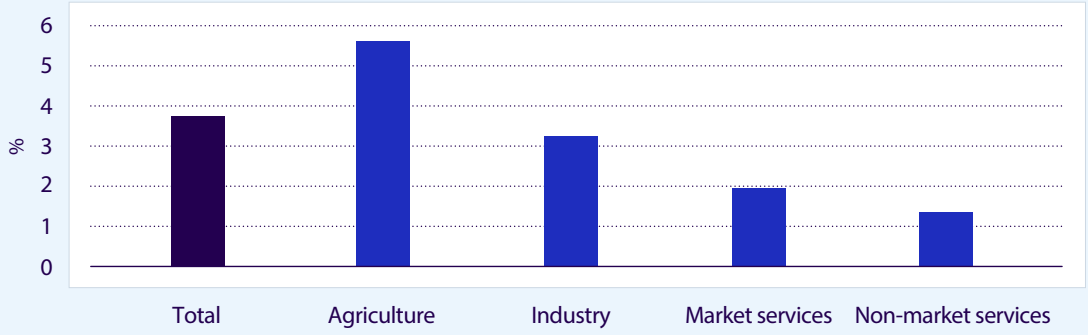
The labour productivity gains of structural transformation have narrowed.

Labour productivity, measured as value added per worker, has been on the rise over the past two decades in the Asia–Pacific region, with an average annual growth rate of 3.8 per cent in the 2000–20 period. Agriculture had the strongest gains in labour productivity, increasing by 5.6 per cent on average per year, with the continued adoption of farm machinery in such countries as Bangladesh, Philippines and Thailand being one of the likely drivers (ADB 2021). During the same period, labour productivity in industry grew by 3.2 per cent per year, while labour productivity in market and non-market services trailed, with annual average growth rates of 1.9 per cent and 1.3 per cent, respectively (figure 30).

After the onset of the COVID-19 pandemic, large job losses combined with less-steep drops in value added resulted in an increase in labour productivity in 2020. Much of this gain, however, was due to a compositional effect, with smaller, less-productive enterprises and lower-paid workers disproportionately impacted, relative to the larger, more-productive enterprises and high earners (ILO 2021c).

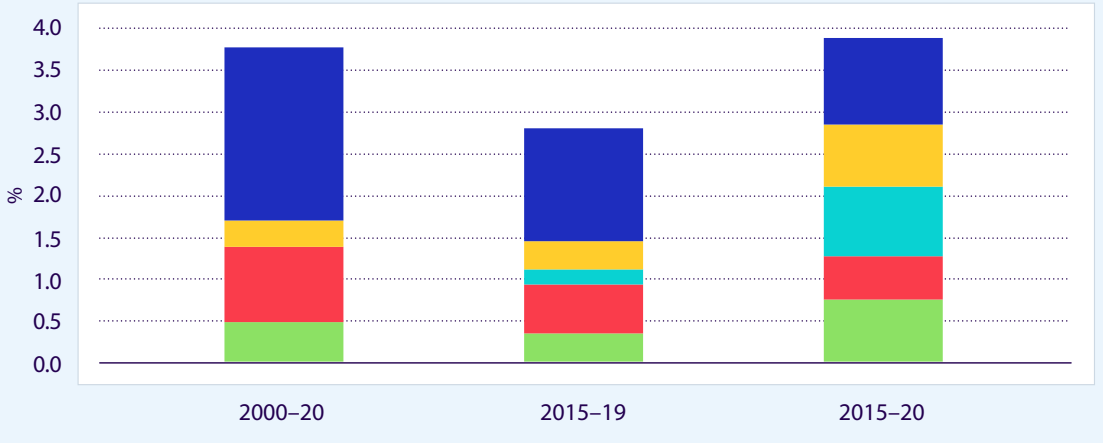
A decomposition of labour productivity growth in the Asia–Pacific region – into the component that can be associated with improvements in labour productivity within each sector and the component that can be associated with shifts of employment into higher-productivity sectors (structural transformation) – provides valuable insights into the drivers of that growth. Over the two decades between 2000 and 2020, the contribution of structural transformation to labour productivity growth was larger than the contribution of labour productivity improvements within sectors (figure 31). In the five years before the COVID-19 crisis, between 2015 and 2019, the contribution of structural transformation to labour productivity growth declined considerably, indicating a slowdown of structural transformation. As a result, an important channel of labour productivity growth narrowed, contributing to a slowdown in economic growth. During the COVID-19 crisis, the contribution of structural transformation to aggregate labour productivity growth further deteriorated when many workers lost their job in sectors with relatively higher productivity and took on jobs in sectors with relatively lower productivity, such as agriculture.

Figure 30. Labour productivity growth, total and by broad sector, Asia and Pacific, 2000–20 (average annual percentage)



Note: Data for 24 countries and territories in the region were assessed. Labour productivity was calculated as value added per worker.
Source: ILO modelled estimates and the Asian Development Bank's Multi-Regional Input-Output Database.

Figure 31. Decomposition of labour productivity growth, Asia and Pacific, selected periods (average annual percentage)



Note: Labour productivity was calculated as value added per worker. The decomposition followed the methodology described in Appendix 1, step 2 of ILO 2013b. Data for 24 economies in the region, including 35 economic sectors (see column 2 of the Annex 3 table), were assessed. The different components of labour productivity growth add up to annual average labour productivity growth during the respective period. The components measure the percentage points of the total growth rate that can be attributed to employment shifts into higher productivity sectors or to labour productivity improvements within different sectors.
Source: ILO modelled estimates, November 2022, and the Asian Development Bank's Multi-Regional Input-Output Database.

It is safe to say that new labour absorption in the middle-income economies of the region will be primarily in the services sector. There is little room for large-scale expansion of jobs in the industrial sector, especially as enterprises increasingly focus on capital-intensive production models. The alternative growth outlet thus remains the services sector, which is highly polarized between formal, skill-intensive and high-wage jobs and the contrary – largely informal, labour-intensive, low-wage jobs and even the underappreciated agriculture sector. To lessen the productivity gaps and transform the decent work content of jobs in services and agriculture, it is important to remember that productivity gains can be driven also by cooperative labour-management relations, social dialogue and compliance with labour standards, in addition to technology (Grimshaw, Koukiadaki and Tavora 2017; Buchele and Christiansen 1999).

The stagnation of progress on the selected decent work indicators (discussed in section 3.3.3) indicates a disconnect between the region's record of strong economic growth and job quality. Whereas structural shifts marked by growing industrial employment and declining agriculture expanded the creation of decent work for some countries in a bygone era, this does not any more appear to be the case. A consequence is the widening of wage gaps as the relative share of highly skilled workers in total wages grows (Martorano, Park and Sanfilippo 2016). The challenge moving forward will be to increase and sustain public investment in labour market institutions to achieve decent work outcomes in all sectors, but especially those where the majority of people work (see also section 4).

3.5 Sectoral employment and COVID-19 impact

▶ Highlights

- Employees in private households, including domestic workers, was the sectoral grouping with the largest contraction of workers during the COVID-19 period (2019–21). Nearly 4 million jobs were lost in the sector, a decline of 13.8 per cent.
- The larger employment losses of women from 2019 to 2021 is partly explained by the sectoral composition of job losses. Five of the ten sectors that experienced the sharpest job losses had large concentrations of women workers. Women were also well represented in six of the sectors that showed job growth during the period, although not in the four sectors of strongest growth (construction, warehousing, utilities and IT and other information services).
- Employment losses in the manufacturing sector affected 15 of 34 countries or territories in the region.
- A total of 22 million jobs were added between 2019 and 2021 across ten sectors while 16 million jobs were shed cumulatively among 11 shrinking sectors.
- The pandemic resulted in a reversal of longer-term trends in declining shares in agricultural employment in at least 6 countries.

As of 2021, the sector that remained the most affected by job losses – by far – was private households with employed persons, a category that includes domestic workers, drivers, gardeners and others typically engaged in low-skill, manual labour for private households. Nearly 4 million workers lost employment in private households due to the pandemic, a drop of 13.8 per cent (table 6). The decrease of male workers in private households was significantly higher than that of female workers, at 29.5 per cent and 8.6 per cent, respectively. The sector remains soundly female-dominated, however, with three of four workers being women in 2021. As an important source of employment for women (2.5 per cent of total female employment in 2021) and given the devastating impact on jobs during the COVID-19 crisis, the sector is covered in a Sectoral Labour Market Profile [39] (see also section 3.2).

