An aerial, high-angle photograph of a large, dense crowd of people. The individuals are seen from above, showing a variety of clothing colors and patterns. The crowd is spread across the entire frame, with some areas appearing more densely packed than others. The overall tone is vibrant and dynamic.

# Making the case for global workforce migration: A strategic blueprint to harness India's demographic dividend

March 2025





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# Foreword

As the world deliberates upon how cross-border mobility can address workforce shortages, global policy dialogues and collaborative efforts have become more crucial. India, standing at the cusp of a pivotal economic and demographic shift, is well-positioned to cater to the global demand for talent.

The report, 'Making the case for global workforce migration: A strategic blueprint to harness India's demographic dividend', aims to contribute to the dialogue and highlight India's role in shaping the future of work and labour force mobility. It outlines important policy recommendations to address the key barriers in labour migration pathways and enhance international dialogue and cooperation to maximise the economic benefits of labour mobility, thereby help nurture prosperity for the global economy.

While the idea of promoting fair labour migration and mobility is not new, its criticality has gained prominence as the world stands at the crossroads of massive economic, geopolitical and technological transformations. This report aims to serve the role of a strategic reference for policymakers, industry leaders, the academia and other stakeholders engaged in shaping workforce migration policies, frameworks and development strategies across the globe.

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# Introduction

Global labour migration has been instrumental in shaping how societies are formed and how economies function. Since the establishment of ancient trade routes to present day, labour migration has been an important factor in defining global geopolitical dynamics and shaping the socioeconomic fabric. Though labour migration is typically influenced by employment opportunities and earning potential, factors such as economic stability, geopolitical dynamics, national security concerns and the pursuit of higher living standards are also gaining prominence in influencing the workforce's decision.

Global workforce, therefore, stands at a crossroad where global labour migration landscape is dotted with multiple challenges and requires a unified policy framework, coordinated international support and efforts for aiding labour migration flow across the world and to leverage human capital for global growth and prosperity. The key challenges that the world is witnessing today in the context of labour migration are multidimensional, spanning across policy and regulatory hurdles, including lack of adequate social security mechanisms, inadequate skill recognition and skill mismatch, short-term employment contracts and low social, cultural and political receptiveness.

Against this backdrop, this paper attempts to provide a comprehensive understanding of the global labour migration landscape with a focus on the underlying economic frameworks and cross-country evidence of evolving labour migration patterns, its socio-economic implications and how India's demographic dividend can be leveraged in this context.

The first chapter looks at the dual role of labour – a crucial production factor and a demand driver – and its complementary relationship with technology in augmenting economic output and sustainable growth. The chapter enumerates the evolution of global labour migration patterns shaped by social, economic, political and technological factors as well as the structural shifts in labour migration patterns in the recent decade driven by technological advancements. It also examines the challenges and opportunities related to global labour migration, setting the context for a detailed discussion in the later chapters.

The second chapter looks at the evolution of labour migration theories, driven by factors like population changes, differential wages and technological changes. It explains the tenets of a fundamental model of global labour migration and talks about both the economic and social benefits of global labour migration, including skills transfer, entrepreneurship, innovation, remittances and higher gross domestic product (GDP) growth.

The third chapter highlights the evolving labour migration trends, with an analysis of immigration policies in key destination countries like the United Arab Emirates (UAE) and the United States (US). It also looks at frameworks like ASEAN Qualifications Reference Framework (AQRF) and European initiatives like the Europass which aids labour migration across the world. The fourth chapter discusses the key challenges to labour migration, ranging from cultural and social barriers to institutional impediments like the absence of bilateral and multilateral diplomatic agreements. The chapter also highlights concepts like the 'lottery of birth',<sup>1</sup> encapsulating the inherent advantages or disadvantages migrants face due to their birthplace. The fifth chapter focusses on India, underpinning its crucial position in the global labour migration landscape and identifying trends in Indian labour migration, while also detailing the country's public and private sector initiatives aimed at facilitating international labour mobility.

The sixth chapter looks at the convergence of labour economics and international relations, highlighting the need for institutional arrangements to attain an equilibrium in global labour supply and demand. Furthermore, it enumerates how Indian labour markets can assume an important role in the global workforce landscape by aligning with global policies and institutional frameworks to fully leverage the economic potential of labour migration for both the domestic and global economy.

The seventh chapter maps global labour opportunities, emphasising India's role in addressing workforce shortages in mature economies like Germany, Japan, and Canada. The section highlights how barriers such as skill mismatches, regulatory complexities, and qualification recognition persist and can be mitigated by strengthening skilling initiatives, aligning certifications with global standards, and leveraging AI-driven training platforms. Lastly, the concluding chapter on policy recommendations highlights how a sustainable workforce mobility framework necessitates robust alignment between domestic skill development initiatives and evolving international labour demands. A dynamic, future-ready labour mobility strategy can position India as a leading global talent supplier while maximising reciprocal economic benefits.

<sup>1</sup> Note: Lottery of birth refers to the concept that the circumstances into which a person is born—such as location, time, family and societal context are matters of chance which can significantly influence their life opportunities and outcomes.



# 01 Labour as a global resource

## 1.1 Labour as a critical input

Labour has been a crucial and indispensable force throughout every phase of economic evolution, acting as the backbone of production, growth and economic development. It is not only a critical factor of production, resilient to waves of industrial and technological revolution but has also been pivotal to global socioeconomic transformations. Labour is the only factor of production that serves a dual role, both as an input in production and as a consumer influencing the demand for production.

This criticality of labour has largely remained unchanged even in the wake of watershed moments in the global industrial order. The first Industrial Revolution led to a shift in labour force from primary to secondary sectors, as the invention of steam engine boosted labour productivity by significantly lowering the dependence on manual labour. The second and third Industrial Revolution, pivotal on technological innovation further increased the demand for skilled labour.

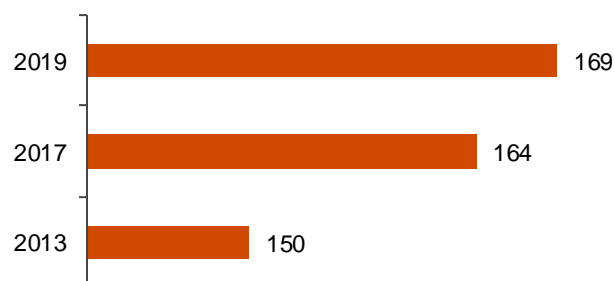
In the current context, while digital disruption and automation has enhanced labour productivity, labour in turn has been driving such innovation, critical thinking and decision-making. On the one hand, technological progress has enhanced labour productivity by largely eliminating low end jobs, streamlining tasks and processes and enabling workers to generate more output with the same level of man-hours. Meanwhile on the other, labour, by the virtue of its human intelligence, creativity, critical thinking and agility has been at the forefront of this technology revolution. Thus, in this ever-changing landscape, the role of labour is increasingly becoming more complex and essential in aiding economic output.

The relationship between labour and technology is more complementary than substitutive, with each playing an indispensable role in supporting economic momentum. The essence of this relationship has been underscored in the endogenous economic growth model,<sup>2</sup> which considers labour as a complementary input to technology in production.

## 1.2 International labour migration as a leveller

International labour migration has been a crucial factor in shaping economies, societies and cultures across the globe throughout history. Beginning with the establishment of maritime trade routes centuries ago to the expansion of global networks in the modern times, global labour migration continues to influence geopolitical developments as well as the socioeconomic fabric across the globe. In the current context, global labour migration is an important concern driven by a slew of economic, social, geopolitical and cultural factors. This section discusses the current trends in global labour migration.

**Figure 1: Stock of global labour migrants (millions)**



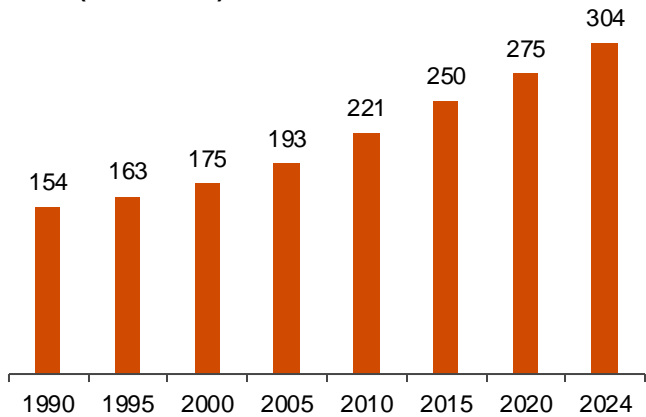
Source: [ILO, 2021. ILO Global Estimates on International Migrant Workers Results and Methodology](#)

<sup>2</sup> [Paul M Romer, Endogenous technological change. Journal of political Economy, 98\(5, Part 2\)](#)

Data from International Labour Organisation (ILO) reveals that as of 2019, total international migrant workers across the globe stood at 169 million accounting for 4.9% of the global labour force. From a gender perspective, there were 99 million male workers and 70 million female workers.<sup>3</sup>

Figure 2 shows an increasing trend in overall global migration.

**Figure 2: Number of international migrants from 1990 to 2024 (in millions)**

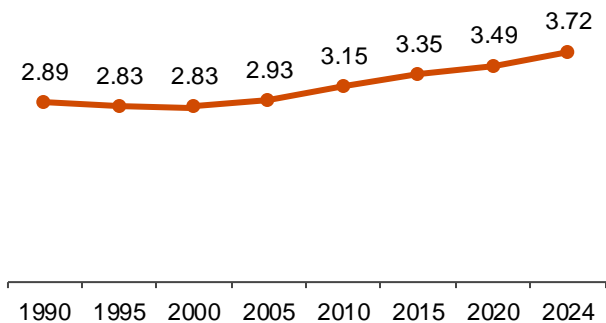


Source: [United Nations Department of Economic and Social Affairs, Population Division \(2024\). International Migrant Stock 2024.](#)

Meanwhile in Figure 2, data from United Nations (UN) shows an increasing trend in international migration, with an 98% increase between 1990 to 2024. This suggests greater redistribution of labour resources across the globe, addressing issues of labour and skill shortages and demographic disparities. From an economic perspective, this aides economic growth in host countries through more productive labour allocation and supported development in home countries through higher remittance inflow.

Figure 3 corroborates that global migration has been increasing at a faster pace than the increase in total world population over the last three decades. The percentage of migrants in the global population has increased from 2.9% in 1990 to 3.7% in 2024.

**Figure 3: World migrants as a percentage of total population**



Source: [United Nations Department of Economic and Social Affairs, Population Division \(2024\). International Migrant Stock 2024](#) and [Worldometer](#)

Delving deeper, the gender gap among international migrants has been widening in the last 20 years. In 2000, the gender distribution of global migrants was nearly equal. However, by 2024, this gap widened, with males comprising 52% and females 48% of the migrant population.<sup>4</sup>

From a regional perspective, North America, Europe, and the Gulf countries are the most preferred destination for migrant workers, due to better economic opportunities, political stability and higher living standards. Conversely, regions experiencing conflict, economic hardship or environmental challenges are seeing higher emigration rates.

**India’s role in international labour migration**

India holds a unique position in the narrative of international labour migration. The phenomenon of global emigration of Indian has deeper historical roots and has been constantly evolving in response to global economic and geopolitical dynamics.

Economic factors played an important role in shaping India’s labour emigration patterns. The oil boom in the Middle East during 1970-1980 led to a plethora of economic opportunities in the construction and low-skilled services sector. This led to a significant immigration of Indian labour to the Gulf countries. There was also a significant increase in the emigration of highly skilled labour to developed countries like the US, Canada, the United Kingdom and Australia in sectors such as medicine, healthcare, information technology (IT) and engineering. The period witnessed a sizable emigration of Indian medical professionals to the US due to the expanding healthcare sector in the country as along with the implementation of several favourable immigration policies.

Furthermore, the booming IT sector in the US during the 1990s also attracted high skilled Indian IT professionals. The period saw many Indians, driven by better economic opportunities and living standards seeking permanent residency or citizenship in the US.

In the recent decades, on the one hand, Gulf countries are largely attracting unskilled and semi-skilled Indian labour due to the high demand for labour in the region’s fast expanding infrastructure and construction sectors, and low-end services and on the other hand, developed economies like the US, Canada and countries of the European Union have been a popular location for highly skilled Indian labour migrants.

In the coming years, as global labour force migration may continue to increase, India’s international labour migration landscape is poised to evolve further in response to technological evolution, enhanced digital connectivity, climate changes and demographic transitions. Global demand for skilled labour is expected to strengthen, offering enhanced opportunities for Indian labour in emerging sectors like artificial intelligence, renewable energy and biotechnology.

<sup>3</sup> [ILO Global Estimates on International Migrant Workers- Results and Methodology. \(3rd ed.\)](#)  
<sup>4</sup> [United Nations Department of Economic and Social Affairs, Population Division \(2024\). International Migrant Stock 2024](#)



India's strategic initiatives and reforms to enhance education and skill development in the country will further equip its labour force with the necessary skills to meet global demand, ensuring India's continued contribution to global labour migration.

### 1.3 Structural shifts in global labour migration

Global labour migration patterns have witnessed disruptive changes in the last decade, largely driven by rapid changes in technology. The confluence of emerging technologies like AI, big data, Internet of Things (IoT) and blockchain computing, coined under the umbrella of the fourth Industrial Revolution, (Industry 4.0) has led to paradigm changes in the labour market landscape worldwide. There has been an increasing trend in de-linking of labour from its services – a shift away from traditional long-term, location-based labour employment to task-based service delivery that can be performed by a labour virtually without the need of any physical presence.

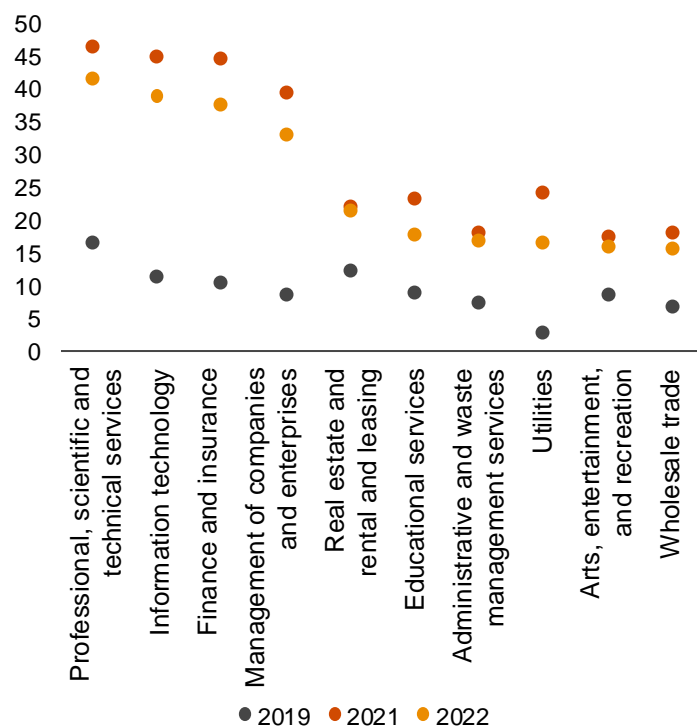
Aided by the digital wave, the rise of gig economy (freelancing and part time work) and emergence of digital platforms enabled outsourcing of jobs – mainly contract-based tasks to a large global workforce beyond geographical boundaries. This helped skilled workers in developing economies in pursuit of higher income opportunities to access global jobs from a remote location without the need of any physical movement, thus eliminating the existing geographical and geopolitical constraints. This de-linking of labour and its services has helped in increasing the outreach and employability of global labour force, thus offering businesses access to a much wider global labour pool and providing workers a global market for their skills.

The COVID-19 pandemic and the consequent lockdowns which led to disruptions in economic activity further strengthened this transformation. Remote working practices increased sharply in low contact-intensive sectors like professional services and information technology during this period. However, its noteworthy that the trend of remote work in some of the sectors has persisted even in the post-pandemic period.

Figure 4 shows a sharp increase in jobs that can be performed remotely (as percentage of total jobs) in the US. This was triggered by the widespread lockdowns after the COVID-19 pandemic. The share decreased in 2022 as economic activity and business operations moved towards normalcy, resulting in many workers resuming working from offices, particularly in more labour-intensive sectors. Despite the decline, the share of remotely performed work in 2022 remained significantly higher than the pre-pandemic levels, highlighting a more structural shift underway.

This change in work and employment pattern has also led to a structural transformation in migration patterns, wherein labour would offer its services to businesses across geographical borders, without the need of any physical movement.

**Figure 4: Percentage of remote work among US workers by major industry group (top 10 industries)**



Source: [U.S. Bureau of Labor Statistics, The rise in remote work since the pandemic and its impact on productivity](#)

This trend in global labour migration will likely sustain as digital jobs and remote working opportunities continue to gain traction.<sup>5</sup> According to a World Economic Forum report, businesses expect around 42% of all tasks to be automated by the year 2027.<sup>6</sup> Similarly, according to another report, digital jobs are expected to increase by around 25% by 2030, thus creating huge disruptions in the global labour-market.<sup>7</sup> These trends underscore a cohesive mix of increasing job opportunities in emerging and high skill domains with a gradual phasing out of several existing low and medium skilled manual tasks, that will likely be automated. Thus, while low end tasks – the ones which employ unskilled and low-skilled labour including migrant labour – may decline, high skill jobs are likely to gain prominence, thus facilitating greater migration of niche skills and expertise across countries. Particularly developed economies, with thriving service sector will continue to attract skilled labour but the increasing possibilities of delinking of labour and its services, will likely result in migration of skills across the globe, without cross border physical movement of labour.