[39] See https://www.ilo.org/asia/publications/apeso/lang--en/index.htm.

▶ Table 6. Employment change, Asia and Pacific, 2019–21 (percentage)

Sector	% change	Female-prominent sector
Private households with employed persons	-13.8	Yes
Mining	-4.6	
Transport	-4.6	
Telecommunications	-4.4	
Arts, entertainment, recreation and other service activities	-4.0	Yes
Accommodation and food service activities	-3.0	Yes
Education	-2.3	Yes
Public administration and defence; compulsory social security	-2.1	
Publishing, audio-visual and broadcasting activities	-1.9	
Financial activities	-0.9	Yes
Postal and courier activities	-0.8	
Other business sector services	0.1	Yes
Agriculture	0.4	Yes
Manufacturing	0.6	Yes
Real estate activities	1.9	Yes
Wholesale and retail trade	1.9	Yes
Health and social work activities	3.6	Yes
Construction	5.4	
Warehousing	6.0	
Utilities (electricity, gas etc)	8.0	
IT and other information services	10.5	

Note: A "female-prominent sector" is defined here as one with a female share of total employment of at least 35 per cent in 2021.
Source: ILO modelled sectoral estimates, November 2022.

Employment shrank between 2019 and 2021 in 11 of the 21 sectors examined (table 6). The loss of jobs in the accommodation and food service activities links to the severe drop in tourism in many countries in the region. The sector's steady expansion in contribution to total employment in the Asia–Pacific region was halted by the COVID-19 shock. In 2021, employment in the sector remained at least 5 per cent below pre-crisis figures in three fifths of the Asian–Pacific countries. Employment losses remained at least 10 per cent below the 2019 level in ten countries.[40]

The larger employment losses of women discussed in section 2.2 is partly explained by the sectoral composition of job losses. Five of the ten sectors that experienced the sharpest job loss were those with large concentrations of women workers (table 6). Meanwhile, women were also well represented in six of the sectors that showed job growth during the period, although not in the four sectors of strongest growth (construction, warehousing, utilities and IT and other information services).

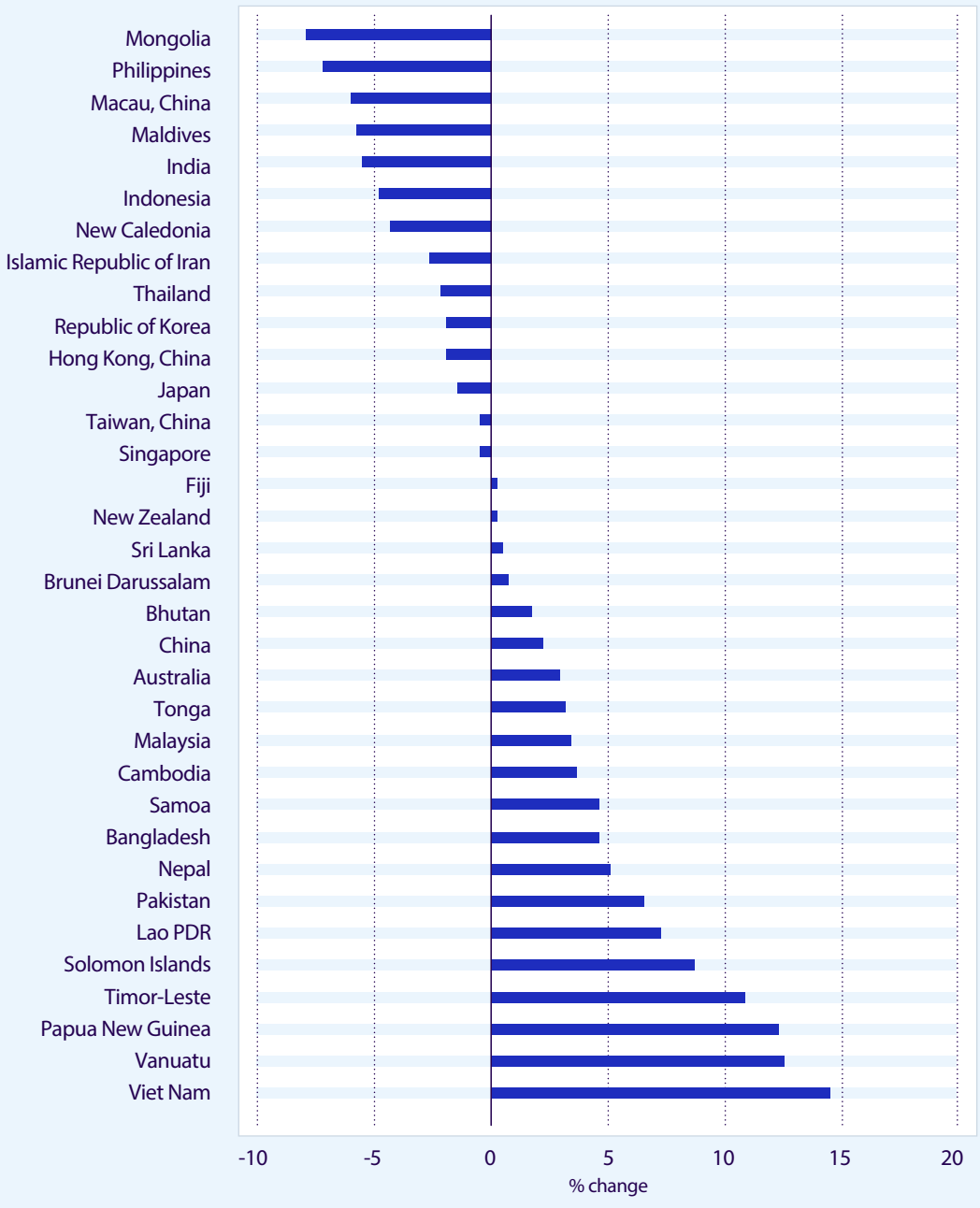
The employment losses in the manufacturing sector affected 15 countries (of the 34 in the region covered by the dataset). Manufacturing employment losses (2019–21) were especially high in Mongolia (7.7 per cent),

[40] Afghanistan, Australia, Brunei Darussalam, Hong Kong (China), India, Islamic Republic of Iran, Japan, Mongolia, Myanmar and the Philippines. For a more detailed discussion on the accommodation and food service activities sector, see the Sectoral Labour Market Profiles at https://www.ilo.org/asia/publications/apeso/lang--en/index.htm.

the Philippines (7.0 per cent), Macau, China (6.0 per cent), Maldives (5.6 per cent), India (5.5 per cent) and Indonesia (4.8 per cent) (figure 32). On the other hand, manufacturing employment experienced sizable increases in certain South-East Asian countries (Cambodia, Lao People's Democratic Republic, Malaysia, Timor-Leste and Viet Nam), in the Pacific (Australia, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu) and in Bangladesh, Nepal and Pakistan in South Asia.

Among the sectors that saw employment growth during the COVID-19 crisis were (in order of increasing scale) other business sector services; agriculture; manufacturing; real estate activities; wholesale and retail trade; health and social work activities; construction; warehousing; utilities and IT and other information services (table 6). These sectors either grew through the entirety of the pandemic (only IT and other information services) or overcame the significant employment losses of 2020 to bounce back in 2021 with job growth that surpassed the 2019 level. Together, the sectors of positive growth added 22 million jobs since 2019 and the sectors that shed workers lost a total of 16 million jobs.

▶ Figure 32. Change in employment in the manufacturing sector, economies in Asia and the Pacific, 2019–21 (percentage)

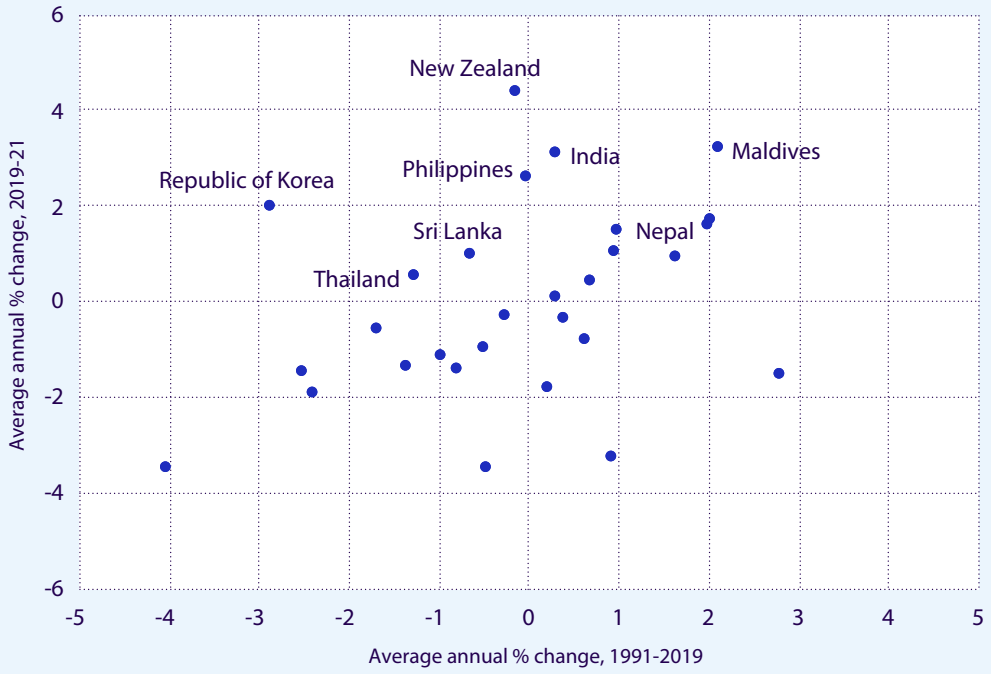


▶ Source: ILO modelled sectoral estimates, November 2022.

An examination of employment in the agriculture sector brings to light the pandemic trend of reversed urban migration in a handful of countries.[41] The long-term trend of declining agricultural employment was reversed during COVID-19 in certain countries, or employment increased in the sector at a faster pace in the COVID-19 period than in previous years, presumably as cities locked down and many urban migrants moved back to rural areas to wait it out. The countries that fit to this trend are: India, Maldives, Nepal, New Zealand, Philippines, Republic of Korea, Sri Lanka and Thailand (figure 33). In 2021, the number of agricultural workers remained elevated (from 2019) in the same countries. Whether the return to rural areas will continue beyond the crisis remains to be seen, but at least in the more advanced economies it could be a sign of shifting lifestyle choices, particularly among young persons.[42]

In developing Asia, South Asian countries in particular, the return migration during COVID-19 has stressed rural labour markets. In the Odisha State of India, for instance, returning migrants cited the lack of jobs as their greatest challenge, followed by the low wages received from existing jobs (Behera and Mishra 2021). In this case, some rural returnees received assistance through the state's Special Livelihood Intervention Plan. For longer-term sustainability and resilience through crises, however, governments in the region will need to step up their public investments in support of rural employment-generation.

Figure 33. Change in employment in the agriculture sector, economies in Asia and the Pacific, 1991–2019 and 2019–21 (average annual percentage)



Source: ILO modelled sectoral estimates, November 2022.

[41] See also the Sectoral Labour Market Profile on agriculture.

[42] In the Republic of Korea, the term "*kwichon*" is applied to those who move to rural areas. See "Young Koreans Are Moving to the Countryside to Farm", *The Economist*, 1 September 2022. The Korean Government has put in place measures to encourage such moves (Lee and Choi 2019).

4

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4. A sectoral lens for the human-centred future of work

4.1 Towards decent work promotion

With decent work outcomes closely linked to sectors of work, an important question arises: What is the pathway for increasing access to decent work in countries? There are three possible options.

1. **The supply-side empowerment pathway**. At the individual level, a person can shift out of a sector with low decent work outcomes into a sector that brings higher decent work returns. Yet, such transitions are often prevented by various barriers. Evidence shows that persons in formal jobs, persons with access to benefits (paid annual and sick leave, pensions and so on) and persons doing white-collar work requiring skills are coming from wealthier households, have a higher education level, live in an urban area and, to a certain extent, are male.[43] Building access to social capital at the household level and increasing educational access is thus one pathway (supply side) to increasing opportunities for labour market entrants to access decent jobs. This can be accompanied by increased investment from governments in active labour market policies that aim to increase the matching of labour supply and demand through skilling programmes, public employment services, employment subsidies, expanded social protection, care policies and strengthened labour market information systems, among other improvements. Supply-side interventions are oftentimes targeted to the young labour market entrants or other target groups considered to be vulnerable.

2. **The demand-side investment pathway**. Governments in the Asia–Pacific region tend to see expansion of the industrial sectors as an important component of development. In the past, industrialization and integration into global supply chains proved beneficial for economic growth and job creation. More recently, governments in many Asian countries see Industry 4.0 as the next logical step to upgrade their export-oriented industrial sectors towards higher value-added production and the high-tech services sector, also with a view to shifting the balance of national industry from foreign-owned to domestic-owned enterprises. In an assessment of Member States of the Association of Southeast Asian Nations (ASEAN), the ILO (2019) found that Indonesia, Malaysia, the Philippines, Thailand and Viet Nam all had a national plan in support of Industry 4.0. The remaining countries, without a direct plan, have embedded elements of technological advancement for economic diversification within broader planning documents. [44]

   Governments in the region spend billions on industrial policies. A significant challenge with this demand-side investment pathway to decent job creation is that the capital-intensive sectors are not major employers in the region, and the emphasis on high-skill jobs reinforces existing inequalities. It is a laudable objective to boost economic growth through the promotion of higher value-added industry and services. Nonetheless, there are trade-offs to be kept in mind. The job creation potential of certain industrial investments, in support of the manufacturing sector and IT sectors, for instance, will continue to be limited. Investments in industrial policies should be balanced with sufficient investment in labour market institutions and infrastructure to boost decent work outcomes in the sectors where workers are currently concentrated.

   In considering demand-side investment strategies, governments would be well-advised to consider the inclusive-growth returns on investments rather than just the economic-growth returns. Developing countries that support industrialization through integration into global supply

[43] For example: ILO 2017, section 3.2 and ILO 2016b.

[44] Policy measures used in support of Industry 4.0 include supply-side interventions to increase the supply of highly skilled workers through skilling and reskilling, promoting innovation through investment in research and development and direct support in the form of subsidies to fledgling entrepreneurs and technology-based enterprises.

chains have found themselves confronting the power asymmetries in those supply chains that continue to favour foreign multinationals, frequently exerting a negative influence on decent work growth, given the motivation to keep the cost of labour and the local supply costs down. Aligning demand-side investment strategies (primarily industrial policies) with decent work and inclusive growth requires policy coherence. Decent work objectives should be explicitly embedded into economic growth strategies, with results facilitated through adequate attention to labour protection and industrial relations and with adequate investments in labour market policies that support workers through their many labour market and occupational transitions (see section 4.2).

3. **The formalization pathway**. There are decent work deficits that extend beyond informality. Yet, work done in the informal economy correlates closely to most of the symptoms of such deficits. Widespread informality limits sustainable and inclusive economic development, denies fundamental principles and rights at work, is a source of unfair competition for formal businesses and deprives governments of essential revenues. Transitioning to formality is a gradual process that includes implementing policies to support the formalization of workers and enterprises that have the greatest potential to formalize and also policies to address the decent work deficits of workers and economic units in the informal economy.[45] Evidence from recent labour market trends in the Asia–Pacific region demonstrates that leaving this process to occur organically is not sufficient (see section 2.4). **Promoting a breakthrough in formalization requires that it be escalated as a national economic growth and development objective and centralized in the government planning framework for the development, delivery and monitoring of an integrated strategy**.[46]

   Within an integrated strategy, it will make sense to prioritize policy action in support of formalization within sectors – those where large shares of the population work, including policies and programmes that encourage enterprise formalization alongside policies to extend labour and social protection to informal workers. Much action is already happening at the sectoral level in the Asian–Pacific countries (see section 4.3).

Policy coherence (putting it all together)

Assuming national development and growth strategies include the objectives of decent job creation and inclusivity, the achievement of such goals requires coordination and integration across government departments. Ministries of employment or labour can help to smooth the labour market transitions through employment policies and develop and enforce more effective and equitable labour protections. But they cannot boost decent job growth except in their capacity to influence macroeconomic policymakers.