<sup>5</sup> [World Economic Forum, The Future of Jobs Report 2023](#)

<sup>6</sup> [World Economic Forum, The Future of Jobs Report 2023](#)

<sup>7</sup> [World Economic Forum, The Rise of Global Digital Jobs. White paper January 2024](#)



While the emergence of a wide spectrum of new job roles offers increased opportunities for the labour force, it also brings with it new challenges. For example, gig work may involve irregular and out of routine working hours, irregular payment, short-term contracts, wage discrimination and in several cases, no job security. This is largely due to the evolving nature of such jobs and the absence of well-crafted labour regulations pertaining to the same.

Therefore, it is crucial to adopt a holistic policy approach to these structural changes. A detailed understanding of the evolving trends in global labour demand and supply and migration patterns is key to the effective formulation of future migration policies across countries. Adapting policies, including revising work visa requirements, revamping hiring process for skilled migrants and designing a facilitating labour migration framework may help in addressing the current challenges and manage this transition well.

## 1.4 Challenges and opportunities in global labour markets

Global labour markets are facing a myriad of challenges. Economic volatility, informal employment and underemployment, skill mismatches, demographic shifts and wage compression are some of the issues that warrant well-designed mitigating measures. However, on the brighter side, opportunities related to technological progress, remote working alternatives, move towards sustainable growth and focus on up-skilling are plenty. Leveraging these opportunities would require supportive policies, favourable regulatory framework and international cooperation to ensure a robust, resilient and inclusive global labour markets. The following section discusses some of the key trends, which pose challenges and, if leveraged well, can translate into opportunities for global labour migration.

**Unemployment and underemployment:** The global labour market is fragmented and diverse, with low and middle-income countries coping with high unemployment levels, while high-income countries are facing labour shortages in many sectors. While global unemployment rate stood at 5.1% in 2023, well below the pre-pandemic levels, there are huge underlying disparities – high-income countries have an unemployment rate of 4.5%, compared to 5.7% in low-income countries.<sup>8</sup> Supportive frameworks facilitating cross-border labour migration could help reduce these imbalances, providing socioeconomic benefits to both the migrant-sending as well as the receiving countries and optimising employment levels worldwide.

**Skills mismatch:** Any gap between workers' skills and job requirements results in underemployment and inefficiencies, weighing on economic growth and innovation. A report by World Economic Forum reveals that 60% of companies outlined local skills gaps as a major barrier to transformation, and 53% struggle to attract talent.<sup>9</sup>

**Demographic shifts:** The proportion of older workers aged 55 to 64 in the global labour force has been on a steady rise and is likely to increase further till 2030. This trend is predominant in both emerging and developed economies, where older workers is expected to account for 13.2% and 17.7% of the total workforce, respectively. This is sharply higher than the share of 7.9% in developing economies.<sup>10</sup> Thus, while developed economies are facing demographic challenges, most of the developing economies are reaping the benefits of having a relatively younger population, offering a potential demographic dividend. Global migration and productive employment of young labour from labour rich developing economies to the advanced economies witnessing labour shortages can help rejuvenate their workforces and support economic output and sustainable growth.

### Undocumented migration and labour markets:

Undocumented migration is increasingly undermining legal migration frameworks, adversely impacting public resources, triggering anti-migration sentiments and resulting in restrictive immigration policies. The conflation of regular and irregular migration in political dialogue has exacerbated negative public perceptions, resulting in regulatory frameworks and policies that make legal migration more bureaucratic, expensive and difficult even when host countries face labour shortages in high skills sectors like healthcare and technology. Governments must balance national security concerns with economic needs by implementing more transparent migration policies which can facilitate legal migration. Additionally, international dialogue and cooperation is essential to address the critical issue of forced migration to ensure that labour migration helps in achieving shared prosperity across the globe.

**Technological and structural shifts:** Remote working practices and emergence of digital jobs have reshaped the global labour landscape, bringing in paradigm changes. The automation of low-skilled tasks has weighed on demand for low skilled labour but at the same time has generated many high-skilled and specialised jobs, creating opportunities for cross-border skill migration. By adequately capitalising this technological change, identifying key skill areas and providing quality skills trainings, countries can foster a more skilled, inclusive and empowered global workforce, leveraging labour migration for global economic and social enhancement.

The global labour market is going through a transformative phase driven by a plethora of technological, demographic socioeconomic and geopolitical factors. Adequately understanding these changes, addressing the imminent challenges and leveraging the opportunities requires collaboration between governments, policy makers, private sector, educational institutions and the society at large to foster inclusive, equitable and supportable labour market policies.

<sup>8</sup> [ILO World employment and social outlook: Trends 2024. \(1st ed.\)](#)

<sup>9</sup> [World Economic Forum, The Future of Jobs Report 2023](#)

<sup>10</sup> [Harasty, C., Ostermeier, M. 2020. "Population Ageing: Alternative measures of dependency and implications for the future of work". ILO Working Paper 5](#)



## 02 Benefits of global workforce migration

### 2.1 Economics of immigration: A multifaceted analysis

The United Nations defines international migrant as ‘any person who has changed his or her country of residence.’<sup>11</sup> This broad definition includes individuals who move for different reasons, for example, better economic opportunities, family reunification, education or fleeing geopolitical conflict. Meanwhile, focusing on labour aspect of migration, the International Labour Organization (ILO) defines a labour migrant as ‘a person who is to be engaged or has been engaged in a remunerated activity in a state of which he or she is not a national.’<sup>12</sup> Labour migration is a substantial part of global migration, driven by the demand for labour across different geographic regions and sectors.

Labour migration can be influenced by a slew of economic or non-economic factors. This section discusses the evolution of theoretical frameworks of global migration, assessing the drivers of migration and providing evidence of their empirical veracity.

Migration drivers can be broadly categorised into two factors – push and pull. Push factors are conditions which influence people to leave their home region or workplace, while pull factors are attributes of a destination that attract workers to migrate to that area. Low wages, economic instability, geopolitical conflicts, poor social benefits are some of the most common push factors.

Similarly, higher wages, attractive welfare programmes, political stability, better working conditions in the destination region are pull factors which can motivate workers to migrate. Migration decisions are also influenced by the relative difference in expected utility which is affected by both push and pull factors. The following section discusses how economic theory has conceptualised migration, evolving from the Neoclassical framework to broader, heterodox frameworks.

Early economic models from the classical school considered population growth as a binding constraint for economic progress due to limited resources, land in particular. However, the economic boom in the immigrant-receiving countries like the US, Canada, and Australia in the 9th century contradicted this school of thought, highlighting that immigration aids growth rather than hindering it. As economic thought evolved, the Neoclassical School, particularly through the Solow growth model<sup>13</sup> highlighted the importance of technological progress as the key driver of long-term economic growth. The model also underscores the crucial role of human capital in enhancing a country's technological capabilities and growth potential. This framework remains highly relevant in the current context, wherein technology adoption and innovation are key to continuing competitiveness and migration of skilled workers has been at the fulcrum of global labour migration.

<sup>11</sup> [United Nations. Global Issues. “International Migration”](#)

<sup>12</sup> [United Nations Convention on the Protection of the Rights of all Migrant Workers and Members of their Families, 1990. Article 2\(1\)](#)

<sup>13</sup> Note: Solow model is a neoclassical model of economic growth, developed by Robert M. Solow in 1957. The Solow growth model shows how capital, population growth, and technological progress affect the level of an economy's output and its growth over time.



The later models of labour migration, like the one conceptualised by Harris and Todaro,<sup>14</sup> further explain some of the current migration dynamics. Unlike traditional models which assume that migration would stop once wage differences are eliminated, this framework considers other factors, such as employment probability and urban-rural disparities, to provide a more thorough understanding of why migration may persist even when wage gaps are minimised. In today's world, labour migration is driven not just by wage differentials but also by factors like employment opportunities, expected wage differences rather than actual, quality of life, access to healthcare and education, and social and political stability.

The endogenous growth model<sup>15</sup> highlights the significance of skilled migrants in complementing technology and driving innovation. As a reflection, recent migration policies in many countries have increasingly prioritised attracting skilled talent.

Additional theories also explain the evolving migration patterns. For instance, the dual or segmented labour market theory<sup>16</sup> highlights how macroeconomic aspects, such as industrial transformations in developed countries create pull factors for migration. The world systems theory<sup>17</sup> illustrates how developed countries seek labour from developing regions, shaping global migration routes.

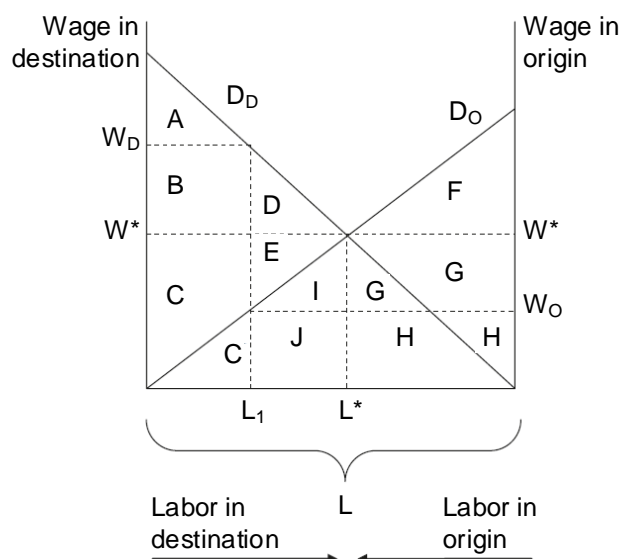
While the contemporary economic theories may differ in their theoretical essence, they largely highlight that labour migration is driven by a range of multifaceted factors beyond wage differences and that industrial and technology changes and established migrant communities play a key role in determining and sustaining global migration patterns while boosting economic growth.

## 2.2 An economic framework of global labour migration

To understand how free flow of labour migration from labour-endowed economy to labour deficit-economy can boost global economic welfare, we look at a basic economic model of global labour migration. The model assumes free cross-border movement of labour across the world. As labour migration increases, the increased labour supply in the destination country results in a reduction in wages there,<sup>18</sup> while the reduced supply in the origin country leads to wage increases.<sup>19</sup> Immigrants benefit from higher wages in the destination country compared to the origin country and domestic workers in the origin country see wage growth due to fewer workers.

Although native-born workers in the destination country may experience a slight wage decrease, the overall societal gains from migration outweigh the losses.

**Figure 5: Destination and origin labour market equilibrium pre-and post-immigration**



Source: Taken from Book: Cynthia Bansak Zebedee, Nicole Simpson, Madeline Zavodny. 2020. "The Economics of Immigration". 2nd Edition. Routledge

Figure 5 depicts the labour market graphs for both the destination and origin countries. The vertical axis on the left-side shows the wage in the destination country, while the vertical axis on the right-side shows the wage in the origin country. The horizontal axis measures the number of workers in the destination from left to right, and the number of workers in the origin from right to left. The stock of labour across both countries is represented by L, full length of the horizontal axis. In each country, labour demand is driven by the value of workers marginal product. The demand for labour is greater in the destination country than in the origin country, as indicated by the higher vertical intercept of DD compared to DO. This shows that workers are more productive in the destination country.

<sup>14</sup> John R. Harris and Michael P. Todaro. 1970. "Migration, Unemployment and Development: A Two-Sector Analysis". *The American Economic Review*, Vol. 60, No. 1

<sup>15</sup> Paul M Romer. Endogenous technological change. *Journal of political Economy*. 98(5, Part 2)

<sup>16</sup> Bennett Harrison and Andrew Sum. 1979. "The Theory of "Dual" or Segmented Labor Markets". *Journal of Economic Issues*. Vol. 13, No. 3

<sup>17</sup> Wallerstein, I. 2011. "The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century". 1st ed. University of California Press.

<sup>18</sup> In this model, it is assumed that native-born and immigrant are competitors. If they are complementary to each-other, wage in fact might increase. Empirical evidence shows that there is null or slightly positive impact on wage and employment on native workers due to immigration. Hence, this model highlights that even when we assume negative impact in labour market of destination countries, there is larger global gain to achieve through free flow of labour migration.

<sup>19</sup> Anthony Edo. 2019. "The Impact of Immigration on the labour market". *Journal of Economic Surveys*. Volume33, Issue3.

## Pre-immigration equilibrium

The pre- immigration labour market equilibrium in the destination is L1 workers and wage WD in destination, and LO = L – L1 workers and wage WO in the origin.

## Open global labour migration

In a scenario of open labour migration, workers relocate until wages are equal in both countries. This equilibrium is reached at the point where the labour supply intersects with the labour demand in each country ( $L^*$ ). Workers continue to move until the wages in both countries are equalised, resulting in  $WD = WO = W^*$  at equilibrium. The wage in the destination country decreases from WD to  $W^*$ . Conversely, in the origin country, the wage increases from WO to  $W^*$ . While the theoretical model is based on an assumption of no labour migration barriers, in reality, the existence of geopolitical and social barriers has hindered wage equalisation in many regions, particularly between low- and high-income countries.

## Gain for the immigrant

Immigrants benefit by earning higher wage. Due to labour migration, immigrant workers gain areas E and I. Before migrating, they earned area J, but after migration, their income increases to  $E + I + J$ .

## Gain/loss for the destination

Native-born workers in the destination country are disadvantaged because their wages decrease. Prior to immigration, these workers earned areas B + C. However, after immigration, their earnings drop to just area C. Meanwhile, other production factors in the destination, like capital owners, initially earn area A. Following immigration, their earnings increase to  $A + B + D$ .

## Gain/loss for origin country

In the origin country, wages rise due to the outflow of workers. Before immigration, the workers who stay behind (those who do not migrate) earn area H. After immigration, their earnings increase to  $G + H$ , resulting in a gain of area G. Initially, other production factors in the origin country earn  $F + G + I$ , but after immigration, their earnings decrease to area F.

**Therefore, the net gain from immigration is the area D + E.** The breakdown of this gain is given in Table 1.

**Table 1: Net gain from immigration**

Group	Without immigration	With immigration	Gain (or loss)
Immigrants	J	$J+E+I$	$E+I$
Destination country: Competing workers	$B+C$	C	B
Other factors of production	A	$A+B+D$	$B+D$
Origin country: Competing workers	H	$H+G$	Gain (or loss)
Other factors of production	$F+G+I$	F	$-(G + I)$
Net gains due to immigration			$D+E$

Source: Taken from Book: Cynthia Bansak Zebedee, Nicole Simpson, Madeline Zavodny. 2020. "The Economics of Immigration". 2nd Edition. Routledge

As is evident from the model, there is a global gain achieved by moving labour across borders.

Businesses and enterprises in the destination countries tend to reap substantial benefits from labour immigration which can be reinvested to further expand capacity and output in subsequent periods. This expansion, in turn, continues to attract more migrants. In a scenario of unrestricted global labour movement, this cycle perpetuates and accelerates economic growth for both the origin and destination countries, thus enhancing the overall growth potential of the global economy.

## 2.3 Benefits of labour migration

This section discusses the empirical evidence of the benefits and positive spillovers of global labour migration, substantiating the theoretical framework discussed in the previous section.

Workforce migration offers a slew of benefits for both the destination as well as the origin country. For the host economy, it helps in bridging labour shortages and productivity differential. Cross-border movement of skilled workers enables transfer of knowledge to host economies, which boosts innovation and global competitiveness. For the origin country, labour migration ensures a steady inflow of remittances income, a crucial tool aiding in poverty alleviation and economic stability. Overall, the diverse perspectives and experiences of migrant workers also help in fostering technological progress, business dynamism and entrepreneurial excellence in the home country.



Labour migration due to difference in wage rates can generate an overall larger pie for the economy and easing immigration restriction can be an effective way to reduce global income disparities. A study argues that the potential gains from easing immigration restrictions could be much higher than that from easing barriers to trade or capital flows. The estimated gains from eliminating barriers to labour mobility could result in gains ranging from 50% to 150% of world GDP, much higher than the expected gains from removing cross border trade and capital flow barriers.<sup>20</sup> The broader economic gains from labour migration are encapsulated below.

**Skills and innovation:** Global labour migration contributes to skill enhancement and innovation by attracting diverse talent and highly skilled labour to host countries. High-skilled migrants, especially in STEM fields, aid patent activity and technological innovations. For instance, a 1% point increase in the share of immigrant college graduates in the US correlates with a 15% rise in patents per capita.<sup>21</sup> While foreign-born inventors make up 16% of the US inventor population, they account for 23% of combined innovation output in the US (estimated using the number of patents filed, economic value of such patents and their citations).<sup>22</sup>



In the US, immigrants were responsible for about 22% of patents filed between 2000 and 2010<sup>23</sup> and in Canada, a 10% increase in highly skilled immigrants led to a 7.2% rise in patents.<sup>24</sup> Another study revealed that the H-1B visa programme, which attracts talent in science and engineering, significantly boosts patenting activities, reflecting increased innovation.<sup>25</sup> These contributions are supported by collaborative networks and labour mobility, fostering innovation.

**Entrepreneurship:** Global labour migration helps in boosting entrepreneurship and starting of new innovative enterprises. In the US, immigrants own 16% of high-tech firms and are 80% more likely to start new businesses compared to those born in the US. Immigrants are also founders of more than half of the startups in US that reach a valuation of USD 1 billion.<sup>26</sup> Further, around 45% of the companies that featured in the New American Fortune 500 list in 2023, were founded by either immigrants or their children.<sup>27</sup> In developing countries, remittances from migrants are critical for funding entrepreneurial ventures.