Making progress on the three pathways together – supply side, demand side and labour market governance – requires concerted actions across a multitude of government agencies, including at least those responsible for national development planning, finance, labour, social protection, gender, education, infrastructure, agriculture, environment, trade, health and digitalization.

In some countries in the region, policy coherence for decent job growth is intended through the instrument of a national comprehensive employment strategy, with such a document typically "owned" by the ministry of employment or labour. This report argues that employment policies should be further integrated into macroeconomic and development planning and thus driven through a broader government mechanism and with clear political commitment at the top echelons of government. It is also suggested that such strategies take a broader view of job creation objectives, with associated industrial policies focusing not just on the sectors pinpointed for value-added growth but also on the low-productivity, labour-intensive sectors (market services, for example) that can be transformed to improve the well-being of larger population shares.

For the biggest return on investment in terms of transforming livelihoods, reducing inequalities and boosting economic growth in the medium to long term, governments should take a targeted sectoral approach. They should focus on strengthening labour market institutions (public institutions that provide social protection, labour inspection, MSME support and social dialogue) within sectors of low decent work outcomes. With billions of workers in the region in the agriculture, manufacturing and wholesale and retail

[45] ILO, Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204).

[46] There are some good practices in the design and implementation of national integrated strategies for the transition from the informal to formal economy, mainly coming from countries in Latin America. The ILO Programme on Regional Formalization Pathways has as its objective bringing such good practices to regional constituents and supporting accelerated progress towards formalization through a diversity of entry points that are tied together in an integrated national strategy.

trade sectors (section 3.1), strengthening labour market institutions within these sectors to improve the decent work outcomes will boost living standards and the spending power of a sizable (if not the majority) share of the region's population.

4.2 From decent work to inclusive growth

The formalization or labour market government pathway towards expansion of decent work is important also for making progress towards the broader objective of inclusive growth. The developing economies of the region and, to a certain extent, the advanced economies as well, are still missing many of the elements required to diffuse the benefits of national economic expansion to the masses in the forms of decent work, economic security and quality of life (WEF 2017).

According to Ghosh (2015), "true development is less about simply reducing deprivation and more about transformation – structural, institutional and normative – in ways that add to a country's wealth-creating potential, ensuring the gains are widely shared and extending the possibilities for future generations". One needs only review the trends of the decent work indicators, including the labour income share (section 2.4), to see that true development along these lines has not arrived in developing and emerging Asia. Even in the advanced economies of the region, there is an increasing gap between labour productivity and real wages of employees (Chun et al. 2021; OECD 2018).

Alvarez et al. (2021) introduce evidence to show that inclusive growth requires features that are overlooked in most of the literature's prescriptive frameworks: functional income distribution (evident in wage shares) and collective bargaining coverage, which are two elements of labour market institutions (see box 6). Functional income distribution requires countries to have in place effective social protection systems. Most countries in the Asia–Pacific region are lacking in that regard (ILO 2022b). And collective bargaining coverage – the percentage of workers covered by collective agreements – in the region remains very low. In some countries, this figure is less than 5 per cent of formal sector employment, well below the 92-country average of 35 per cent.[47]

Weak labour market institutions remain a significant challenge to inclusive growth for the Asian–Pacific countries. Starting from this premise offers a clear direction for getting countries to pursue a human-centred recovery that is inclusive, sustainable and resilient.[48]

▶ Box 6. What are labour market institutions?

There are "haves" and "have nots" in labour markets. Workers who do well in their capacity to use their labour – physical or mental – to generate income that sustains themselves and their family through their lifetime generally become part of the "haves". What drives the success of the "haves" are elements that are under a person's control (for instance, a choice of occupation), elements that are not controllable (for instance, one's sex and place of birth) and elements that are mixed in terms of the autonomy of influence (for instance, capacity to stay in school, to access training, to bargain on types of contract or wages).

Labour market institutions – the laws, policies and practices – that govern how labour markets operate help to level the playing field for labour market outcomes and generate equitable societies. They include the institutions of collective bargaining, minimum wages, type of employment contract, working time and other labour regulations as well as institutions that redistribute income, including pensions, income support and public social services (Berg 2015).

[47] Countries with low coverage (among those with available data) are Bangladesh, Cambodia, Malaysia, Philippines, Sri Lanka and Thailand. The rates fell between 15 per cent and 25 per cent in Japan, New Zealand, Republic of Korea, Singapore and Viet Nam and were 45 per cent in China and 61 per cent in Australia. See "Collective bargaining coverage rate" in ILOSTAT.

[48] At the International Labour Conference in June 2021, government, employer and worker delegates from 181 countries adopted the ILO Global Call to Action for a Human-Centred Recovery that is Inclusive, Sustainable and Resilient.

4.3 Policy recommendations for sectoral approaches to decent work and inclusive growth promotion

Policies and practices for the promotion of decent work can be most effective when developed and applied at the sector levels so that the particular circumstances of enterprises and workers are addressed. This section makes suggestions that can be applied at the sector level within elements of broader national approaches to the human-centred recovery that is inclusive, sustainable and resilient. Much action to promote decent work within sectors is already taking place, and these practices can be drawn upon.

1. Support social upgrading in sectors through the design and enforcement of labour standards

Effective implementation of international labour standards is important in all sectors but can take on added importance in the sectors most prone to incidence of occupational injuries and deaths, susceptible to child labour or forced labour or other abuses stemming from an imbalance of power in the employment relationship.

International labour standards are often sector-specific, including the Safety and Health in Construction Convention, 1988 (No. 167), the Labour Inspection (Agriculture) Convention, 1969 (No. 129), the Nursing Personnel Convention, 1977 (No. 149) and the Working Conditions (Hotels and Restaurants) Convention, 1991 (No. 172). There are also numerous sectoral codes of practice, including the Code of Practice of Safety and Health in Textiles, Clothing, Leather and Footwear and the Code of Practice on Safety and Health in Construction. Such standards are designed, debated and adopted by trade unions and employers' organizations with ties to the sector and governments through the ILO standard-setting mechanism.[49]

Ratification of ILO standards can be a crucial step towards improving national labour laws in support of decent work. Progress on ratification of ILO Conventions in the Asia–Pacific region is slow and lagging behind other regions, which is both a symptom and a cause of continuing weak labour market governance and the limitations posed to inclusive growth. However, with support from international organizations and the multilateral system, there are many examples of recent good practices in the promotion of labour standards at the sector level in the region, especially in sectors connected to global supply chains.[50] Box 7 highlights the case of China.

[49] For more information, see ILO, "Introduction to International Labour Standards".

[50] See for instance, ILO and OECD 2022a and 2022b, which discuss labour practices in the automobile sector in Thailand and the manufacturing of wooden furniture sector in Viet Nam.

▶ Box 7. Promoting international labour standards in global supply chains in China

Improving corporate social responsibility and responsible business conduct has been the focus of the ILO Responsible Supply Chains in Asia programme in China. In collaboration with China's Ministry of Human Resources and Social Security, the project has contributed to the development of a platform for dialogue and the strengthening of multistakeholder partnerships to promote corporate social responsibility and responsible business conduct. Other participants include ILO social partners, sectoral associations, the private sector, corporate social responsibility service providers, the European Union Chamber of Commerce, universities and the Organisation for Economic Co-operation and Development. A total of 1,516 participants and 401 companies were involved in the project's activities. The following results were achieved through seminar dialogues, training, policy advocacy, outreach and publication activities:

- ILO constituents within the government and workers' and employers' organizations increased their knowledge, understanding and capacity in relation to corporate social responsibility and responsible business conduct.
- Advocacy materials on the labour dimension of corporate social responsibility and responsible business conduct were published and disseminated.
- A total of 75 labour inspectors and 121 enterprises in textile and electronics sectors at the provincial level have enhanced capacity in the application of international labour standards and national labour laws in global supply chains.
- Future business leaders at the university level enhanced their knowledge of international labour standards.
- Chinese companies with overseas investment increased their understanding of international labour standards, especially the fundamental principles and rights at work.

Source: ILO 2022i.

Beyond labour standards, oftentimes codes of conducts and guidelines for specific sectors are designed in tripartite settings for further promotion of decent work at the country level. A recent example is the revised and updated code of practice on safety and health in the construction sector that was discussed for future adoption by ILO experts in February 2022.[51] The revised code of practice underlines the importance of occupational safety and health management systems and maternity protection and makes new provisions in support of environmental sustainability (waste and emissions management).

Enforcement of the legal provisions related to the conditions of work and the protection of workers, including safety and health, is the function of the national labour inspectorate system. Labour inspection is also an important tool for promoting formalization, although challenges remain in building up the capacity for inspections of small enterprises and households (ILO 2021h, Chapter 7). Public investment in a national labour inspectorate system is required to monitor working conditions and sanction abuses of labour standards in the sectors more prone to abuses. In Thailand, for example, the national labour inspection plan prioritizes inspection in sugarcane plantations and in the garment and fishing industries. In Bangladesh, following the tragic industrial accidents of 2012 and 2013, the Government set out to reform and strengthen the labour inspection system, placing a particular eye on the ready-made garment sector, ship-building and ship-breaking sectors and striving to strengthen capacities of inspectors to promote a culture of compliance (ILO 2020d).

2. Support effective social dialogue

Social dialogue and consensus-building among workers, employers and governments are needed to reach policy and action-oriented recommendations in relation to emerging topics of special importance for specific sectors. There are numerous examples of effective sector-level social dialogues during the COVID-19 crisis that helped to protect the health of workers and preserve jobs and livelihoods. For instance:

[51] ILO, "ILO Adopts a Revised Code of Practice on Safety and Health in Construction", Press release, 1 March 2022.

- In the Republic of Korea, an early tripartite agreement was reached in March 2020 by the Healthcare Sector Committee under the Economic, Social and Labour Council to protect health care workers through safety measures, improving job security and ensuring medical treatment for them.
- In Indonesia, the employers' association and the trade union network of the palm oil sector reached agreements in 2020 on strict adherence to the Government's COVID-19 protocols to ensure safe and continued operations of plantations without lay-offs.
- In Sri Lanka, the Government formed a tripartite task force that agreed to pay workers' salaries in the garment sector from March through June 2020, at 50 per cent of the basic wage.

Social dialogue is especially relevant when it comes to wage setting and countering rising inequality. Although it is not ideal to set sector-specific minimum wages, it often occurs in the Asia–Pacific region.[52] National wage disparities are one factor that can attract foreign direct investment for labour-intensive manufacturing in low-wage countries. Effective social dialogue, including collective bargaining, is needed to protect wages and working conditions and to prevent practices that undermine workers' rights as a means to attract foreign direct investment. Statutory minimum wages are now common in certain global supply chains, such as the garment sector, but compliance issues abound (Cowgill and Huynh 2016).

3. Take action towards formalization

The integrated approach to formalization – as guided by the Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204) – places formalization objectives within a broad array of policy areas, including those related to job growth, social protection, regulatory frameworks, enterprise development, skills development and compliance and enforcement. One action area in this regard is enterprise registration. It does not bring about the automatic formalization of workers, but the chances of workers being covered by basic labour protections, such as social security and paid leave, in a registered (formal) enterprise are much higher than in an unregistered enterprise.[53] Governments can put into place punitive measures (fines and so on) to push informal enterprises to register. They can simplify procedures to encourage registration and compliance, or they can offer incentives to enhance productivity upon formalizing (ILO 2021i).[54]

Another entry point to formalization is in the extension of measures of labour and social protection to formerly excluded informal workers, including workers in formal (registered) enterprises. Some countries are taking an important step on this aspect of employment formalization. In Cambodia, Malaysia and the Philippines, for instance, each government has made social security coverage mandatory for domestic workers. Indonesia and the Philippines are working on policies to allow the registration (through associations or non-governmental organizations) of own-account workers in the social security schemes. The ILO has captured other country practices in ILO (2019c).

4. Promote entrepreneurship and enterprise support for bottom-up growth

Obstacles to business development hinder the creation of decent jobs in developing countries. A recent Asian Development Bank survey of agritech start-ups in Viet Nam related the following primary constraints to getting their businesses off the ground: the weak physical and legal structure, the low connection of agriculture to innovation and the low capital investment in agriculture (Pham and Hampel-Milagrosa 2022). Such constraints are common in all sectors among own-account enterprises and MSMEs that struggle to raise labour productivity to compete against larger enterprises. Government and/or private-sponsored programmes to build up capacities with innovation and business management for enhanced productivity at the sector level can bring about positive results. At the regional level, Asia–Pacific Economic Cooperation (APEC) ministers have endorsed the Small and Medium Enterprises Working Group's Strategic Plan for

[52] The ILO (2020b) notes that around half of countries globally with a statutory minimum wage have a single national minimum wage rate while the other half applies more complex systems, with multiple minimum wage rates that are determined by sector of activity, occupation, age of employee or geographical region.

[53] As evidence, in Thailand's manufacturing sector, 19 per cent of workers in formal enterprises were without social insurance provided by the national social protection system, compared with 88 per cent of workers in informal manufacturing enterprises (ILO forthcoming_b).

[54] The ILO Enterprise Formalization Programme has gathered good practices in this area, in a series of policy briefs available on their website.

2021–2024 as a road map to address critical issues pertaining to the growth of MSMEs in the APEC region.[55] The ASEAN Secretariat is also active in promoting the development of MSMEs at the regional level.[56]

5. Enforce good governance in labour migration

Migrant workers are an important part of the workforce in the region's largest sectors in terms of employment. These include agriculture, construction, manufacturing, accommodation and food service activities, health and social work activities and others (see section 3.2). Where production within certain sectors depends on the flow of migrant workers, the treatment of such workers and the governance of labour migration within host countries takes on great importance. This is especially true in the countries with an ageing population that will have increasing need to ward off labour shortages (ILO 2019a). In practice, however, tensions continue to occur between national growth strategies that emphasize employment of nationals in labour-intensive sectors, oftentimes placing a cap on the number of migrant workers and/or imposing a levy on employers to discourage their hiring of migrants. When such policies frustrate employers needing labour and wanting greater flexibility, the danger is that the employers turn to third-party labour contractors whose recruitment practices are difficult to monitor or hire irregular migrants directly. The end result is increased vulnerabilities for the migrant workers.

Developing appropriate institutions and structures to assess the needs for particular sectors and setting up mechanisms to secure an appropriate number of workers from other countries remains of critical importance to the future of economic growth in Asia and the Pacific. And transforming such growth to inclusive growth means rooting labour migration governance on the fundamental labour standards that can ensure that labour migrants are accorded protection and dignity in recognition of the value of their work.[57]

6. Match supply and demand

Identifying skill needs at the sectoral level and prescribing action to develop and promote an adequate supply of labour towards designated growth sectors have long been a part of national skills development strategies as well as national development strategies.[58] A frequently cited case of a holistic approach to planning for better-matched skills supply and demand is Singapore's Industry Transformation Maps for 23 sectors. Within each sector, recommendations agreed to through tripartite dialogue were made on skilling and reskilling needs and actions prescribed to facilitate matching and boost productivity and innovation.[59]

While the Singapore Industry Transformation Maps planning focuses primarily on export-oriented high-tech industries and services, many other governments have the wherewithal to promote skills development within their country's most labour-intensive sectors. This aligns well with the reality of the skills profiles of the developing economies of the region. Although improving slowly over time, the majority of the region's workers have finished school at the secondary level or below and work in occupations designated as low to medium skill. In the Bangsamoro Autonomous Region in Muslim Mindanao of the Philippines, the government there emphasizes investment in technical vocational education and training in the agriculture and construction sectors, where at least 60 per cent of employment is concentrated (ILO forthcoming_c).

There are many other examples of efforts to improve the skills base within the sectors where workers are concentrated. This should ultimately contribute to productivity growth and if backed by labour market institutions, including collective bargaining that operate effectively at the sectoral level, an expansion of decent work-led growth.

7. Target support to women-intensive sectors and increase opportunities for women to work in all sectors

Boosting the economic empowerment of women in the Asia–Pacific region can come about by:

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[55] "Small and Medium Enterprises", APEC webpage, accessed 6 October 2022.

[56] "Development of Micro, Small, and Medium Enterprises in ASEAN (MSME)", ASEAN Secretariat webpage, accessed 6 October 2022.

[57] The ADB Institute, the OECD and the ILO publish an annual report with policy guidance for authorities, policymakers, experts and practitioners interested in facilitating an environment of fair labour migration in Asia and the Pacific. The 2016 and 2019 editions are especially relevant to the discussion here (ADBi, OECD and ILO 2016 and 2019).