<sup>20</sup> Michael Clemens. 2011. "Economics and Emigration: Trillion-Dollar Bills on the Sidewalk?" *Journal of Economic perspective*. 25(3)83-106

<sup>21</sup> Jennifer Hunt and Marjolaine Gauthier-Loiselle. 2010. "How much does immigration boost innovation". NBER Working Paper no. 14312

<sup>22</sup> Forbes. 2023. Highly Skilled Immigrants Drive U.S. Innovation, Report Shows

<sup>23</sup> Prato, M. 2022. "The global race for talent: Brain drain, knowledge transfer, and growth. *Knowledge Transfer, and Growth*"

<sup>24</sup> Partridge, J. & Furtan, H. 2008. "Increasing Canada's International Competitiveness: Is there a link between skilled immigrants and innovation"

<sup>25</sup> American Immigration Council. 2025. The H-1B Visa Program and Its Impact on the U.S. Economy

<sup>26</sup> Forbes. Most Billion-Dollar Startups In The U.S. Founded By Immigrants

<sup>27</sup> American Immigration Council. Special Report. "New American Fortune 500 in 2023"

**Demographic enrichment:** Migrants play a vital role in filling labour force gaps in destination countries, especially in sectors with shortages of local workers, while providing employment for disguised worker in origin. This demographic boost is essential for aging societies that need a steady influx of younger workers to sustain economic growth. In regions like Latin America and the Caribbean, where the population aged 60 and older is projected to double by 2050, labour migration is crucial for sustaining economic and social vitality.<sup>28</sup>

**Remittances:** World Bank's report reveals a significant rise in international remittances, from USD 128 billion in 2000 to USD 857 billion in 2023. Low- and middle-income countries are the primary beneficiaries of remittance flows while high-income countries like the US, Saudi Arabia and Switzerland are the main sources of remittances. In 2023, India, Mexico, China, the Philippines and Pakistan were the top five recipient countries for remittances inflows.<sup>29</sup>

**Economic growth:** Global labour migration has been a strong driver of economic growth, both for the destination as well as the origin economy. Migrants contribute sizably to their host countries' GDP through increased labour force participation, labour productivity, innovations, entrepreneurship and consumption while also sending remittances that boost their home countries' economies. For example, in the European Union, non-EU citizens have filled essential roles, helping alleviate labour shortages and increase economic output. ASEAN countries like Thailand and Malaysia witness substantial contributions from migrant labour, driving economic expansion in diverse sectors.



A closer look at the episodes characterised by large waves of immigration suggests positive economic impact of labour migration on destination countries. A study by IMF estimates that a 1% point increase in the inflow of immigrants relative to total employment in advanced economies increases output by almost 1% by the fifth year.<sup>30</sup> Furthermore, a simulation exercise conducted by the IMF for the period from 2020 to 2050 shows that while the growth in the native population is likely to increase global GDP by roughly 4% (from the baseline) between 2020 and 2050, labour migration flows could contribute to an additional 2% to global growth.<sup>31</sup>

Thus, the economic benefits of labour migration are manifold, substantially impacting global and regional economies. High-skilled migrants enhance innovation and entrepreneurship, evidenced by their substantial contributions to patents and business startups in countries like the US. Remittances from migrants, which surged to USD 857 billion globally in 2023,<sup>32</sup> play a critical role in supporting economies in low- and middle-income countries. Overall, global labour migration has positive impacts on economic growth, with studies signalling that large immigration waves have historically boosted the economies of destination countries. A study by IMF estimates that a 1% point increase in the inflow of immigrants relative to total employment in advanced economies increases output by almost 1% by the fifth year.

<sup>28</sup> [IOM UN Migration, The 3 Benefits of International Migration That Transform Economies and Societies Around the World](#)

<sup>29</sup> [World Bank Migration Data Portal](#)

<sup>30</sup> [IMF World Economic Outlook, April 2020: The Great Lockdown](#)

<sup>31</sup> [IMF World Economic Outlook, April 2020: The Great Lockdown](#)

<sup>32</sup> [World Bank Migration Data Portal](#)





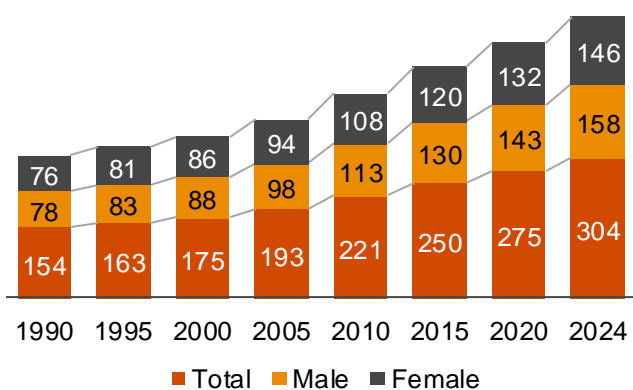
## 03

# Current dynamics of global workforce migration

### 3.1 Global overview of migration patterns

The growing global migrant stock<sup>33</sup> reflects the surge in the numbers of immigrants residing in destination countries. As per the data from a United Nations' report, the volume of persons living outside their country of origin peaked at 204 million in 2024 (3.7% of the world's total population; 60% international migrant workers) from nearly 221 million in 2010 (38% increase) due to economic, socio-economic, geopolitical, and environmental advancements.<sup>34, 35</sup>

**Figure 6: Trends for international migration stock (1990-2024 in millions)**



Source: [United Nations Department of Economic and Social Affairs, Population Division \(2025\), International Migrant Stock 2024](#)

### Workforce migration: Linking low, middle and high income groups

An important trend can be observed regarding origin of 181 million (60%) international migrants from middle income countries in 2024<sup>36</sup> in order to pursue better employment opportunities and pull factor of comparatively high monetary compensation in high income countries. Since the last 20 years, high income countries have steadily emerged as the preferred destination countries of immigrants from middle income countries particularly. More than 199 million (65%) live in high income countries and around 89 million (29%) reside in middle-income countries, and around 14.3 million (4.7%) in low-income countries. Among the high income countries, the largest number of migrants live in Europe followed by Northern Africa and Western Asia.

Further, international migration trends reveal a steady flow of migrants in high income countries (with the US, Germany and Saudi Arabia emerging as top destinations). Key countries of origin include India, followed by China and Mexico. These patterns are enabled by economic opportunities, education prospects and family reunification, thereby reflecting a strong South-to-North migration trend. Additionally, intra-regional migration can also be observed, especially within Europe and Africa, led by geographic proximity and shared socio-economic ties.

<sup>33</sup> Note: Migrant stock is a static measure of the number of persons that can be identified as international migrants at a given time

<sup>34</sup> [International Organization for Migration \(IOM\), World Migration Report 2024, Geneva: IOM, 2024, Accessed February 1, 2025](#)

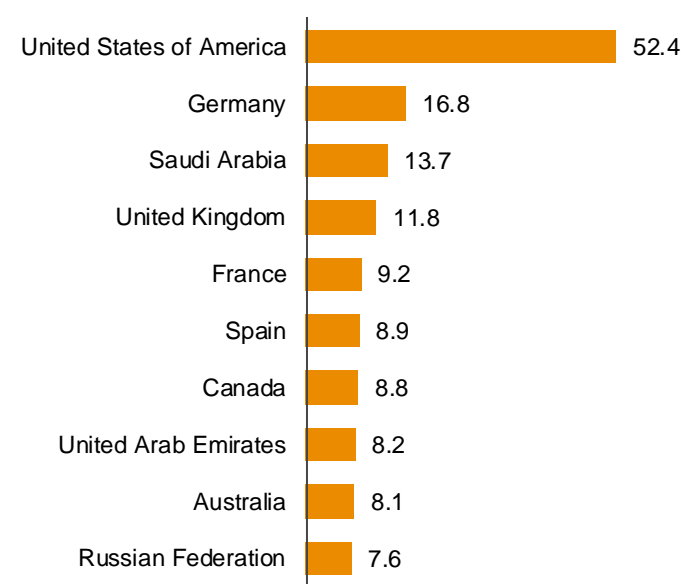
<sup>35</sup> [United Nations Department of Economic and Social Affairs \(UN DESA\), Population Division, International Migrant Stock 2024, United Nations, 2024, Accessed February 15, 2025.](#)

<sup>36</sup> [United Nations Department of Economic and Social Affairs \(UN DESA\), Population Division, International Migrant Stock 2024, United Nations, 2024, Accessed February 15, 2025.](#)

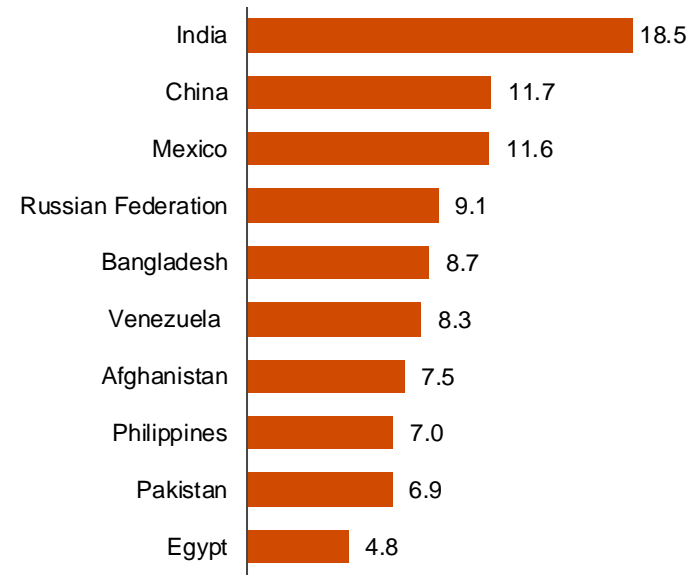


**Figure 7: Data on migrant population across top destination and origin countries**

**Top ten destination countries for international migrants in 2024 (in millions)**



**Top ten countries of origin for international migrants in 2024 (in millions)**



Role of migrants in filling critical labour gaps in destination countries

Role of diasporas in the development of countries of origin in promoting foreign investment, trade, innovation, access to technology and financial inclusion

Source: [United Nations Department of Economic and Social Affairs, Population Division \(2025\). International Migrant Stock 2024](#)

**Mapping the evolving trends across global migration corridors**

Several major migration corridors have emerged, reflecting the predominant routes of movement and concentration of migrants. Among the migration corridors, the India-Gulf Cooperation Council (GCC), India-US and Southeast Asia are the prominent corridors with respect to flow of migrants.

These migration corridors often act as paths nurtured by historical linkages such as colonialism, common languages and cultures or even historical trade routes. Economic factors are key for these corridors since a lot of people migrate to places that have attractive salaries, promising jobs or potential markets and industries to capitalise on.

The major trends in these corridors are depicted in Figure 8.





Figure 8: Major migratory corridors

India-GCC	The movement of Indians into the Gulf Cooperation Council has been a historical phenomenon. In FY 2021-22, India recorded the highest ever foreign inward remittance of USD 89,127 million. Out of this amount, 28.6% of the total remittances was from the UAE, Saudi Arabia, Kuwait, Oman and Qatar. With the highest share of remittance coming in from UAE. The high demand for labour in the construction and maintenance sector has attracted many low and semi-skilled workers into the GCC.
India-USA	Over the years, the India-USA migratory corridor has strengthened since the boom of the IT sector. The outflow of high skilled workers to the USA has reflected on the level of remittances which stood at 23.4% of the total inward remittances in FY 2021-22. The strong presence of the Indian diaspora also acts as enabling facet of successful migration.
Southeast Asia	Migration flows within Southeast Asia have grown, with countries like Indonesia, the Philippines and Myanmar sending domestic workers and labour migrants to developed nations such as Singapore and Malaysia. The overall International Migrant Stock for Eastern and Southeastern Asia is 22.5 million.

Source: [United Nations Department of Economic and Social Affairs, Population Division \(2025\). International Migrant Stock 2024](#); [RBI Remittance Survey 2021](#)

In order to understand the policy environment in top destination countries such as the US and UAE with respect to migration, an analysis was conducted to understand economic diversification, employment potential and new opportunities. It can be noted that strong bilateral relations and multi-stakeholder partnerships between the countries for migration and mobility, skill recognition, remittances flow and other welfare measures can catalyse migration flow.

Table 2: Economic diversification, employment projections and emerging job roles in the UAE and the US

Country	Economic diversification landscape and industrial trends	Employment projections	Emerging job roles
<p>The UAE GDP growth rate (2023): 3.6%</p> <p>Total Population (2025): 11.35 million</p> <p>Median Age (2025): 31.6</p>	<ul style="list-style-type: none"> <li>Vision 2030 envisages to create 27,000 new jobs by 2030 and raise the industrial sector's contribution to the GDP to AED 300 billion by 2031 through the Dubai Industrial Strategy 2030, Operation 300 billion and the Dubai 3D printing strategy.</li> <li><b>Priority sub sectors</b> – aerospace, maritime, aluminium and fabricated metals, pharmaceuticals and medical equipment, food and beverages, machinery and equipment.</li> <li>Dubai Tourism Vision 2027 aims to attract 25 million tourists by end of the 2025.</li> </ul>	<ul style="list-style-type: none"> <li>UAE Green Jobs Programme estimates the <b>creation of over 83,000 green jobs by 2030</b> in renewable energy, waste management and recycling, tourism, and transport as more sustainable practices are adopted.</li> <li>The Dubai Metaverse Strategy will <b>support 40,000 virtual jobs and add USD 4 billion</b> to the Emirate's economy in five years.</li> </ul>	<ul style="list-style-type: none"> <li>Due to the UAE government's ambitious aspirations to make UAE one of best places to live and work in the world, there will be upcoming job opportunities in infrastructure and manufacturing, tourism related occupations along with future focused job roles such as data science, artificial intelligence, IT and coding, Hi-Tech (Metaverse, Blockchain, cybersecurity, digital leadership (innovation, digital transformation etc.)</li> </ul>

Country	Economic diversification landscape and industrial trends	Employment projections	Emerging job roles
	<p>UAE National Strategy for Advanced Innovation focuses on green power, transport, future skills, health and technology to achieve the goals of <b>UAE Centennial 2071</b>, which aims at diversifying the imports and the exports, investing in education focusing on advanced technology, raising productivity of the national economy.</p>	<ul style="list-style-type: none"> <li>The <b>Abu Dhabi Sustainability Week Future Skills 2030</b> report has highlighted 14 critical skills that will be important to drive future jobs by 2030 – entrepreneurship and self-promotion, self-development and emotional intelligence, STEM, etc.</li> </ul>	
<p><b>The US GDP growth rate (2023): 2.9%</b></p> <p><b>Total population (2025): 346 million</b></p> <p><b>Median age (2025): 38.3</b></p>	<p>The US aims to enhance investment in ‘<b>strengthening supply chains</b>’ for enabling growth in the manufacturing sector and food supply.</p> <ul style="list-style-type: none"> <li>The US economy is projected to grow by 2.7% and 2.1% in 2025 and 2026, as per World Economic Outlook Update, January 2025</li> <li><b>Key sectors having employment gains</b> - health care, retail trade, and social assistance</li> </ul>	<ul style="list-style-type: none"> <li>The US economy is projected to increase 6.7 million jobs from 2022 to 2033 (total employment of 174.6 million) in the following sectors:</li> <li>Healthcare 8.6 % growth rate</li> <li>Community and social service occupations – 8.1% growth</li> <li>Computer and mathematical occupations – 12.9% growth rate</li> <li>Construction and extraction occupations – 5.6% growth rate</li> <li>Installation, maintenance, and repair occupations – 5.3% growth rate</li> </ul>	<ul style="list-style-type: none"> <li>Due to ageing population, there will be rise in demand for health and personal care workers, nurse practitioners, and related staff.</li> <li>Data scientists, analysts, forecasters, etc due to advancements in IT, cybersecurity and AI.</li> </ul>

Source: GDP growth rate captured from World Bank<sup>37</sup>, population and median age captured from United Nations data portal, Population Division; Gross output by industries, US Bureau of Labour Statistics (December 2024), Employment Projections: 2023-2033 Summary, US Bureau of Labour, Vision 2030 UAE

## Understanding mobility partnership agreements and frameworks which facilitate workforce migration and mobility

There are various international migration and mobility partnership agreements existing globally, including ASEAN Qualifications Reference Framework (AQRF), International Standard Classification of Occupations (ISCO-08), Pacific Qualifications Framework (PQF) and European Qualifications Framework (EQF) such as EUROPAS. These frameworks act as essential tools for meeting the global workforce market requirements and help in benchmarking the skills and qualification of the migrant workforce as per global standards, thereby enhancing transparency, social inclusion in destination country, comparability of qualifications and life-long learning prospects. Further, such frameworks facilitate in simplifying cross border hiring and recruitment processes, which particularly<sup>38</sup> benefits employers facing skills shortages.<sup>39, 40</sup>

<sup>37</sup> [World Bank. GDP Growth \(Annual %\). Accessed January 28, 2025.](#)

<sup>38</sup> [African Skills Portal for Youth Employment and Entrepreneurship \(ASPYYE\). Understanding the Potential Impact of Skills Recognition. n.d.](#)