[58] See, for instance, World Bank, "Boosting Skills for Better Growth in Lao PDR", Press release, 2 March 2022. ILO (2019a) also provides details on various national skills development plans associated with industrialization (Industry 4.0) strategies in ASEAN +6 countries.

[59] The programme was part of the Government's S$4.5 billion Industry Transformation Programme of 2016. More information is available on the homepage of the Government of Singapore, Ministry of Trade and Industry.

- *Strengthening labour market institutions to orient stronger worker protection, enterprise support, skills development and social dialogue in the sectors where women work*

  One important challenge is that the labour demand in the lower-middle-income economies in the region is primarily for work requiring low education levels in sectors like agriculture, manufacturing and accommodation and food service activities. Frederick et al. (2021) makes the distinction between low-skill jobs, where women make their entry to the labour market, and jobs that can evolve into careers and thus motivate women to stay longer in the labour force, increase their productivity and earn higher wages with an enterprise. In the low-skill jobs, there is often little potential to gain new skills. With little expectation for advancement, turnover among workers is high, and low-skilled women will thus jump in and out of the labour market frequently, especially when home duties require more attention.

  In the garment sector and others that attract women, boosting the jobs-to-career transition and thus encouraging longer-term female labour force participation and higher decent work returns can be done by increasing the ratio of female supervisors, investing in human resources management at the enterprise level to support female career development and improving policies pertaining to women, such as maternity benefits.[60] Improving access to finance and targeting women with business development training and other enterprise-support measures are other critical tools for supporting women entrepreneurs and women workers to improve productivity and decent work outcomes in the sectors where they are concentrated.

  Strengthening the institutions that protect women against violence and harassment in the workplace is another necessary factor for gender equity in the region. This can be done by extending the scope of existing labour laws and occupational safety and health protections or introducing new laws. In India, for instance, the Government introduced the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act in 2013 to prohibit sexual harassment in the workplace, including of domestic workers. In the Sindh Province of Pakistan, a Sindh Women Agricultural Workers Bill was passed in 2019 to provide rights to women in the agriculture sector, including the right to work free from all forms of harassment or abuse (ILO 2021j). The ILO and the International Finance Corporation (2020) investigated how incentives, power and organizational structures influence sexual harassment on the factory floor and made recommendations to evoke improvements.

- *Supporting women's entry into higher-paying sectors and occupations*

  Education choices are one factor behind the gender gaps in labour markets, which is why there is increasing attention to encourage girls and women to specialize in the science, technology, engineering and mathematics fields. But as discussed in section 3.2, sometimes having the right degree, meaning one required for entry into the high-growth sectors like IT, is still not enough to guarantee women access to such jobs.

  To support women's access to jobs across the broad sectoral and occupational spectrums, governments need to make further advancements on the elimination of discriminatory recruitment practices and unfair bias against women by improving legislative frameworks and redressing unfair practices in the public and private sectors (ILO 2018d).

8. Support digitalization to transform livelihoods within sectors

New technologies and their expected impact on jobs and earnings is widely viewed as positive across the region (ILO 2019a, section 2.3). Governments are increasingly applying technology in ways that can bring positive results to formalization, expand the provision of social services and better monitor and enforce labour laws.[61] New technology and the potential associated with digitalization are also lauded as the means to improve opportunities and conditions of work across a wide spread of sectors.[62]

[60] For an overview of care services that support women's employment and their application around the world, see ILO 2022j.

[61] See "Transitioning to the Formal Economy through Technology, or E-formality", ILO webpage.

[62] See, for example: FAO 2020 and Rajalahti 2021 (agriculture); Huang 2022 (construction); ADB and ESCAP 2018 (retail trade); Nguyen 2022 (domestic work).

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Annex 1. Country and income groupings for Asia and the Pacific

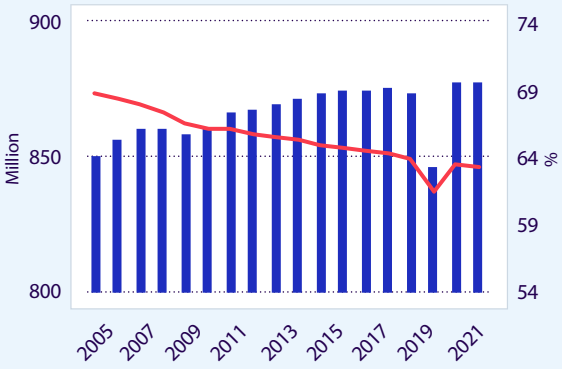
Subregional grouping
East Asia
China
Democratic People's Republic of Korea
Hong Kong, China
Japan
Macau, China
Mongolia
Republic of Korea
Taiwan, China
South-East Asia
Brunei Darussalam
Cambodia
Indonesia
Lao People's Democratic Republic
Malaysia
Myanmar
Philippines
Singapore
Thailand
Timor-Leste
Viet Nam
Pacific
Australia
Fiji
French Polynesia
Guam
New Caledonia
New Zealand
Papua New Guinea
Samoa
Solomon Islands
Tonga
Vanuatu
South Asia
Afghanistan
Bangladesh
Bhutan
India
Islamic Republic of Iran
Maldives
Nepal
Pakistan
Sri Lanka

Income grouping
High-income economies
Australia
Brunei Darussalam
French Polynesia
Guam
Hong Kong, China
Japan
Macau, China
New Caledonia
New Zealand
Republic of Korea
Singapore
Taiwan, China
Upper middle-income economies
China
Fiji
Malaysia
Maldives
Sri Lanka
Thailand
Tonga
Lower-middle-income economies
Bangladesh
Bhutan
Cambodia
India
Indonesia
Islamic Republic of Iran
Lao People's Democratic Republic
Mongolia
Myanmar
Nepal
Pakistan
Papua New Guinea
Philippines
Samoa
Solomon Islands
Timor-Leste
Vanuatu
Viet Nam
Low-income economies
Afghanistan
Democratic People's Republic of Korea

Annex 2. Additional figures

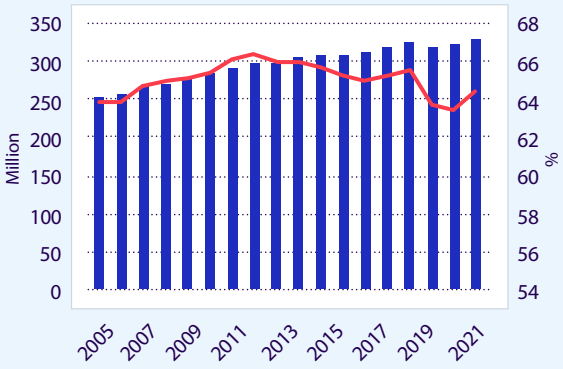
Figure A1. Total employment and employment-to-population ratio, Asia and Pacific subregions, 2005–22 (millions and percentage)

Panel A. East Asia



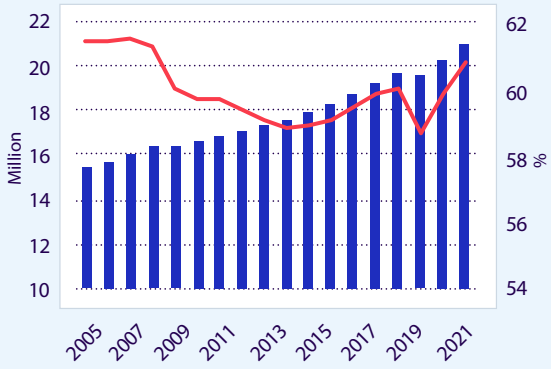
Total employment (million - left-hand axis)
Total employment-to-population ratio (% - right-hand axis)

Panel B. South-East Asia



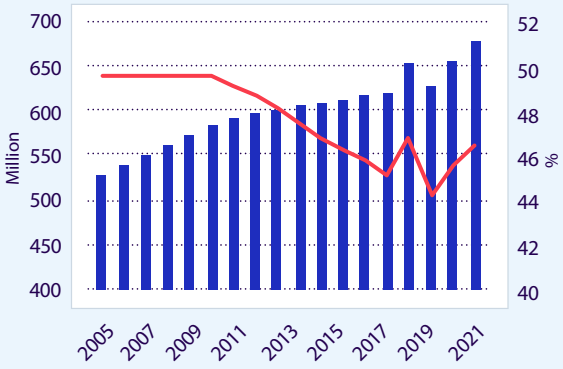
Total employment (million - left-hand axis)
Total employment-to-population ratio (% - right-hand axis)