<sup>39</sup> [Kitto, Kirsty. 2024. "Will a Skills Passport Ever Get Me Through the Lifelong Learning Border? Two Critical Challenges Facing Personalised User Models for Lifelong Learning." In Proceedings of the 32nd ACM Conference on User Modeling, Adaptation and Personalization \(UMAP '24\), July 1–4, 2024, Cagliari, Italy. ACM, New York, NY, USA.](#)

<sup>40</sup> [Shah, Chandra, Michael Long, and Joel Windle. 2007. "Recognition of Skills and Qualifications: Labour Mobility and Trade in Services." Centre for the Economics of Education and Training, Monash University.](#)



**Figure 9: Skill Qualification Frameworks**

<b>ASEAN Qualifications Reference Framework (AQRF)</b>	<ul style="list-style-type: none"> <li>• Southeast Asian Ministers of Education Organization Regional Centre for Higher Education and Development (SEAMEO RIHED) proposed a framework in 2007 for regional higher education integration, aiming to establish a common space by 2015. This proposal led to the creation of the ASEAN Qualifications Reference Framework (AQRF), supported by the ASEAN-Australia New Zealand free trade area.</li> <li>• The AQRF, developed between 2010 and 2015, is an eight-level reference framework designed to facilitate comparisons of qualifications across ASEAN, promote lifelong learning, enhance mobility, and improve qualification systems by focusing on learning outcomes.</li> <li>• The framework requires ASEAN member states to align their National Qualification Frameworks (NQFs) with AQRF standards, ensuring mutual recognition and quality assurance across the region.</li> </ul>
<b>International Standard Classification of Occupations (ISCO-08)</b>	<ul style="list-style-type: none"> <li>• ISCO is a global system for classifying and aggregating occupational information, replacing ISCO-88.</li> <li>• It organises jobs into 436-unit groups, 130 minor groups, 43 sub-major groups, and 10 major groups based on skill level and specialisation.</li> <li>• Developed from 2003 to 2008, ISCO-08 addresses the need for internationally comparable occupational data due to labor market globalisation. It serves as a model for national and regional classifications and can be used directly in countries without their own systems.</li> <li>• ISCO-08's hierarchical structure accommodates all jobs worldwide, aiding labor market analysis and policymaking.</li> </ul>
<b>European Qualifications Framework (EQF) – EUROPASS)</b>	<ul style="list-style-type: none"> <li>• The EQF is an eight-level framework based on learning outcomes. It was established in 2008 and revised in 2017. The EQF aims to make national qualifications more understandable and comparable across Europe.</li> <li>• It links national qualifications frameworks, providing a comprehensive map of qualifications in Europe.</li> <li>• The EQF includes participation from EU member states and 11 other countries. It is supported by the EQF Advisory Group, European Centre for the Development of Vocational Training (CEDEFOP), and the European Training Foundation.</li> <li>• Clear relationships between national and EQF levels are maintained and reflected in qualifications documents and databases, facilitating clarity and understanding across countries.</li> </ul>
<b>Pacific Qualifications Framework (PQF)</b>	<ul style="list-style-type: none"> <li>• The Pacific Qualifications Framework (PQF) seeks to enhance education quality in the Pacific region. It establishes a regional qualifications system aligned with international standards. The Educational Quality and Assessment Programme (EQAP) developed it with funding from Australian Aid, following extensive consultations.</li> <li>• The PQF consists of ten levels, from basic certificates to doctoral degrees, covering all education levels for a structured approach to qualifications.</li> <li>• The PQF offers internationally recognised, quality-assured qualifications, aiding regional trade and economic growth.</li> <li>• As a meta-framework, the PQF promotes cross-border qualification recognition, lifelong learning, and socio-economic development. It addresses social inclusion, international comparability and quality assurance, aligning them with regional and global standards.</li> </ul>

Source: [Association of Southeast Asian Nations. 2025. ASEAN Qualifications Reference Framework](#); [International Labour Organization. "International Standard Classification of Occupations \(ISCO\)"; European Union. "European Qualifications Framework: Educational Quality and Assessment Programme, Pacific Community. Pacific Qualifications Framework Revised 2018](#) (Information accessed on February 10, 2025)

### 3.2 Key factors enabling migrants' demand overseas and benefits for the key stakeholders

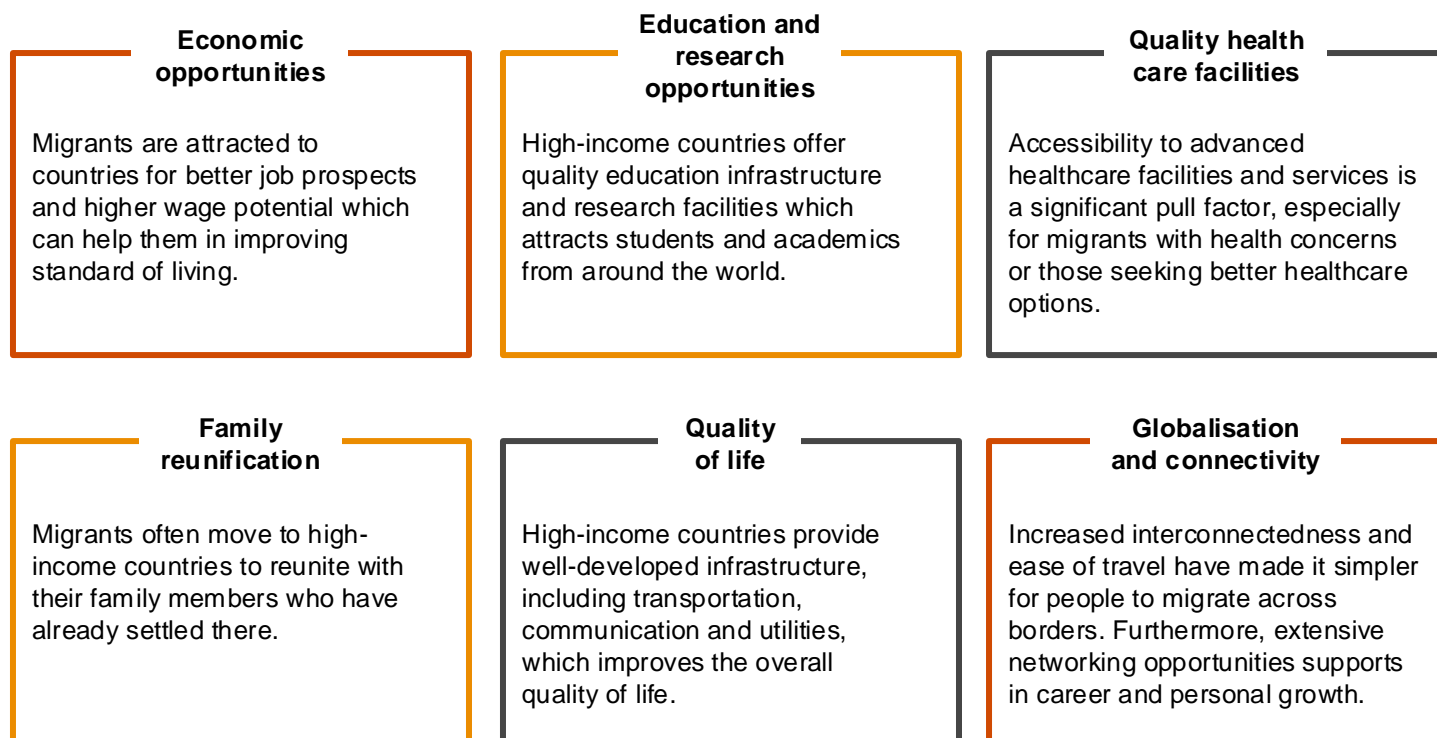
Distinct migration trends have been observed across Europe and North America. Better economic opportunities, family reunification possibilities and higher standards of living are the key attractions for migrants moving from Central and South Asian Countries to these economies. In Northern Africa and Western Asia, workforce migration is primarily influenced by oil-rich economies. Sectors such as AI, IT, healthcare, social care and cybersecurity provide largest number of employment opportunities in high-income countries – Australia, Canada, the US and the UK.

**Figure 10: Distinctive migration trends across regions**



Source: PwC analysis

Some of the pull factors driving migration across destination countries from origin countries are as following:





Labour shortages vary substantially across occupations overseas. For instance, in the Organisation for Economic Co-operation and Development (OECD) economies, there was rise in job vacancies in 2021 particularly in manufacturing, IT, media and communications, tourism and hospitality, food services and healthcare.<sup>41</sup> Further, in 2022, the US Chamber of Commerce<sup>42</sup> highlighted workforce gaps in sectors such as transportation, healthcare and social work. While in European Union (EU) region, workforce shortages are observed in labour intensive sectors such as construction and manufacturing and healthcare sector.<sup>43</sup>

### Understanding the benefits of migration for individuals, and countries of origin and destination

Better work opportunities, enhanced quality of life and higher wages are primarily the deciding factors for the individuals for relocation to another country. As per the IOM report,<sup>44</sup> international remittances for families residing in the same country as the migrant jumped by 650% from USD 128 billion in 2000 to USD 831 billion in 2022. This further facilitates them to secure their social wellbeing with respect to education and access to quality healthcare. Apart from the economic gains, migration also enhances an individual's exposure to different culture, skills and experiences.

**Figure 11: Benefits for individuals and countries**

#### The dual benefits of enhanced migration and labour mobility

	Origin country	Destination country
<b>Economic</b>	Remittances bolster GDP and fund infrastructure and services.	Migrants fill labour shortages and contribute to economic growth.
<b>Social mobility</b>	Family members can access better education and healthcare.	Migrants improve their living standards and social networks.
<b>Skill development</b>	Exposure to new skills indirectly benefits the community.	Acquisition of advanced skills, training, and certifications.
<b>Labour market</b>	Reduced unemployment due to workforce migration.	Availability of workers in key sectors boosts productivity.
<b>Cultural exchange</b>	Migrants bring back diverse experiences and ideas.	Exposure to diverse cultures broadens personal perspectives.
<b>Knowledge transfer</b>	Migrants return with new skills, fostering innovation locally.	Migrants bring diverse expertise and innovation to industries.
<b>Global cooperation</b>	Strengthened diaspora connections promote international relations.	Collaboration on global migration policies facilitates shared growth.

Source: PwC analysis

For host countries, migration enables economic goals (enhanced FDIs and remittances), address skill gaps and promote cultural diversity. Migration supports skills-based knowledge transfer across countries, promotes innovation and strengthen global networking and collaboration. It may be noted that the positives of migration go far beyond economic benefits and contribute towards global sustainable development.

<sup>41</sup> [OECD. 2022. The Post-COVID-19 Rise in Labour Shortages. Paris: OECD Publishing.](#)

<sup>42</sup> [U.S. Chamber of Commerce. "Understanding America's Labor Shortage: The Most Impacted Industries." Last modified February 11, 2025.](#)

<sup>43</sup> [International Labour Organization. World Employment and Social Outlook: Trends 2024. Geneva: International Labour Office. 2024. Accessed February 6, 2025](#)

<sup>44</sup> [World Migration Report 2024](#)



## 04 Barriers to global workforce mobility

The following section highlights global migration trends based on five key barriers which are impacting global workforce mobility and migration.

### 4.1 Lack of institutional frameworks for enhancing safe, smooth and regular migration

Strong institutional frameworks are important to monitor migration movements between the origin and destination countries. When bilateral relations are strong between the nations, issues faced by the immigrants are streamlined through effected channels, thereby facilitating the requirements of both host and destination countries, as the immigrant's concerns are steadily catered to. Some examples which highlight the impact of weak institutional frameworks are:

**1 Absence of or unstructured Bilateral Labour Migration Agreements (BLMAs):**<sup>45</sup> This impacts administering regular migration, facilitating effective readmission as well as economic and social relations between nations.<sup>46</sup>

**2 Low priority for inclusion of mobility arrangements agenda in Free Trade Agreements (FTAs):** While various countries are pursuing inclusion of mobility agreements in their respective contracts (e.g. India has pursued mutual recognition agreements (MRAs) in multiple agreements to foster their service suppliers recognition (for professional services) across sectors) however, these need to be established universally. Without these MRAs, the possible gains from FTAs can be affected particularly affected the mobility of immigrants to move across borders.

**3 Absence of Social Security Agreements (SSAs):** These impact accessibility of essential social security benefits by the immigrants, thereby affecting their integration in the destination countries.<sup>47</sup> These may be further accentuated by restrictive legal modalities and low awareness among immigrants.<sup>48</sup>

<sup>45</sup> [International Labour Organization \(ILO\). Policy Coherence and Labour Migration. Accessed January 21, 2025](#)

<sup>46</sup> [Cholewinski, Ryszard. 2015. "Evaluating Bilateral Labour Migration Agreements in the Light of Human and Labour Rights." In The Palgrave Handbook of International Labour Migration, edited by Marion Panizzon, Gottfried Zürcher, and Elisa Fomalé, 231–252. London: Palgrave Macmillan.](#)

<sup>47</sup> [Tiwari, Atul Kumar, Dhananjay Ghei, and Prema Goel. 2017. "Social Security Agreements \(SSAs\) in Practice: Evidence from India's SSAs with Countries in Europe." National Institute of Public Finance and Policy Working Paper No. 203. Accessed February 15, 2025.](#)

<sup>48</sup> [Martin, Philip L. 2010. "The Recession and Migration: Alternative Scenarios." World Development 38 \(6\): 859–868.](#)



## 4.2 Lack of a common international reference framework

Each country has its own unique skilling framework and workforce requirements shaped by their socio-economic priorities. One of the challenges which emerges with global workforce migration is streamlining and benchmarking the existing skillsets of the workforce in both destination and host countries. This can be further complicated in situations wherein international reference frameworks are not available.

For individuals, this results in significant wage penalties and low returns in investments with respect to their educational qualifications while businesses are impacted in terms of turnover and workforce productivity. This highlights the emergent need to adapt a common international reference framework globally to cater to the emerging global skill gaps and enhance labour mobility (ILO,2023).<sup>49</sup>

## 4.3 Barriers emerging out of cultural diversities

It has been observed that migrants face issues in integration due to low understanding of the cultures in the destination countries in cases where cultural sensitivity training is not covered in pre-departure trainings. Due to limited proficiency in linguistic standards, communication is also affected both at the personal and professional front.

Employers are also reluctant to hire workforce who have low fluency in the local language in the destination country as this could impact work and increase the possibility of errors and conflicts at workplace. This is perceived as discrimination at the time of hiring process by immigrants affecting their accessibility to their employment and successful integration.

## 4.4 Channels for high-cost remittances

Remittances emerge as an important channel for foreign exchange earnings across many low- and middle-income countries (LMICs) in the Asia and Pacific region and have an impact on the household incomes and overall livelihood including life quality. This trend has increased significantly after the COVID-19 pandemic as foreign direct investments flow has slowed in LMICs.<sup>50</sup>

However, there exists a high cost for sending remittances by many migrants which acts as a barrier primarily in developing regions. In the fourth quarter of 2023, the global average cost of sending USD 200 was 6.4%, which is 0.2 percentage points higher than the previous year and more than double the target set by the Sustainable Development Goal 10.c.1 of reducing remittance costs to 3%. This significantly points towards the barriers existing in achieving lucrative remittance transfers globally.<sup>51</sup>

According to the analysis of key channels for sending remittances globally, most expensive are the **banks** due to complex processes which at times are outdated and involves intermediary as well as conversion charges as per the respective currency.

While comparatively less costly options are post offices and money transfer operators (MTOs) (average costs: 7.7% and 5.5, respectively)<sup>52</sup> Money transfer operators stands somewhere in middle while being affordable comparatively with post office. Here, mobile operators emerged as the cheapest alternative. This trend points towards the increase in the usage of mobile money services which provide speedy transfers and low operational costs in comparison to other channels. This may be further strengthened with enhancing scalability and internal availability particularly in remote areas for mass adoption.

## 4.5 Two-pronged impact of 'lottery of birth'

'Lottery of birth'<sup>53</sup> plays an important role in deciding migration success although migrant's personal capabilities and environment nurture their aspirations to a large extent. This can impact workforce migration in two ways – displaced populations and the population affected by ineffective migration structures and processes. Due to lack of collaborative efforts by the relevant stakeholders in the migration set up, potential migrants are impacted due to complex migration processes. Some of the challenges related to this are navigating visa processes and legal regulations, failure to secure a work visa and valid sponsors.

<sup>49</sup> Wang, Zhiling, Peter Nijkamp, and Thomas de Graaff. 2019. "Barriers of Culture, Networks, and Language in International Migration: A Review." *GeoJournal* 84 (1): 117–137.

<sup>50</sup> Clemens, Michael A., and Hannah M. Postel. 2022. "Can Development Assistance Deter Emigration?" *World Development* 151: 105744.

<sup>51</sup> Ahmed, Junaid, Mazhar Mughal, and Inmaculada Martínez-Zarzoso. 2021. "Sending Money Home: Transaction Cost and Remittances to Developing Countries." *The World Economy* 44 (8): 2433–2459.

<sup>52</sup> United Nations Department of Economic and Social Affairs (UN DESA), Population Division. *International Migrant Stock 2024*. United Nations, 2024. Accessed February 21, 2025.

<sup>53</sup> *World Migration Report 2024*. Geneva: International Organization for Migration. Accessed February 5, 2025.



## 05 Leveraging India's demographic dividend

### 5.1. Harnessing the potential of India's demographic dividend

India, having recently surpassed China as the world's most populous country, is well-positioned to address the shortfalls in the labour markets of many advanced economies. With a population exceeding 1.4 billion, nearly 65% of which are of working age (15-64 years) and over 27% aged 15 to 24, India's relatively young demographic profile has the potential to create a significant, positive impact on the global labour market. As one of the world's fastest-growing large economy, India boasts a GDP growth rate of 8.2% in 2023-24, driven by strong private consumption and public investments. As a result, the country is now on track to achieve its ambitious target of becoming a USD 5 trillion economy by 2026-27.<sup>54</sup>

Global workforce mobility can leverage India's demographic dividend to enable seamless cross-border movement in professional and personal spheres. India's large English-speaking, highly skilled workforce is a critical asset which contributes to the economies of destination countries. A substantial wealth of resources and AI skill penetration three times the global average positions India as a prominent contender in this transformative field.<sup>55</sup>

Heavy investments in AI research and skilling programmes, coupled with initiatives such as the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), the Skill India Mission and Digital India aims to uplift millions by providing internationally standardised education and training.

India's growing interest in developing and promoting regional and global economic partnerships underscores its readiness to facilitate the flow of skilled labour. For instance, Germany's strategic focus on expanding mobility agreements highlights India's capacity to meet the demands of digital and green economies.<sup>56</sup> Similarly, India's collaboration with Japan under the Specified Skilled Worker programme addresses Japan's labour shortages by empowering individuals for global opportunities.<sup>57</sup>

The global labour landscape is witnessing significant demographic transitions owing to a substantial decline in population growth rates in advanced economies and, therefore, a surge in their dependency ratios. Countries like Germany, Italy, Japan and South Korea are grappling with shrinking working-age populations, leading to commensurate reductions in labour supply and employment rates and a slowdown in GDP growth rates. For instance, in the EU, projections indicate that the contribution of labour supply to economic growth will turn negative as hours worked decrease.<sup>58</sup>

<sup>54</sup> <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1549454>  
Soumya Bhowmick, "Bridging Global Workforce Gaps: An Indian Perspective," Observer Research Foundation, May 31, 2024.

<sup>55</sup> Wheebox, India Skills Report 2024. Accessed February 27, 2025.

<sup>56</sup> Financial Express, "Indo-German Mobility and Skill Development in Focus Amidst Government Consultations," Financial Express, October 20, 2024.

<sup>57</sup> National Skill Development Corporation (NSDC), "Specified Skilled Worker," Accessed February 27, 2025.

<sup>58</sup> European Central Bank (ECB), "The Implications of Ageing Populations for the Potential Growth of the Euro Area," ECB Economic Bulletin, Issue 4, 2021. Accessed February 27, 2025.

Japan, which experienced a population decline during the Heisei era (1989–2019) and South Korea, confronting a dwindling youth population and rising ageing population, exemplify this trend. These demographic shifts result in a lower human capital pool and reduced labour productivity, undermining the prospects of long-term economic resilience. While automation and AI offer complementary solutions, they still serve as a piecemeal approach to addressing the nuanced challenges posed by ageing societies. These dynamics underline the urgency for global labour mobility where labour-endowed nations like India can supply skilled workers to labour-scarce economies, fostering mutual economic growth and resilience.

In 2024, the United Arab Emirates (UAE) engaged in discussions with India to finalise migration and mobility agreements, focusing on the welfare of Indian workers and enhancing consular cooperation. Streamlining visa processes and promoting greater people-to-people exchanges have been highlighted as critical imperatives to leverage India's capacity to meet the demands of evolving economic sectors.<sup>59</sup> Similarly, Australia and India co-signed the Migration and Mobility Partnership Arrangement (MMPA) in May 2023, which includes the Mobility Arrangement for Talented Early-career professionals Scheme (MATES). This scheme facilitates the mobility of graduates and early-career professionals, particularly in sectors like renewable energy, mining, engineering and information technology, highlighting India's role in supplying skilled talent for Australia's digital and green economies.<sup>60</sup>



With a 20% increase in migrating Indian workers over the past five years, the Indian government is developing a National Migration Policy to protect the rights of these workers, streamline their mobility and ensuring access to welfare resources.<sup>61</sup> The Union Budget 2024 prioritised skilling, education, financial support, infrastructure development and health services with an aim to create a workforce that is not only large but also highly skilled, productive and capable of meeting global standards. As the only country where the workforce supply is growing faster than the demand, India is a hub for organisations which are seeking trained professionals and for professionals who are seeking dynamic career opportunities. The opportunity is particularly ripe in labour-intensive industries and sectors like technology and healthcare where India's workforce demonstrates remarkable skill readiness. Developed countries benefit from cost efficiencies and economies of scale by hiring Indian labour at relatively lower costs, even after accounting for relocation expenses, while India gains from remittances, lower unemployment rates and enhanced human capital.

However, as India continues to deal with the imperative for creating jobs, especially for the youth, it is also prompting the government to view employment-based migration as a strategic pathway to reduce domestic unemployment while aligning with global labour demands. This dual approach can address skill mismatches within the country and also ensure that India's growing workforce contributes effectively to global markets.

Recent trends reveal a shift in the preferences of Indian workers seeking opportunities abroad. The UAE is no longer the top destination, with Australia, the US, Canada, Germany, and the UK emerging as favoured choices. Additionally, countries like the Netherlands and New Zealand are gaining favour due to inclusive immigration policies, flexible work visas and abundant career progression opportunities.<sup>62</sup>

However, challenges related to workforce mobility persist. Systems supporting labour mobility often fall short of achieving their intended outcomes due to negative public perceptions, anti-immigrant sentiments and restrictive immigration policies in many high-income countries. Cultural issues, complex immigration processes, and inadequate social protection or support systems exacerbate the situation. The COVID-19 pandemic further impacted migrant workers, particularly those in low-skilled jobs, leading to job losses and financial distress.

<sup>59</sup> [Shashank Singh, "India-UAE Progress on Migration Agreements and Mobility Pacts," VisaVerge, May 18, 2024.](#)

<sup>60</sup> [Australian Government Department of Home Affairs, "Australia and India Become Closer Mates under New Mobility Arrangement," Accessed February 27, 2025.](#)

<sup>61</sup> [Wheebox, India Skills Report 2024, Accessed February 27, 2025.](#)

<sup>62</sup> [Times of India, "5 Countries That Offer Easy Work Visas for Indians," Times of India, March 29, 2024.](#)





Language proficiency remains a significant barrier, hindering the mobility and work efficiency of Indian candidates.<sup>63</sup> Moreover, variability in the quality of education and vocational training results in transferable skill gaps, which fail to meet the requirements of destination countries.

India-specific challenges compound these broader issues. A lack of robust domestic frameworks that can efficiently manage outbound migration often results in unregulated intermediaries exploiting aspiring workers. Additionally, the uneven distribution of skilling programmes across states creates disparities in employability, with rural and marginalised communities facing limited access to these opportunities. Despite efforts to improve language training and cultural adaptation programmes, these initiatives often remain underfunded and poorly implemented. Furthermore, inadequate tracking mechanisms for Indian workers abroad hinder the ability to address grievances and ensure their welfare, leaving many migrant workers vulnerable to exploitation and unsafe working conditions.<sup>64</sup>

Demographic theory, particularly dependency ratio, illustrates the growing challenges advanced economies face due to ageing populations. By 2050, the working-age population in many high-income countries is expected to shrink by over 92 million, while the elderly population (65 and older) will grow by more than 100 million.<sup>65</sup> This imbalance strains public finances, social security and healthcare systems, creating an urgent demand for over 400 million new workers in the next 30 years.<sup>66</sup> India's alignment of its labour supply with the needs of these economies can address this crisis, fostering mutual economic growth.

**Table 3: Countries with the highest share of population (aged 65 years or older) by 2050**

Country	Estimated population percentage (65 years or above) in 2050
Hong Kong	40.6
South Korea	39.4
Japan	37.5
Italy	37.1
Spain	36.6
Taiwan	35.3
Greece	34.5
Portugal	34.3

Source: World Economic Forum, "World's Oldest Populations: Asia's Health Challenge." Accessed February 27, 2025.

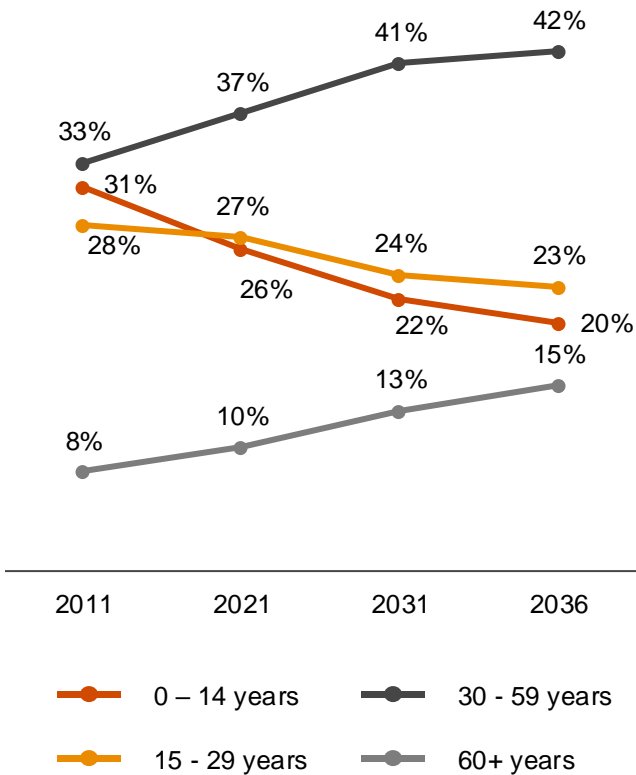
<sup>63</sup> [Wheebox, India Skills Report 2024. Accessed February 27, 2025.](#)

<sup>64</sup> [The News Minute, "Modern Day Slaves: How Indian Migrant Workers' Rights Are Violated in the Gulf," The News Minute, November 25, 2017.](#)

<sup>65</sup> [World Economic Forum, "Declining Working-Age Populations: Japan, Korea, Germany, Italy," Accessed February 27, 2025.](#)

Over the past decade, India has become a preferred hub for hiring skilled workers, with annual growth rates varying between 15 to 20%, primarily driven by ageing populations in developed countries. With a relatively young population (median age of 28.4 years), India has a competitive advantage in workforce availability supported by its youthful demography, which also presents significant consumption potential.<sup>67</sup> India's working-age population (below 35 years) is projected to grow from 62% to 68% by 2036, further strengthening its labour force.<sup>68</sup> The Global Skill Gap study by the National Skill Development Corporation has highlighted that there is an increased demand for talented workforce from India across IT, construction, healthcare, data analytics, engineering, and hospitality sectors. The Indian International Skilling Centre (IISC) Network is pivotal in addressing this demand, aiming to place 1,00,000 skilled Indian candidates overseas, training 2,50,000 through pre-departure orientation and certifying 25,000 workers through prior learning assessments.<sup>69</sup>

**Figure 12: Age distribution of India's population (in percentage)**



Source: International Labour Organization, India Employment Report 2024: Youth Employment, Education, and Skills. Accessed February 27, 2025

<sup>66</sup> [Labor Mobility Partnerships, "Why Labor Mobility?" Accessed February 27, 2025.](#)

<sup>67</sup> [Soumya Bhowmick, "Budget 2024: Unleashing India's Youth Capital," ORF Expert Speak, July 23, 2024.](#)

<sup>68</sup> [AS Mittal, "Opinion: Why It's the Perfect Opportunity to Deploy Indian Workforce in Developed Countries," News18, January 05, 2024.](#)

<sup>69</sup> [Economic Times, "India Poised to Fill Global Demand-Supply Gap of Skilled Workers," Economic Times, April 01, 2024.](#)

Labour mobility presents a pathway to enhance global equity and productivity. Projections indicate that low-income countries will have two billion new working-age individuals by 2050. Connecting such workers with employers in advanced economies can significantly boost incomes and help in alleviating poverty as workers can expect salary increases of 6 to 15 times.<sup>70</sup> For India as well as for other countries to leverage this potential, improving the quality of its labour force to meet global standards is imperative where country partnerships can address this issue.

Achieving workforce readiness to meet global standards involves enhancing skills and simultaneously addressing educational quality, healthcare access and language proficiency to prepare workers for competitive international markets. Despite the immense potential, India's workforce faces significant challenges to fully capitalise on this demographic advantage, including inadequate vocational training infrastructure, mismatches between education outcomes and industry needs, low female workforce participation and regulatory hurdles for overseas employment.<sup>71</sup>

Countries like South Korea and Singapore are examples of how countries can efficiently harness their demographic dividends since by investing in universal education, promoting a culture of lifelong learning and aligning policies with global economic demands, these nations have transformed their youthful populations into highly productive workforces which have sustained high rates of economic growth. India can draw lessons from these success stories while addressing its own unique challenges. By aligning workforce development strategies with global needs, Indian and other countries with potential demographic dividends can be channelled by labour deficit countries which can play a transformative role in shaping the future of the international labour market, driving mutual economic benefits for both the source and the destination countries.

## 5.2. Integrating human capital with labour productivity – leveraging India's demographic dividend

India's demographic advantage can only be fully realised by enhancing the productivity of its workforce through investments in human capital. Human capital refers to the accumulated skills, knowledge and health of a workforce, which collectively determines its productivity and potential economic contributions. Unlike traditional measures of labour productivity which focus solely on the number of hours worked or output per worker, human capital integrates qualitative dimensions, such as education, skill development and health to assess a workforce's capacity.

Historically, economic models treated labour primarily as a 'flow variable' – measured in terms of time engaged in production – while capital was seen as a 'stock' variable, accumulated and used over time. This approach, while useful, often failed to explain disparities in labour productivity across regions or sectors. The concept of human capital emerged as a corrective measure, recognising that workforce quality – encompassing education, skills, and health – plays a crucial role in augmenting the productivity of labour. For example, workers with higher educational attainment or specialised training contribute more effectively to economic output than those with limited skills, even when working similar hours.

Human capital is, therefore, distinct from labour. While labour refers to the total hours worked, human capital reflects the quality of those hours, shaped by factors such as schooling, vocational training and healthcare. Conceptually, human capital is akin to a stock variable, similar to physical capital, representing the cumulative investments in people over time. This aligns with UN's Sustainable Development Goals (SDGs) 1–5 and 8, which underscore the need for equity, efficiency and sustainability in workforce development.<sup>72</sup>

Investing in human capital addresses critical challenges such as poverty, unemployment and hunger while fostering sustainable economic growth. For instance, enhanced skilling and education reduces reliance on natural ecosystems for livelihoods, especially in rural areas, thereby supporting environmental conservation.<sup>73</sup> This dynamic is evident in parts of the Global South, where overdependence on natural ecosystems has strained resources and impeded development. By equipping workers with skills and knowledge, human capital development reduces ecosystem dependency, contributing to environmental sustainability and resilience.

Measuring human capital and its impact requires robust data and nuanced approaches. While indicators like school enrolment rates and average years of schooling offer insights, more sophisticated methods such as the cost approach (valuing investments in education and health) or the income approach (estimating returns on these investments) are essential to gauge human capital's contribution to economic growth. According to the UNEP Inclusive Wealth Report 2023, human capital constitutes the largest share of inclusive wealth globally despite its slower growth compared to physical capital.<sup>74</sup> Notably, low-income economies have recorded significant gains in human capital due to population growth and educational improvements, while high-income countries continue to dominate in absolute terms.


<sup>70</sup> Michael A. Clemens, Claudio Montenegro, and Lant Pritchett, "Bounding the Price Equivalent of Migration Barriers," IZA Discussion Paper No. 9789, March 2016. Accessed February 27, 2025.

<sup>71</sup> Financial Times, "How India can create more jobs," Financial Times, August 18, 2024.

<sup>72</sup> <https://sdgs.un.org/goals>

<sup>73</sup> Nilanjan Ghosh and Emil Uddhammar, "Tiger, Lion, and Human Life in the Heart of Wilderness: Impacts of Institutional Tourism on Development and Conservation in East Africa and India," *Conservation and Society* 11(4): p 375-390, Oct–Dec 2013, DOI: 10.4103/0972-4923.125750.

<sup>74</sup> United Nations Environment Programme, "Inclusive Wealth Report 2023: Measuring Sustainability and Equity," August 2023.



The Indian government's strategic focus on human capital development is evident in policies prioritising education, healthcare and skill enhancement. Initiatives like the Ayushman Bharat Yojana and the National Education Policy aim to improve workforce health and education, while programmes such as Skill India International Centres ensure global competitiveness. These investments enhance individual well-being and strengthen the nation's economic resilience against systemic shocks.

India ranks 116th among 174 countries in the Human Capital Index 2020, with a score of 0.49, up from 0.44 in 2018. The disparity between urban and rural education is stark, with 57.5% of urban residents completing secondary education compared to 30.6% in rural areas. Similarly, higher education completion rates stand at 21.7% in urban areas versus 5.7% in rural areas.<sup>75</sup> While India performs better than the global average on the gender inequality index, health and education expenditure gaps persist.

In a rapidly changing global economy, aligning human capital development with labour market demands is paramount. By bridging gaps in education, skills and health, India has the potential to transform its youthful demographic into a globally competitive workforce.

### 5.3. Bridging the global talent gap

The global workforce is a mix of workers with strong educational qualifications, valuable skill sets and a commitment to lifelong learning along with people who do not meet the criteria. In the context of rapid technological change and the rise of AI-driven industries, skilled workers are financially more secure and adaptable. Workers without such skills, however, face greater financial insecurity and barriers to accessing training for upskilling.