Panel C. Pacific



Total employment (million - left-hand axis)
Total employment-to-population ratio (% - right-hand axis)

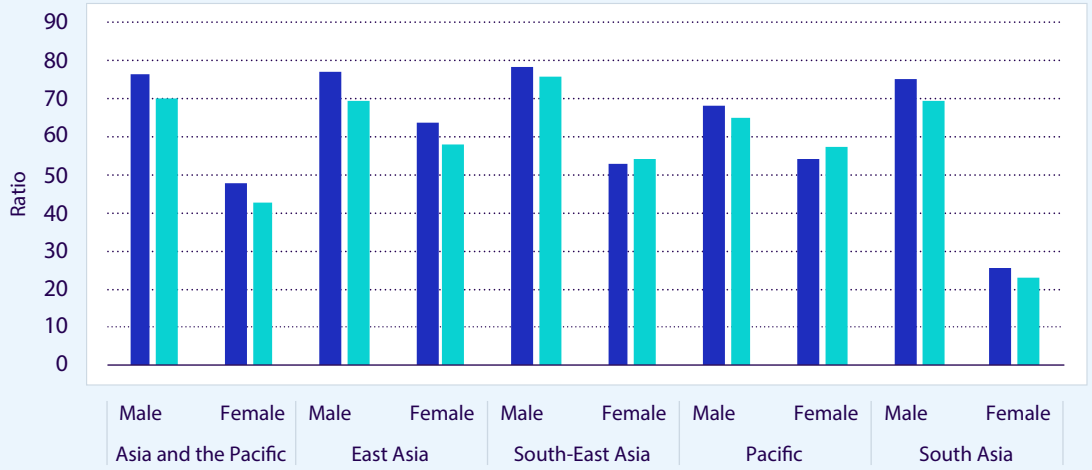
Panel D. South Asia



Total employment (million - left-hand axis)
Total employment-to-population ratio (% - right-hand axis)

Source: ILO sectoral modelled estimates, November 2022.

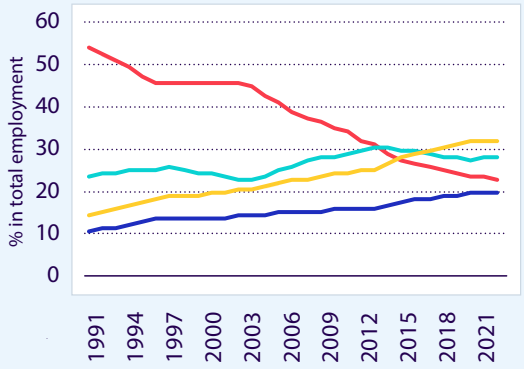
Figure A2. Employment-to-population ratio, by sex, Asia and Pacific region and subregions, 2002 and 2022



Source: ILO modelled estimates, November 2022, available in ILOSTAT.

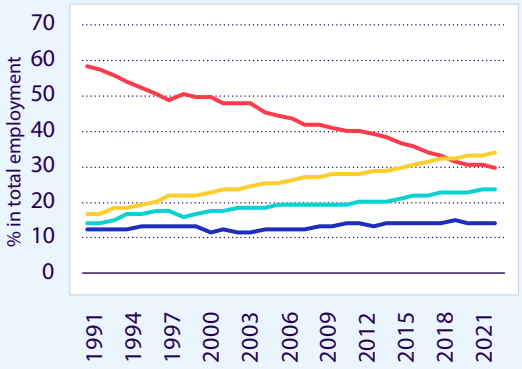
▶ Figure A3. Employment, by broad sector, Asia and Pacific subregions, 1991–2021

Panel A. East Asia



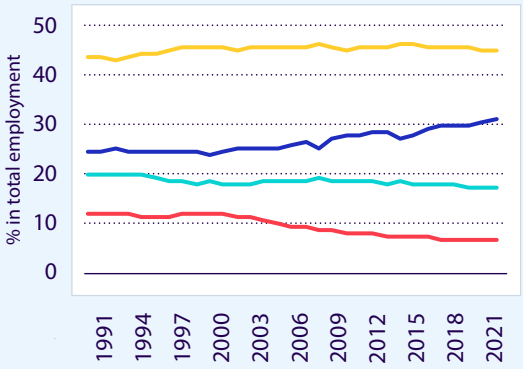
Agriculture
Industry
Market services
Non-market services

Panel B. South-East Asia



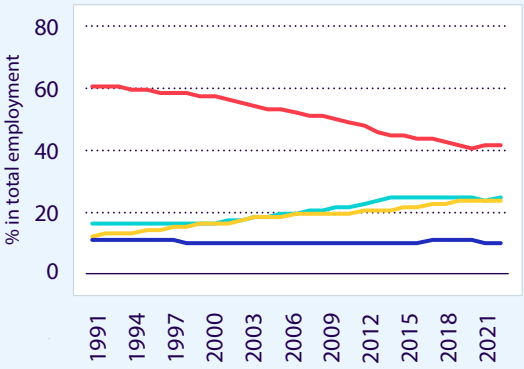
Agriculture
Industry
Market services
Non-market services

Panel C. Pacific



Agriculture
Industry
Market services
Non-market services

Panel D. South Asia



Agriculture
Industry
Market services
Non-market services

▶ Source: ILO sectoral modelled estimates, November 2022.

Annex 3. Methodology for sectoral employment estimates

This annex describes the methodology used to estimate employment by detailed economic activities, referred to in this report as "ILO sectoral modelled estimates, November 2022". Estimates were produced from 1991 to 2021 for countries and territories in the Asia–Pacific region. More specifically, employment was estimated for 43 economic activities of the International Standard Industrial Classification of all Economic Activities (ISIC), Revision 4.[63] Hereafter, the term "sectors" is used for "economic activities". The table shows the 43 economic activities, as well as the various aggregations that are applied in this report.

In addition, the characteristics of employment are estimated for each of those economic activities. In particular, estimates were produced for the share of women, the share of employment in occupations requiring a high skill level (versus medium and low skill levels), the share of wage employment (versus self-employed), the share of informal employment (versus formal employment), the share of employed aged 15–24 (versus those aged 25 and older) and the share of employees earning low pay. The estimates were adjusted to ensure that the economy-wide total of employed along each of those categories equals those published in the ILO modelled estimates series of ILOSTAT, where those exist.

The estimation methodology follows that of other ILO modelled estimates, in particular those of employment by economic activity, by status and by occupation (see Appendix B of ILO 2022a). Missing data were extrapolated based on statistical relationships between the indicator of interest and other explanatory variables, such as GDP per capita.

Definition of sectors

▶ Definition of sectors

	Sectoral disaggregation				
ISIC Rev. 4 codes	**43 sectors (1)**	**35 sectors[1] (2)**	**36 sectors[2] (3)**	**21 sectors[3] (4)**	**4 sectors[4] (5)**
01–03	Agriculture, forestry and fishing	Agriculture	Agriculture	Agriculture	Agriculture
05–06	Mining and extraction of energy-producing products	Mining	Mining	Mining	
07–08	Mining and quarrying of non-energy-producing products				
09	Mining support service activities				
10–12	Food products, beverages, tobacco	Food products, beverages, tobacco	Food products, beverages, tobacco		

[63] For more on ISIC, see https://ilostat.ilo.org/resources/concepts-and-definitions/classification-economic-activities/.

	Sectoral disaggregation				
ISIC Rev. 4 codes	**43 sectors (1)**	**35 sectors[1] (2)**	**36 sectors[2] (3)**	**21 sectors[3] (4)**	**4 sectors[4] (5)**
13–14	Textiles, wearing apparel	Textiles, wearing apparel	Garments	Manufacturing	Industry
15	Leather and related products	Leather and related products			
16	Wood and products of wood and cork	Wood and products of wood and cork	Wood and products of wood and cork		
17–18	Paper products and printing	Paper products and printing	Paper products and printing		
19	Coke and refined petroleum products	Coke and refined petroleum products	Coke and refined petroleum products		
20–21	Chemicals, pharmaceutical products	Chemicals, pharmaceutical products	Chemicals, pharmaceutical products		
22	Rubber, plastic products	Rubber, plastic products	Rubber, plastic products		
23	Other non-metallic mineral products	Other non-metallic mineral products	Other non-metallic mineral products		
24	Basic metal products	Basic and fabricated metal products	Basic metal products		
25	Fabricated metal products		Fabricated metal products		
26	Computer, electronic and optical products	Electronics	Computer, electronic and optical products		
27	Electrical equipment		Electrical equipment		
28	Machinery and equipment nec	Machinery and equipment nec	Machinery and equipment nec		
29	Motor vehicles, trailers and semi-trailers	Transport equipment	Motor vehicles, trailers and semi-trailers		
30	Other transport equipment		Other transport equipment		
31–33	Other manufacturing; repair and installation of machinery and equipment	Other manufacturing; repair and installation of machinery and equipment	Other manufacturing; repair and installation of machinery and equipment		
35–39	Utilities (electricity, gas etc)	Utilities (electricity, gas etc)	Utilities (electricity, gas etc)	Utilities (electricity, gas etc)	
41–43	Construction	Construction	Construction	Construction	
45	Repair and wholesale/ retail trade of motor vehicles	Repair and wholesale/retail trade of motor vehicles			

	Sectoral disaggregation				
ISIC Rev. 4 codes	**43 sectors (1)**	**35 sectors[1] (2)**	**36 sectors[2] (3)**	**21 sectors[3] (4)**	**4 sectors[4] (5)**
46	Wholesale trade (except motor vehicles)	Wholesale trade (except motor vehicles)	Wholesale and retail trade	Wholesale and retail trade	Market services
47	Retail trade (except motor vehicles)	Retail trade (except motor vehicles)			
55–56	Accommodation and food service activities	Accommodation and food service activities	Accommodation and food service activities	Accommodation and food service activities	
61	Telecommunications	Post and telecommunications	Telecommunica-tions	Telecommunica-tions	
53	Postal and courier activities		Postal and courier activities	Postal and courier activities	
49	Land transport	Land transport	Transport	Transport	
50	Water transport	Water transport			
51	Air transport	Air transport			
52	Warehousing	Warehousing	Warehousing	Warehousing	
64–66	Financial activities	Financial activities	Financial activities	Financial activities	
68	Real estate activities	Real estate activities	Real estate activities	Real estate activities	
58–60	Publishing, audio-visual and broadcasting activities	Business services	Publishing, audio-visual and broadcasting activities	Publishing, audio-visual and broadcasting activities	
62–63	IT and other information services		IT and other information services	IT and other information services	
69–82	Other business sector services		Other business sector services	Other business sector services	
84	Public administration and defence; compulsory social security	Public administration and defence; compulsory social security	Public administration and defence; compulsory social security	Public administration and defence; compulsory social security	Non-market services
85	Education	Education	Education	Education	
86–88	Health and social work activities	Health and social work activities	Health and social work activities	Health and social work activities	
90–96	Arts, entertainment, recreation and other service activities	Arts, entertainment, recreation and other service activities	Arts, entertainment, recreation and other service activities	Arts, entertainment, recreation and other service activities	
97–99	Private households with employed persons	Private households with employed persons	Private households with employed persons	Private households with employed persons	

Note: 1 = Used in the decomposition of labour productivity in section 3.4 to align with sectoral classification in the Asian Development Bank's Input–Output tables, from where data on sectoral value added were sourced. 2 = See discussion of manufacturing subsectors in section 3.1.2. 3 = See sections 3.1.1 and 3.3. 4 = See sections 3.4 and 3.5.

Data preparation

Labour Force Surveys (LFS) from the ILO's harmonized microdata repository were the principal data source to derive these estimates. In cases in which the ILO lacks access to the microdata of the LFS, employment by two-digit economic activity was sourced from published data by national statistical offices. Statistics derived from the LFS require a sufficient sample size to be reliable population estimates. Given the high degree of disaggregation that was targeted for the estimates, those sufficient sample sizes were not always met for all economic activities and characteristics, causing some survey-derived figures to be unreliable. One consequence of this lack of reliability is that employment estimates can fluctuate significantly between years, by much more than what one should realistically expect.

The LFS-based data were hence adjusted using an approach akin to the Kalman filter by taking into account the sample size underlying those LFS-based figures. First, reliability weights for each observation were determined as a function of the number of individual observations by sector and characteristic of employment.[64] Second, the characteristic, such as the employment share in an activity, was regressed on GDP per capita and a country dummy using a weighted linear pooled regression. Third, the final adjusted value was derived by weighing the predicted values from that regression with the LFS-based figures, using the determined weights. The adjusted data thus had the following properties:

- Any LFS-based estimate that was based on more than 30 observations remained unadjusted.
- The country mean was determined by a weighted mean of the country observations, taking into account any possible trend implied by changing GDP per capita.
- The resulting series was smoothed considerably in those cases for which the number of observations in the LFS was very small.

Changes in survey methodology or statistical definition can create breaks or outliers in series that do not reflect real changes in the labour market. Therefore, the input data were cleaned to remove outliers and breaks. A manual data inspection and cleaning was conducted for employment by detailed economic activity. Given the sheer number of datapoints, such a manual cleaning was not feasible for the input data of characteristics of employment by economic activity. Instead, an automatic routine cleaned the input data based on a statistical determination of what was considered a "too large jump".

Explanatory variables

The Organisation for Economic Co-operation and Development (OECD) collects and publishes data on employees in detailed economic activities based on national accounts statistics. In addition, the United Nations Industrial Development Organization (UNIDO) publishes figures of employees in manufacturing activities beyond OECD countries, also based on the national accounts concept. Those two data sources provided information for some countries and years where the LFS-based data were not available. However, the employment shares by detailed economic activity do not fully correspond to the employee shares implied by the OECD and UNIDO databases. First, employees are only a subset of the employed (excluding the self-employed), and second, LFS is a household survey while national accounts are based on establishment surveys. Therefore, the OECD and UNIDO data were not used directly as input data but were used as explanatory variables in a regression analysis to impute employment shares. In addition to employment shares, the value-added shares by economic activity published by the OECD and UNIDO and the export shares by economic activity published by the OECD [65] were used as explanatory variables.

The data based on trade statistics and national accounts were available at the detailed level of economic activity but only for a limited number of countries and time periods. To obtain a fully balanced panel dataset, explanatory variables also needed to be available as a fully balanced panel dataset. Those included GDP per capita derived from the World Development Indicators, estimates of the distribution of value added by the United Nations Statistics Division and estimates of the share of urban population from the United Nations Population Statistics. Finally, the ILO modelled estimates of the national share of employment in high-skill occupations, the share of wage employment, the share of youth employment and the share of informal employment served as explanatory variables in the respective cases.

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[64] The weight was determined as w_i=max $((obs_i)/30)^{1.5}$,1), with a maximum weight of one for any figure that was based on at least 30 observations.

[65] OECD, Balanced International Merchandise Trade Statistics.

Estimation methodology

The estimation procedure was based on determining statistical relationships between the indicator of interest and the explanatory variables. A multitude of such relationships could be specified, called candidate specifications. Those can differ with respect to the inclusion of explanatory variables but also with respect to the countries pooled together. Pseudo out-of-sample errors were estimated for each candidate specification by establishing the parameters of the statistical relationship while excluding the observation for which the error was to be determined. The candidate specifications were then averaged, based on their performance with regards to the out-of-sample errors.

The procedure was done in two steps. In the first step, a cross-country regression was performed to determine the share of each of the employment-related categories in countries for which no data were available. The second step estimated the evolution of the shares of each category for the entire time period.

The resulting employment shares were rebalanced to ensure that the sum of employment (of a certain characteristic) in the detailed economic activities equalled the employment (of a certain characteristic) of the economy.

Asia–Pacific Employment and Social Outlook 2022
Rethinking sectoral strategies for a human-centred future of work

The *Asia–Pacific Employment and Social Outlook 2022* report pulls together the most recent statistics to generate an update of the impact on workers and enterprises in the region since the COVID-19 pandemic began nearly three years prior. Beyond the crisis impact, the report examines the longer-term trends to generate a detailed picture of where and how people work in the region, focusing on the sectoral composition of employment and its relation to decent work and development outcomes. The report asks the question of how to ease the inequalities in work quality between sectors so that all workers and enterprises can thrive through good times and bad. In the context of increasing economic, political and environmental uncertainties, the Outlook argues that only by transforming how labour market institutions function will countries make a breakthrough to a human-centred future of work that links to inclusive and sustainable growth.

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