The PWC Global Hopes and Fear Survey 2023 reveals that nearly two-thirds of workers trust their employers to help them develop digital, analytical and collaborative skills. However, this confidence is significantly lower among workers whose jobs do not currently demand specialised training. Workforce mobility, often characterised by frequent employer transitions, creates a dual challenge for organisations – while skilled employees may leverage training to secure better opportunities elsewhere, companies investing in human capital development may struggle to retain employees long enough to realise productivity gains.<sup>76</sup>

According to UNEP's Inclusive Wealth Report 2023, human capital accounted for the largest share of inclusive wealth globally between 1990 and 2019, despite slower growth compared to physical or produced capital.<sup>77</sup> Low-income economies have recorded the most significant relative increases in human capital, driven by population growth and educational improvements. However, high-income countries still hold the largest absolute share of human capital within their inclusive wealth, highlighting its critical role in overall economic resilience. The COVID-19 pandemic underscored the need for active labour market policies integrating education, health, and mid-career training with broader workforce management strategies. However, similar to globalisation, technological advancements and demographic shifts, workforce migration has also emerged as an important factor for shaping global job markets. A comprehensive understanding of a country's human capital stock is essential for effective policy-making and workforce transition management. However, a persistent talent gap exists between developed and developing economies due to outdated education systems. A report from World Economic Forum notes that secondary education systems meet employment needs at rates of 59% in advanced economies and 42% in emerging economies. For tertiary education, the rates are 68% in advanced economies and 55% in emerging economies.<sup>78</sup>

In addition to education, factors such as inadequate resources, limited migration networks and insufficient access to technology also contribute significantly to the global talent gap. Even in developed countries, disparities in skill acquisition persist due to regional inequalities and socio-economic barriers. For instance, a report from the World Economic Forum highlights that access to quality training programmes and digital infrastructure often remains uneven, impeding inclusive workforce development.<sup>79</sup> Addressing these multifaceted challenges requires a holistic approach beyond education, including equitable resource allocation and improved labour mobility networks.

### 5.4. Replicable public and private sector intervention models for workforce mobility in India

Workforce mobility has become a global priority as nations grapple with demographic transitions, skill shortages and evolving job markets. Advanced economies like Germany, Japan and Canada are implementing robust migration policies to attract skilled talent, addressing their ageing populations and labour deficits.

<sup>75</sup> Shoba Suri. "Improving India's Human Capital by Enhancing Investment in the Early Years of Children's Development." ORF Expert Speak, June 26, 2021.

<sup>76</sup> PwC. "One in four workers looking for new jobs as cost of living concerns bite: PwC Global Workforce Hopes & Fears Survey." Press Release, June 20, 2023.

<sup>77</sup> Nilanjan Ghosh. "The value of human capital." ORF Expert Speak, July 10, 2024.

<sup>78</sup> World Economic Forum. "Section 2: Human Capital" in Global Competitiveness Report Special Edition 2020: How Countries are Performing on the Road to Recovery, December 16, 2020.

<sup>79</sup> World Economic Forum. "From Classroom to Career: Building a Future-Ready Global Workforce." World Economic Forum, December 2024.



International organisations and multilateral groupings emphasise the need for collaborative global efforts, including bilateral agreements, upskilling programmes, and innovative immigration policies, to bridge talent gaps and foster inclusive growth. These efforts are vital for economic resilience and creating equitable opportunities in a rapidly changing global labour landscape.

Table 4 provides an overview of India's government-to-government (G2G) initiatives to enhance skill development and workforce mobility. These agreements and partnerships with various countries focus on vocational training, mutual recognition of qualifications, and collaborative skill development programmes. By fostering bilateral cooperation, these initiatives aim to equip Indian workers with globally competitive skills and facilitate their integration into international labour markets.

**Table 4: India's G2G Initiatives for skill development**

Country	Initiative	Key details	Impact
<b>Australia</b>	MoU for Cooperation in Vocational Education and Training (2020)	Includes the Australia-India Education Skill Council (AISEC), Joint Working Group and Mechanism for Mutual Recognition of Qualifications. Discussions for long-term implementation of goals identified in AISEC.	Strengthened Indo-Australian ties in education and skilling, enhanced qualifications recognition for mobility.
<b>Denmark</b>	MoU for Cooperation in Skill Development, Vocational Education, and Entrepreneurship (2022)	A Joint Letter of Intent (2021) was signed during the Danish PM's visit, discussions are ongoing for the early formation of a Joint Working Group (JWG).	Focus on the mobility of skilled workers and bilateral cooperation in education and entrepreneurship.
<b>France</b>	Renewed Administrative Agreement for Skill Development and Vocational Training (2022)	Focused on skill development in automotive, aerospace, tourism, construction, and more sectors. Negotiations to extend the agreement are ongoing.	Facilitated training and placement of Indian candidates in French vocational institutes and corporate houses.
<b>Germany</b>	Joint Declaration of Intent (JDol) for Vocational Education and Training (2019)	Focus on green skills and technical education under IGVET and SINADE projects. Programmes like QualIndia and IGNITE have strengthened vocational education in industrial clusters.	Enhanced employability through vocational training, particularly in sectors like engineering and electronics.
<b>Japan</b>	MoC for Japan-India Institute for Manufacturing (JIM) and Technical Intern Training Programme (TITP)	Focus on training workers in manufacturing and other sectors. Includes Japanese Language Training Centres and Specified Skilled Worker (SSW) Programme for targeted sectors like construction and healthcare.	Facilitated skill training and placement of Indian workers in Japan, focusing on manufacturing expertise.
<b>Qatar</b>	MoU for Skill Development and Recognition of Qualifications (2016)	Automatic extension of the MoU every three years. Focus on certified Indian workforce in Qatar.	Promoted employment opportunities for Indian workers in Qatar.
<b>United Arab Emirates (UAE)</b>	MoU for Mutual Recognition of Qualifications (2016)	Benchmarked 16 UAE skill qualifications to 13 Indian qualifications in the construction sector.	Enhanced opportunities for Indian workers aspiring to work in the UAE.

Country	Initiative	Key details	Impact
United Kingdom (UK)	UK-India Education Research Initiative (UKIERI) and MoU for Skill Development (2018)	Focused on vocational education, training of trainers, integration of technology in skill delivery and job role mapping in the health sector.	Strengthened India-UK collaboration in skill development and health sector training.
Italy	Migration and Mobility Partnership Agreement (2023)	Focus on the mobility of students, academics, researchers and skilled workers. Visa quotas for skilled workers are to be discussed in the first JWG meeting.	Facilitated mobility for skilled Indian workers to Italy.

Source: Ministry of Skill Development and Entrepreneurship, Government of India<sup>80</sup>

India has taken several steps to enhance human capital through targeted initiatives to improve education, healthcare and skill development. The **Ayushman Bharat Yojana** focuses on providing comprehensive healthcare and ensuring a healthier and more productive workforce. Similarly, the **National Education Policy** aims to transform the education system by integrating vocational training and emphasising skill-based learning. The **Atmanirbhar Bharat Yojana** promotes self-reliance by incentivising innovation and entrepreneurship, while **Samagra Shiksha** seeks to strengthen school education infrastructure and delivery.

Additionally, the **Urban Learning Internship Programme** offers hands-on experience to young professionals, bridging the gap between academic learning and workforce demands. These initiatives aim to address disparities in human capital development by enhancing access to education, training and healthcare, particularly in rural and underserved areas. By ensuring transparency and accountability in their implementation, the government seeks to maximise the effectiveness of these programmes.

The global workforce landscape is evolving, with workers demanding higher wages and greater meaning from their work. This has renewed emphasis on skill-first hiring approaches to address labour shortages. By quantifying the value of skill development initiatives, firms can justify training expenditures relative to workers' productivity and wage growth. Integrating career progression plans with human capital investments can mitigate turnover rates, incentivise productivity and foster a sustainable workforce. Such strategies are essential for optimising talent in highly mobile labour markets.

As technological, demographic and economic transformations accelerate, the need for a globally competitive workforce has never been greater. By aligning education and skill development with labour market demands, nations can bridge talent gaps and foster inclusive growth. For India, the focus must remain on leveraging its demographic dividend through sustained investments in human capital. This approach will enable India to navigate workforce transitions effectively, ensuring sustainable economic growth and resilience in a rapidly changing global environment.

Enriching human capital resources involves increasing the number of skilled workers and ensuring that their productivity aligns with global standards. Achieving this requires a strategic focus on education, skill development, health and overall well-being.

In many countries, functional constraints such as information asymmetries, coordination failures among industry stakeholders, financial pressures and negative externalities hinder the effectiveness of skill-based ecosystems. Governments play a pivotal role as facilitators, guiding these ecosystems to align with anticipated outcomes. By becoming proactive orchestrators, governments can ensure worker protection and economic growth. Critical interventions include building comprehensive digital skill platforms to address information asymmetry, sustaining skilling investments through policy measures like tax exemptions or paid education leaves, and strengthening bilateral agreements to safeguard migrant workers' rights, wages and working conditions.

<sup>80</sup> [Ministry of Skill Development and Entrepreneurship \(India\). Annual Report 2023-24. Accessed February 27, 2025.](#)

**Table 5: Government of India's initiatives for enhancing workforce mobility**

Year of implementation	Existing programmes	Objective	Impact on global workforce mobility
2015	Global Initiative of Academic Networks (GIAN)	Tapping the talent pool of scientists and entrepreneurs internationally to encourage engagement with higher institutions in India.	Partnerships with foreign countries, particularly the EU and China, alongside Indian IITs, NITs, and IISERs, have made Indian students more attractive in global job markets.
2018	Pre-departure Orientation Training (PDOT)	Preparing migrant workers for destination countries' cultural, linguistic and regulatory challenges.	Began with four centres and expanded to 41 across India, offering free 8-hour training modules. Online PDOT was introduced post-COVID-19 for seamless delivery.
2018	Skill India International Centre (SIICs) by NSDC International	Providing assessment and certification as per international standards.	593 candidates trained and placed in UAE, Oman, Qatar and Singapore.
2024	eMigrate	Regulating and streamlining overseas recruitment while ensuring safety.	The upgraded portal provides 24/7 multilingual helplines, educates migrants on illegal recruitment risks, and identifies 2,548 illegal agents to date

Source: Jinu Sudhakaran and Sivankutty V S., "Global Initiative of Academic Networks (GIAN): An Indian Initiative of Academic

Over the past decade, these initiatives have bridged gaps in skill readiness, strengthened safety nets for migrant workers and facilitated smoother transitions into international markets. The introduction of online platforms like eMigrate has further enhanced the transparency of the process, ensuring workers are informed and protected.

The private sector complements these efforts by reskilling employees, fostering entrepreneurship and linking labour markets across borders. Training programmes tailored to industry needs not only benefit companies by addressing skill gaps but also empower workers to secure long-term employment. Additionally, private firms contribute to mobility through environmentally sustainable practices like flexible working models and collaborating with governments to establish fair labour and immigration policies. Focusing on employee growth and development creates positive spillovers for organisations, making workforce mobility a profitable scenario.

India's youthful workforce positions the country favourably in the global talent pool. However, challenges such as skill mismatches, regulatory hurdles and gaps in mobility policies persist. An evaluation of the Indian diaspora reveals strengths in its educated and mobile labour force but also highlights the need for better infrastructure and policy frameworks to maximise potential. Recent labour market analyses underscore an opportunity for India to align its workforce capabilities with global demand, filling sector-specific skill shortages in the healthcare, IT and construction industries.

Achieving this alignment requires addressing both supply-side factors such as education and training, and demand-side factors such as sectoral deficiencies and migration policies. A combined effort by governments and the private sector can ensure that India's labour surplus is effectively leveraged to meet global workforce needs. Strengthening these partnerships will help build a resilient, interconnected economy while reinforcing India's position as a critical contributor to the global workforce.





## 06 Models of workforce mobility

Global workforce mobility extends beyond just the forces of international labour markets facilitating migration patterns across regions. It encompasses the organised movement of human capital across international borders to fill skill and labour shortages in host nations, leading to relative wage share equalisation across borders.<sup>81</sup> The interaction of pureplay labour economics with international relations underpins such mobility which is essential for sustainable global economic growth, especially in an interconnected world where demographic disparities are becoming increasingly apparent.

India, among other countries with younger populations, with a significant increase in its labour force from 396.3 million in 2000 to 567.4 million in 2022 and a relative increase in its workforce, has a ready supply of individuals seeking better employment opportunities.<sup>82</sup> When facilitated strategically, this surplus can meet the demand generated by advanced economies experiencing worker shortages. Advanced economies' structural rigidities and protectionist policies, however, complicate this simple supply-demand match. Thus, countries with younger populations must approach workforce mobility thoughtfully, exploring diversified models that address specific sectoral and national needs while respecting immigration constraints, skill requirements and local cultural factors.

Having discussed the significant demographic opportunity of India's workforce, its abundant labour supply and prospects to capitalise upon it, this chapter delves deeper into exploring the institutional arrangements which will be necessary to navigate the supply and demand dynamics of international labour markets towards an equilibrium, including the criteria for defining the target sectors for such workers in the destination countries and the global workforce mobility frameworks that can facilitate smooth workforce migration, integration and reintegration (if needed) to maximise the economic benefits for both countries as well as the social well-being of the workers.



<sup>81</sup> According to the Heckscher-Ohlin (HO) model of international trade, countries export resources (in this case, labour) they have in abundance and import the resources less abundant to benefit from their comparative advantage. See: [Ronald W. Jones. "Heckscher-Ohlin Trade Theory." The New Palgrave Dictionary of Economics, 2nd edition, 2008. Edited by: Steven N. Durlauf and Lawrence E. Blume. DOI 10.1057/978-1-349-95121-5\\_1116-2](#)

<sup>82</sup> [International Labour Organization. India Employment Report 2024. Geneva: ILO, 2024. Accessed February 27, 2025.](#)

## 6.1. Global hotspots for workforce mobility

At the outset, drawing upon discussions in the previous sections, the criteria for selecting global hotspots for workforce mobility necessitates identifying countries and sectors where job opportunities are concentrated, labour demand is abundant relative to its supply and policy environments are amenable to immigration. In categorical terms, the criteria for global hotspots, therefore, include the following:



### Labour demand in key sectors

Countries like Japan, Germany and Canada exhibit high demand in healthcare, skilled trades and technology sectors, influenced by high dependency ratios and a rapidly ageing population. Identifying these sectors allows India to target mobility programmes which are aligned with the workforce demands across skill levels in these host countries. For instance, as of 2023, almost 75% of US companies outsourced IT services to India. This resulted in significant revenue growth for these companies and made the US more competitive globally.<sup>83</sup> Similarly, in 2023, blue-collar migration from India to the Middle East saw a 50% growth over the previous year, with the UAE's demand for skilled and non-skilled workers in sectors like construction, manufacturing and logistics witnessing a 25% and 15% rise, respectively.<sup>84</sup>



### Regulatory environment

Countries with liberal immigration policies and those confronting the pressures of relatively dependent demography are more likely to facilitate physical workforce mobility. A research conducted by OECD highlights nations like Canada and Germany, which have introduced policies to streamline skilled immigration, as prime hotspots for mobility.<sup>85</sup> Understanding visa requirements, employment restrictions and recognition of foreign qualifications is essential for maximising workforce integration. For example, the strict language proficiency requirements for immigrants in countries like France and Japan and the limited multicultural support infrastructure have acted as significant barriers to the economic integration of foreign workers in these countries.



### Cultural and political receptiveness

Countries with multicultural societies are generally more receptive to foreign workers, promoting inclusivity in a socially cohesive environment. For example, Germany's plan to expand language courses both in India and for workers who are already there shows potential and intent towards attracting more workers from India to address its labour scarcity.<sup>86</sup> On the other hand, nations with strong anti-immigration sentiment may prefer alternative models, such as off-shore enclaves. At this time, easy regulatory policies, open immigration frameworks and support for international workers play a key role in facilitating a smooth transition.



<sup>83</sup> [A-Team Soft Solutions. "Why Is India the Centre of Global IT Services?" A-Team Soft Solutions. 2024. Accessed February 27, 2025.](#)

<sup>84</sup> [Economic Times. "Demand for Skilled Blue-Collar Workers from India Goes Up by 25% in UAE: Report." Economic Times. May 21, 2024.](#)

<sup>85</sup> [Organisation for Economic Co-operation and Development \(OECD\). "Migration Policies, Returns, and Attracting Talent." OECD. 2024. Accessed February 27, 2025.](#)

<sup>86</sup> [Business Standard. "Forget Canada. UK: Skilled Indian Workers Are in Demand in Germany." Business Standard. October 18, 2024.](#)

## 6.2. Workforce mobility frameworks and approaches

Identification of global hotspots is, therefore, crucial for formulating an effective workforce mobility strategy for India and other countries with younger populations. Such strategies can take the form of bilateral agreements which often create specific and mutually beneficial terms tailored to the needs of the partnering countries, or multilateral frameworks, which may involve multiple countries within a region. Each approach offers unique advantages and necessitates specific arrangements among partner countries. While bilateral agreements provide flexibility, focus on particular sectors and allow for streamlined processes, such as faster recognition of qualifications and targeted visa types, which ease workers' transition into the host country's workforce, multilateral models, though more complex to negotiate, offer scalability and can cover broader regions, allowing Indian workers access to several countries simultaneously. For instance, India's agreements with Germany address specific skill requirements in healthcare and technology. In contrast, the Global Compact for Migration,<sup>87</sup> a UN initiative, promotes safe, orderly and regular migration pathways, which could provide a framework for regional agreements where labour can be integrated into Europe or other collaborative regions.

Beyond the specifics of immigration agreements, successful workforce mobility depends on the frameworks underpinning these institutional arrangements that can ensure ease of migration and the assimilation and adaptability of workers in the host nation. Economic and sociological theories have extensively provided insights into this process. For example, Gordon's Theory of Assimilation<sup>88</sup> highlights the gradual integration of immigrants through stages beginning with economic integration, followed by social and cultural assimilation.<sup>89</sup> When foreign workers are both economically and socially accepted into host nations for on-shore jobs, they become more productive contributors to society.

Economic models of assimilation also point to the importance of wage convergence, where foreign workers' wages eventually align with those of native workers in similar roles, indicating full integration. For workers, achieving wage parity and career progression in host nations enhances their economic contribution while raising the overall productivity of the workforce.

India's strategy in workforce mobility must consider these assimilation dynamics, focusing on supporting its workers through culturally adaptive training, legal assistance for navigating employment rights and language programmes to facilitate communication and workplace harmony in host nations.

However, assimilation and integration of foreign workers often confront challenges of their own, highlighting the potential for other diverse institutional arrangements such as off-shore enclaves or the guest workers model, that can facilitate the Indian workforce emerging as a global public good.

### 6.2.1. Model 1: On-shore jobs

The 'on-shore jobs' model envisions that Indian workers can directly be assimilated into host countries' labour markets, contributing to their economies as resident employees. This model is one of the most straightforward workforce mobility arrangements, particularly suited to economies confronting demographic challenges and actively seeking to mitigate associated risks by facilitating workers' immigration into their economies. The on-shore model aligns with several labour mobility theories, notably the Harris-Todaro model, which posits that the expectation of higher wages and employment opportunities primarily drives rural-to-urban migration.<sup>90</sup> When applied to international migration, this model suggests that Indian workers are likely to migrate to countries offering higher salaries and better living standards, provided these countries have adequate job openings in specific sectors. The wage differential incentivises mobility, benefiting workers and the host country.

Additionally, the dual labour market theory<sup>91</sup> separates the labour market into primary and secondary sectors to provide further insight. Primary sectors in advanced economies – characterised by well-paying, stable jobs with career growth opportunities – are increasingly difficult to fill due to shrinking native workforces. Indian workers can fulfil this demand, especially in healthcare, IT and engineering, allowing these sectors to remain competitive globally. This model is, therefore, particularly suitable for several high-demand sectors where workforce deficits are relatively pronounced – India's robust education system and growing emphasis on upskilling position it as a global talent hub. For instance, the National Skill Development Mission in India aims to skill over 400 million individuals by 2025, making Indian workers particularly suitable for global markets.

<sup>87</sup> [International Organization for Migration \(IOM\). Global compact for safe, orderly and regular migration, Geneva: IOM, 2024. Accessed February 27, 2025.](#)

<sup>88</sup> Gordon's Theory of Assimilation posits that immigrant groups undergo a multi-stage process of assimilation into the host society, progressing through stages such as acculturation, structural integration, intermarriage, identification and civic assimilation, but not necessarily in a linear or complete manner.

<sup>89</sup> [Milton M. Gordon. "Assimilation in America: Theory and Reality." \*Daedalus\*. Vol. 90, No. 2. Ethnic Groups in American Life \(Spring, 1961\), pp. 263-285 \(23 pages\). 1961.](#)

<sup>90</sup> [John R. Harris and Michael P. Todaro \(1970\). "Migration, unemployment and development: A two-sector analysis." \*The American Economic Review\*. 60\(1\), 126-142. 1970.](#)

<sup>91</sup> [A. Klimczuk and M. Klimczuk-Kochańska. "Dual Labor Market." \[in:\] N. Naples, A. Wong, M. Wickramasinghe and R.C. Hoogland \(eds.\), \*The Wiley-Blackwell Encyclopedia of Gender and Sexuality Studies\*. Wiley-Blackwell, Hoboken, New Jersey 2016, pp. 1–3.](#)



**Table 6: Opportunities of on-shore jobs for Indian workers in target sectors**

Target sectors	Host economies	Opportunity areas
Health care	Germany, Canada, Japan	Address shortages in healthcare workers through skilled professionals and enhanced nursing education.
Information technology	Europe, North America	Meet surging demand for cybersecurity experts, data analysts and software developers.

Source: <https://www.internationalhealthpolicies.org/featured-article/is-the-recruitment-of-foreign-trained-health-professionals-the-solution-to-germanys-health-care-crisis/>; <https://jphe.amegroups.org/article/view/9401/html>; [https://www.oecd.org/en/publications/building-a-skilled-cyber-security-workforce-in-europe\\_3673cd60-en.html](https://www.oecd.org/en/publications/building-a-skilled-cyber-security-workforce-in-europe_3673cd60-en.html)

Some of India's prevailing bilateral agreements with several countries which facilitate workforce mobility in an on-shore model include the India-Germany Migration and Mobility Partnership Agreement (2022),<sup>92</sup> which seeks to allow qualified Indian workers to migrate to Germany, particularly in healthcare and technical fields, with Germany benefiting from an influx of skilled professionals, while Indian workers enjoy stable job opportunities, competitive wages and social benefits; Japan's 'Specified skilled worker' visa<sup>93</sup> to address the severe labour shortage in Japan's eldercare and construction sectors, which facilitates the entry of Indian workers trained in these fields, offering pathways for employment without full residency but with potential for long-term engagement; and the India-Australia Migration and Mobility Partnership Pact (2023) which has established a fresh path for Indian graduates and early career professionals to reside and work in Australia across specific sectors confronted with worker deficits.<sup>94</sup> These are models that other countries with younger populations should attempt to replicate.

**Table 7: Advantages of direct on-shore integration of workers into host economies**

Aspect	Key benefits
Sustainability and stability	On-shore jobs come with longer-term employment and residency rights, enabling investment in skill-building and ensuring career growth and mobility.
Economic multiplier effect	Workers contribute to local economies not just through labour but also as consumers, stimulating growth, particularly in under-populated areas.
Social benefits and integration	Workers enrich cultural diversity, contribute to civic life, and promote tolerance, innovation, and adaptability within host communities.

Source: ORF analysis

While the on-shore model is economically promising, it relies heavily on clear, worker-friendly immigration policies in host countries, where several policy considerations come into play. Many skilled workers face challenges when their qualifications are not recognised abroad. India's strategic agreements should advocate for streamlined certification processes and recognition of credentials in sectors like healthcare and IT, making it easier for skilled professionals to practise abroad. It is also essential to ensure Indian workers can access social benefits such as healthcare, pensions and housing. Partnerships which guarantee equal treatment for foreign workers mitigate potential discrimination issues and ensure a more stable, committed workforce.

But, most importantly, successful workforce integration requires pre-departure training and skill alignment to meet host-country standards. India could implement or re-envision its targeted training programmes tailored to the requirements of specific countries, easing the transition and ensuring productivity from day one.

Workers may also face cultural or language barriers, affecting productivity and social integration. Host nations and Indian agencies can collaborate on cultural and language training to ease this transition. Bilateral agreements can also be crucial in addressing credential recognition issues and ensuring social protection for Indian workers. Streamlined certification processes, negotiated through these agreements, can help workers gain quicker access to their professions abroad.

<sup>92</sup> Ministry of External Affairs, Government of India, [Agreement between the Government of the Republic of India and the Government of the Federal Republic of Germany on a Comprehensive Migration and Mobility Partnership](#), Accessed February 27, 2025.

<sup>93</sup> National Skill Development Corporation (NSDC), ["Specified Skilled Worker."](#) Accessed February 27, 2025.

<sup>94</sup> Umair UI Haque, ["India-Australia Migration & Mobility Pact: Latest Developments and Close Ties."](#) India Briefing, June 2, 2023.

Additionally, these agreements' provisions for healthcare, pensions and other social benefits can ensure that Indian workers enjoy equitable treatment and stable livelihoods in host countries. Since immigration is a sensitive issue in many countries, public opinion can influence policy. Therefore, supplier country's approach should involve diplomatic engagement, emphasising the economic contributions and social benefits of Indian workers to local communities. Additionally, reliance on a foreign workforce may expose host economies to vulnerabilities, especially if immigration policies shift. Through bilateral or multilateral arrangements, diversified workforce agreements can reduce dependence on a single source and encourage stable mobility. Surrounded by many opportunities, the operationalisation of the 'on-shore jobs' model also necessitates that all supplier countries like India strike a delicate balance between the various frameworks for workforce mobility.

### 6.2.2. Model 2: Off-shore enclaves

The 'Off-shore enclaves' model represents a relatively novel approach to workforce mobility designed for countries facing demographic challenges but with strong reservations about permanent immigration or cultural integration of foreign workers. In this model, specialised working communities or enclaves are established within the host country, but they operate semi-autonomously, often with restricted integration into the broader host society. These enclaves allow workers to contribute to host economies while addressing potential security, cultural or political concerns around immigration. The off-shore enclaves model requires rigorous planning, cooperation and carefully structured agreements. Still, it has the potential to serve as a flexible and scalable workforce mobility solution in regions with unique political or cultural constraints.

This model variant draws from the theories of economic geography and industrial clustering,<sup>95</sup> where clusters or concentrated working environments enhance productivity by centralising talent, resources and infrastructure. Instead of integrating directly into the wider society, Indian workers can perform specific roles in designated enclaves, focusing on sectors experiencing labour shortages. Economic clustering of industries ensures that efficiencies arise from workers operating close to each other within sector-specific ecosystems. The 'off-shore enclaves' model also builds on the concept of institutional enclaves, often seen in free-trade zones, export processing zones, or tech hubs, where policies and regulations differ from those governing the surrounding society. Off-shore enclaves create environments where both host and sending nations can address specific labour needs without conflicting with broader immigration policies, creating a targeted solution that aligns with the host's strategic interests. Specific industries, particularly those with strict operational protocols and high levels of security, align well with the off-shore enclave model.

**Table 8: Opportunities of off-shore enclaves for Indian workers in target sectors**

Target sectors	Host economies	Opportunity areas
<b>Manufacturing</b>	Advanced economies like Germany, Japan, and the US	Cost-effective workforce deployment, retention of domestic production capabilities
<b>Technology</b>	IT-driven nations like Ireland, Singapore and South Korea	Localised project execution, compliance with data security needs
<b>Construction</b>	Gulf nations and infrastructure-focused economies	Execution of high-value infrastructure projects with targeted Indian expertise
<b>Logistics and shipping</b>	Port-focused nations like the UAE and Singapore	Optimisation of port operations and logistics infrastructure

Source: [https://www.acm.org/binaries/content/assets/public-policy/usacm/intellectual-property/reports-and-white-papers/full\\_final1.pdf](https://www.acm.org/binaries/content/assets/public-policy/usacm/intellectual-property/reports-and-white-papers/full_final1.pdf); <https://www.eiu.com/n/promising-outlook-for-gcc-construction-sector/>; <https://www.eiu.com/n/promising-outlook-for-gcc-construction-sector/>.

Though off-shore enclaves are relatively new in workforce mobility, few precedents illustrate its potential. The United Arab Emirates has numerous free trade zones (FTZs), where foreign workers are employed under specific conditions and do not integrate fully into the local population. Fairly non-identical to each other, this setup demonstrates the operational flexibility that off-shore enclaves could offer, with dedicated infrastructure, housing and support services for foreign workers.<sup>96</sup> Ireland has a well-developed IT hub where foreign workers collaborate on project-based assignments. Although these professionals integrate more broadly than envisioned in the off-shore enclave model, clustering IT skills and resources demonstrates how enclaves can streamline productivity while preserving localised expertise. South Korea established 'smart' factory zones for skilled foreign labour in its industrial sectors, demonstrating how enclaves focused on high-demand skill sets can serve national goals without disrupting social harmony.<sup>97</sup> The off-shore enclave model offers unique benefits for both host countries and Indian workers.

<sup>95</sup> Gashawbeza W. Bekele and Randall Jackson, "Theoretical Perspectives on Industry Clusters," *Regional Research Institute Working Papers*, 92, West Virginia University Research Repository, 2006.

<sup>96</sup> UAE Embassy, "Free Zones in the UAE," Embassy of the United Arab Emirates, Accessed February 27, 2025.

<sup>97</sup> U.S. International Trade Administration, "Manufacturing Technology - Smart Factory," South Korea - Country Commercial Guide, December 2023.

**Table 9: Advantages of direct off-shore enclaves for workers and economies**

Aspect	Key benefits
<b>Control and flexibility</b>	Enables host countries to address workforce shortages without full-scale immigration, tailored solutions by sector and location
<b>Specialised communities</b>	Efficiency gains through clustering of skilled workers, reduced training and adaptation costs for employers
<b>Support and infrastructure</b>	Streamlined language, skills training, healthcare and housing, culturally familiar environments for Indian workers
<b>Economic benefits for supplier countries</b>	Increased remittances, opportunities for workforce development showcasing Indian expertise globally
<b>Cost-efficiency for employers</b>	Reduced labour turnover and recruitment costs, operational efficiencies in housing and transportation

Implementing off-shore enclaves requires close coordination between Indian authorities and host governments, as well as specific policy adaptations to ensure the sustainability and acceptance of these enclaves. The success of off-shore enclaves hinges on clear bilateral agreements outlining worker rights, legal protections and operational guidelines. These agreements should specify worker residency, labour conditions and repatriation rights. Specialised enclaves will also need streamlined licensing processes to ensure Indian workers' qualifications are recognised for their roles. Supplier countries and the host nation must collaborate to establish qualification equivalencies and licensing standards, particularly in regulated fields like healthcare.

Enclave infrastructure must include support services such as healthcare, housing, language programmes and legal assistance to promote a stable and productive working environment. India could play an active role in providing these services, supported by a liaison office within the host country to address worker needs. Host nations can incentivise this participation by allowing flexible financial arrangements, including remittance facilitation and possible tax exemptions. Workers in these enclaves would benefit from remittance mechanisms that support their families back home, stimulating economic gains for both countries.

The limited social interaction with the broader host society may affect workers in enclaves, increasing the scope for social isolation. To mitigate this, enclaves could organise cross-cultural exchanges and localised social programmes to build connections while respecting the host country's cultural boundaries. In some countries, enclaves could face public opposition due to concerns about isolationist practices. Public awareness campaigns emphasising the benefits of enclaves such as addressing critical labour shortages and supporting national growth could help improve perceptions and ease local concerns.

Also, over-reliance on enclaves may challenge workforce integration and adaptability in the host economy, especially for industries requiring evolving skill sets. While the off-shore enclave model presents a compelling solution for specific workforce needs in socio-politically sensitive contexts, critical considerations regarding clear policies and targeted sectoral approaches have limited its adoption and scalability.

### **6.2.3. Model 3: Guest worker programmes**

The 'Guest worker programmes' model offers the most flexible and temporary arrangement where Indian workers can work in the host country for a specific period before returning home. Unlike permanent or semi-autonomous enclave-based migration, guest worker programmes are typically geared toward filling short-to-medium-term labour shortages, particularly in seasonal, project-based or demand-driven sectors. The model has been successfully implemented worldwide, balancing the host country's immediate economic needs with a temporary integration approach that aligns with the host society's preferences. Guest worker programmes represent a time-bound solution that minimises permanent settlement or cultural integration concerns.

The guest worker model aligns with several economic theories, particularly the labour market segmentation theory,<sup>98</sup> which explains how labour markets are often divided into primary and secondary segments. The primary segment consists of stable, well-paid jobs requiring high skill levels, often filled by native workers or long-term immigrants. In contrast, the secondary segment is characterised by lower wages, minimal benefits and seasonal or temporary work, which native workers may find less attractive. Guest worker programmes enable workers to fill these secondary sector jobs, helping host economies maintain productivity without a permanent influx of foreign workers.

<sup>98</sup> [International Labour Organization, Labour market segmentation. Accessed on February 27, 2025.](#)



Additionally, the ‘human capital’ theory<sup>99</sup> suggests that the temporary nature of guest worker programmes allows workers to gain skills and experience abroad that can be reinvested in their home country upon their return. This model provides remittance inflows for supplier countries and helps boost domestic human capital when skilled workers bring back newly acquired knowledge and experience. Guest worker programmes are most effective in sectors that have seasonal, cyclical or demand-driven labour needs.

**Table 10: Opportunities of guest worker programmes for Indian workers in target sectors**

Target sectors	Host economies	Opportunity areas
Agriculture	Canada, US, Australia	Seasonal roles in planting, harvesting and packing; knowledge transfer of advanced farming techniques to India
Tourism and hospitality	Europe, Middle East	Supporting peak demand in hospitality, food service, and entertainment industries
Construction and engineering	Germany, US	Short-term employment on infrastructure and engineering projects; skill enhancement for workers in advanced systems

Source: [https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/01/labour-and-skills-shortages-in-the-agro-food-sector\\_c9915f4e/ed758aab-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/01/labour-and-skills-shortages-in-the-agro-food-sector_c9915f4e/ed758aab-en.pdf); [https://www.hotrec.eu/media/static/files/import/wp\\_post\\_48505/Labour-shortages-in-the-hospitality-sector-.pdf](https://www.hotrec.eu/media/static/files/import/wp_post_48505/Labour-shortages-in-the-hospitality-sector-.pdf); <https://www.ifo.de/en/press-release/2021-10-06/shortage-skilled-workers-german-construction-sites-worsens>

Guest worker programmes are not new and have been implemented across various countries providing India a model to develop potential partnerships. Canada’s Seasonal Agricultural Worker Programme (SAWP) allows foreign workers from countries like Mexico and Jamaica to work in Canada’s agriculture sector during peak seasons. If extended to India, this model could help Indian agricultural workers gain experience in advanced farming techniques, contributing to skill development and knowledge transfer.<sup>100</sup> Similarly, Germany has developed temporary work permit systems for skilled labour in sectors like construction and engineering. Indian workers are employed for specific projects, contributing their expertise while benefiting from short-term residency.

Expanding such arrangements to include healthcare or renewable energy sectors could address Germany’s labour shortages and meet India’s economic objectives.<sup>101</sup> The US also has guest worker programmes under the H-2A and H-2B visa categories, which allow foreign workers to fill seasonal agricultural and non-agricultural jobs. Workers could leverage these programmes for employment in the hospitality, construction and agriculture sectors, particularly in regions facing acute labour shortages.<sup>102</sup>

Guest worker programmes are particularly well-suited to address the cyclical and seasonal nature of labour demand in specific sectors by allowing host economies to scale their workforce during peak demand periods without committing to permanent immigration as these programmes ensure flexibility and cost-efficiency. For workers, such arrangements offer consistent short-term employment opportunities abroad, providing an additional income stream and exposure to advanced techniques and practices. These programmes can contribute to economic sustainability for workers by reducing underemployment in rural and semi-skilled segments, enhancing skill sets through knowledge transfer, and enabling remittances that support their families and local economies back home.

<sup>99</sup> Human Capital theory is an economic framework that views individuals’ skills, knowledge, experience and education as valuable assets that contribute to their productivity and economic success.

<sup>100</sup> Center for Global Development. (n.d.). Seasonal Agricultural Worker Programme (SAWP). Global Skill Partnerships. <https://gsp.cgdev.org/legalpathway/seasonal-agricultural-worker-program-sawp/>

<sup>101</sup> Berlin.de (n.d.). “Residence permit for qualified skilled workers with an academic education”. Berlin.de. <https://service.berlin.de/dienstleistung/329328/en/>

<sup>102</sup> U.S. Citizenship and Immigration Services. (n.d.). DHS announces countries eligible for H-2A and H-2B visa programs. August 2023. <https://www.uscis.gov/newsroom/alerts/dhs-announces-countries-eligible-for-h-2a-and-h-2b-visa-programs-1>

**Table 11: Advantages of guest worker programmes for workers and economies**

Aspect	Key benefits
<b>Addressing labour shortages</b>	Mitigates short-term labour gaps in sectors like agriculture, tourism and construction; provides cost-effective workforce solutions without long-term integration challenges
<b>Skills transfer and capacity building</b>	Enhances the skill sets and employability of Indian workers through international experience; supports India's human capital development and competitiveness in domestic job markets
<b>Economic stability and worker protection</b>	It offers a politically viable solution for host countries to fill critical jobs; it provides structured contracts, legal protections, and improved working conditions for workers

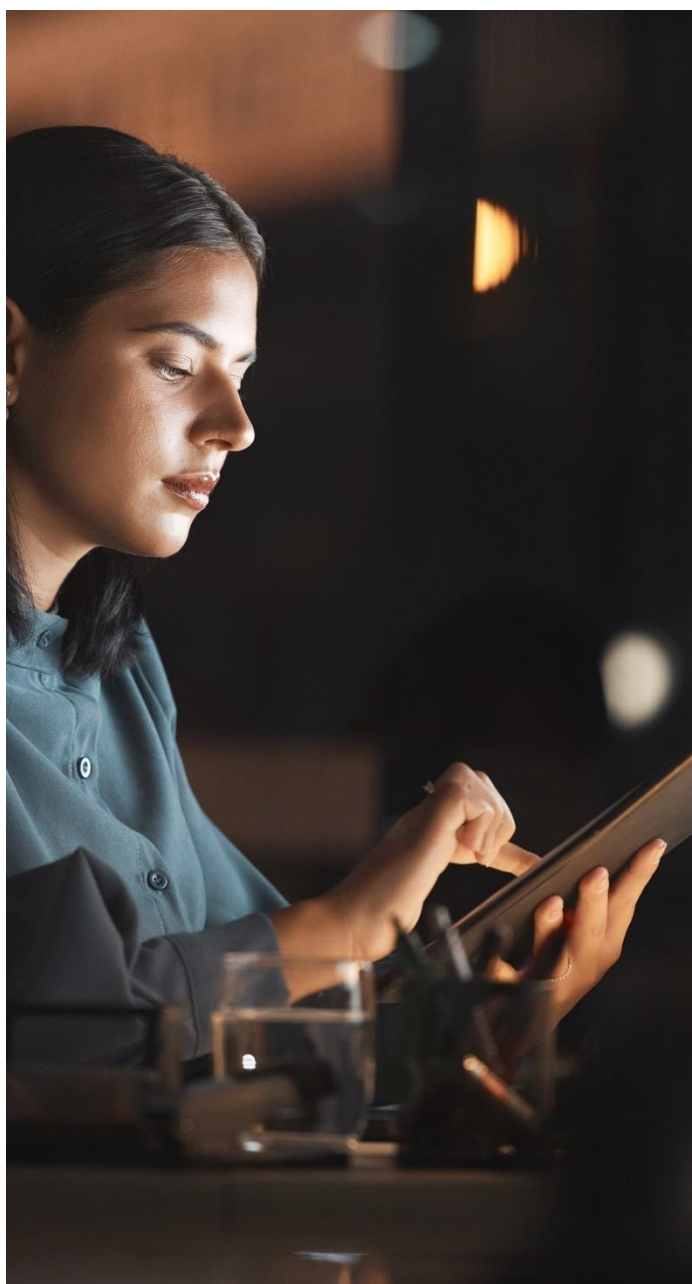
Source: ORF analysis

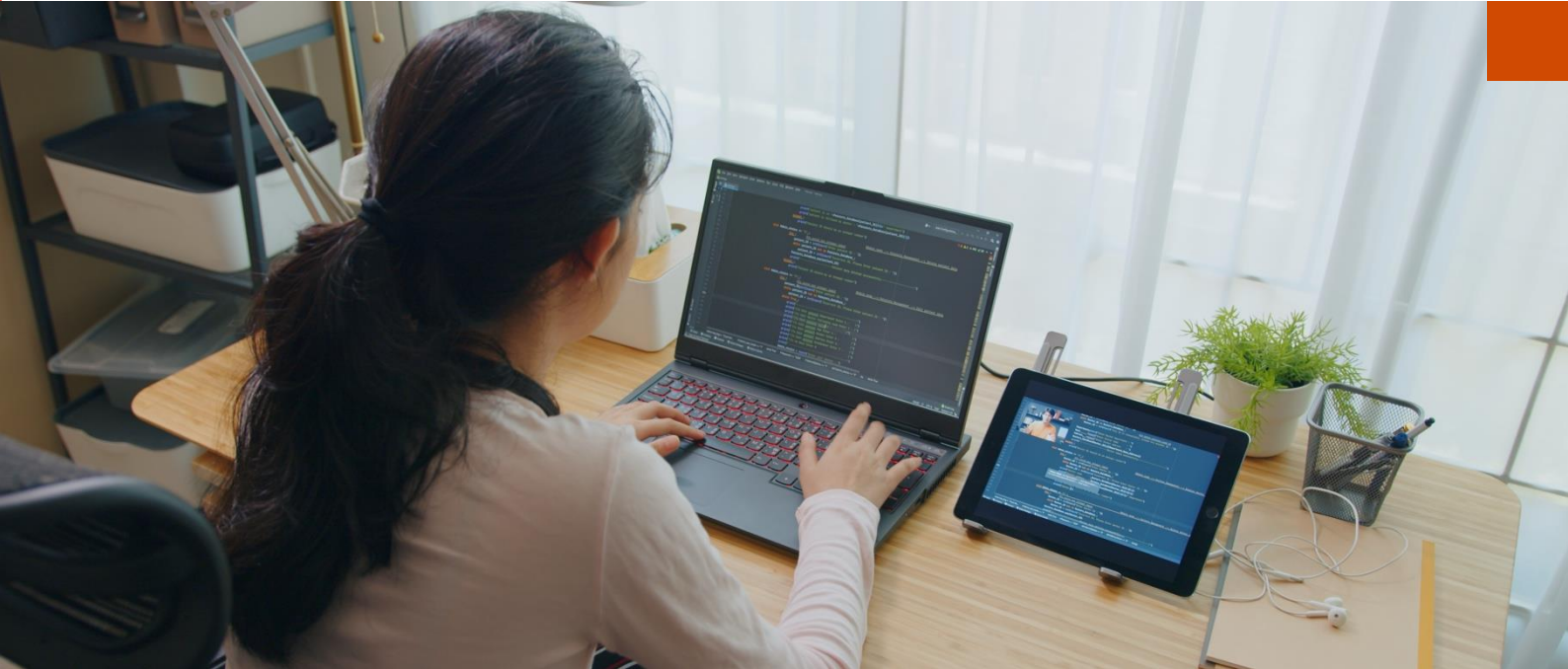
A successful guest worker programme hinges on transparent and fair policy frameworks protecting workers' rights and host-country interests. Bilateral agreements between supplier and host nations should clarify worker rights, wages, benefits and health insurance provisions. These agreements should ensure fair treatment, prevent exploitation and facilitate repatriation processes when contracts conclude. Countries could utilise their pre-departure training for workers to maximise productivity and minimise adjustment challenges for these short-term roles. This orientation should include skill alignment, language training and cultural sensitivity sessions to prepare the workers to meet host-country's expectations over a shorter time span. Ensuring workers have access to adequate health and safety protections is essential especially in sectors like construction and agriculture. Regulatory oversight in host countries and advocacy by country missions abroad can help uphold safety standards and reduce workplace risks – a critical aspect often amiss in limited contracts.

Due to their temporary status, guest workers remain vulnerable to exploitation. Strong governance and reporting mechanisms along with bilateral protections can safeguard Indian workers' rights, ensuring that they receive fair wages and humane working conditions. Primarily driven by demand, employment opportunities for guest workers can vary based on economic conditions and programme instability can leave workers vulnerable to abrupt changes. Bilateral agreements should include contingency plans which provide support in case of unexpected terminations and repatriation assistance if necessary.

Despite the challenges for each arrangement, they present significant opportunities for capitalising upon the Indian workforce's economic potential. However, certain operational practices surrounding these arrangements need to be worked upon by implementing appropriate policy and regulatory frameworks. Moreover, it is mostly a cyclical journey that workers undergo as they go abroad, assimilate in the host countries, gain valuable skills, adapt to their cultural nuances, send remittances or eventually return to their country. Each stage in this cycle has its complexities.

The next chapter summarises the various stages of workforce mobility from a lifecycle approach. Understanding this lifecycle highlights the enduring impact of workforce mobility on both the home and the host countries. It underpins the need for constant support and policy alignment to sustain this beneficial exchange.





## 07 Lifecycle analysis of workforce movement

### 7.1 Mapping opportunities

Global labour markets are experiencing a supply deficit and India has the potential to alleviate this crisis. The capacity of the country to fulfil global demand is underpinned by a steady pipeline of highly skilled professionals in areas such as software engineers, healthcare specialists, advanced manufacturing and infrastructure development experts. Mature economies, such as Germany, Japan and Canada, seek talent to address their demographic imbalances, thereby presenting prime pathways for Indian human capital deployment in global markets. Bilateral labour agreements, regional frameworks and multilateral mobility pacts have begun to harmonise regulatory standards and streamline processes, however, persistent barriers remain. Therefore, there is a need to reconcile cross-border qualification equivalences, navigate evolving protectionist stances and craft policies that ensure workers' rights and well-being abroad.

According to a survey conducted by the Global Labor Market Conference,<sup>103</sup> most workers consider technological change to be the greatest disruptor of labour markets. In the dynamic global landscape, where technology is infused in every task, workers have to acquire skills that cater to technology-heavy jobs. Thus, it is evident that the migration of workers from countries like India must involve skilled-labour. However, skilled labour usually has the bandwidth to access jobs across boundaries. Given the rate of technological change, they are also in greater demand. To enhance the rate of workforce migration from countries including India, the low- to medium-skilled workers need to be prepared for international jobs. Before delving into the policy requirements to facilitate such movement, we look at labour market data to identify which sectors actually have the greatest demand.

Job vacancy rate shows the proportion of new opening or vacancies as a proportion of all possible jobs in a sector. Higher job vacancy rate implies greater demand or shorter supply in the sector. The greatest job vacancy rate, was recorded in administrative and support service activities. Construction, information and communication, professional, scientific and technical activities and accommodation and food service activities followed in order. Thus, it is evident that demand for workers is linear across skill levels as there is a greater demand for highly skilled workforce.

According to a report,<sup>104</sup> the greatest number of vacancies in the US are in the professional and business services sectors, i.e. the highly educated workers at the top percentiles of skill level. Private education and health services follows with other sectors like hospitality, trade and transportation portraying similar demand. Similarly in the UK, as of November 2024, human health and social activities have the most vacancies. It is followed by hospitality, retail and trade. Thus, broader trends across developing countries showcase the demand for skilled workers. Moreover, the demand for professionals in finance, healthcare and hospitality is exponential. The next section delves into how governments can design policies to catalyse a country's workforce into a global one through directed focus on key sectors.

<sup>103</sup> [S. Cote, Navigating tomorrow: Mastering skills in a dynamic global labor market, Global Labor Market Conference, November 2024.](#)

<sup>104</sup> [U.S. Bureau of Labor Statistics, Table 1. Job openings levels and rates by industry and region, seasonally adjusted, February 04, 2025.](#)



To maximise the dividends of these transnational labour flows, countries must refine their approach by analysing market requirements through data analytics, bolstering technical and soft skills training, and reinforcing institutional capacities that support ethical recruitment, equitable wage standards, and conducive work environments. It is also essential to support the human dimension by supporting workers and their families through pre-departure orientation, mentorship schemes, and post-assignment reintegration programmes that acknowledge personal growth trajectories and cultural transitions.

## 7.2 Demand generation

Due to a global scarcity in talent as well as a dynamic shift in skill requirements, governments can pursue a multidimensional approach in order to generate global demand for domestic talent. Governments can have high preference towards regional as well as bilateral labour schemes which promote global labour mobility along with establishing associations with developed which have a demographic and skills shortfall which can be overcome with a secure, preferred migration corridor. Such arrangements can facilitate work permit formalities, ease documentation as well as facilitate smoother identification overseas.

One of the largest challenges which workers face is the absence of standard training and qualifications. India aims to improve this with the New Education Policy. However, government co-operation with global bodies which accredit qualifications, as well as investments in culture-based professional development and language training will be necessary to achieve standardisation.



By focusing on sectors with high vacancy rates like administrative support, construction, ICT, healthcare and hospitality, Indian policymakers can channel talent into disciplines most sought after internationally. This means working closely with industry stakeholders, both at home and abroad, to forecast demand, identify skill gaps, and fine-tune curriculum, thus creating steady pipelines of well-trained professionals ready to meet global market needs.

The role of technology, more specifically that of AI, will have to be addressed in a labour welfare policy. Some early steps can be in terms of opening specialised training institutes and skill development centres in high-priority industries. Low-skilled as well as medium-skilled labour can be upskilled with short-duration certificates, digital literacy and sectoral course training in line with global sectoral demands. These can greatly boost employability abroad.

The government can also launch global awareness campaigns by participating in international job fairs, collaborating with overseas chambers of commerce and leveraging diplomatic missions to showcase the quality, adaptability and cultural fluency of Indian workers. Emphasising India's track record in ICT, healthcare and professional services can position its workforce as a premium choice, thus raising overall global demand. By following a mix of these strategies, governments in supplier countries can systematically shape their workforce into a globally recognized talent pool, fostering both individual economic opportunities and enhanced national competitiveness in an increasingly interconnected labour market.

## 7.3 India model – learnings to emulate for other supplier countries

### 7.3.1 Skill upgradation: Bridging the gap to meet global standards

India has emerged as a leading international supplier of skilled workers, leveraging its demographic dividend with systematic skill formation and mobility programmes. Initiatives such as National Skill Development Mission (NSDM) and Skill India, and international skilling collaborations have enhanced training quality, strengthened alignment with labour markets and facilitated migration pathways. India's global capability centres (GCCs) and strategic partnerships with destination countries indicate its increasingly significant role in the international economy. Nevertheless, there are limitations related to unequal geographic coverage, industry-specific training gaps and barriers to returnee professional integration. By addressing such limitations and enhancing its skilling and migration systems, India can establish itself as an important player in exportable workforce and reap significant economic benefits.

India has taken significant steps to address inconsistent training quality and governance bottlenecks in its skill development ecosystem. The National Skill Development Mission (NSDM), launched in 2015, provides a cohesive framework to strengthen institutional mechanisms and enhance training reach and quality while the Skill Strengthening for Industrial Value Enhancement (STRIVE) initiative, introduced in 2017 with World Bank, focuses on improving the efficiency and market relevance of vocational training through modernised infrastructure and industry partnerships.

The Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) programme, also initiated in 2016, aims to resolve governance challenges by building robust district-level training structures and ensuring inclusivity in skill development. Additionally, the National Skill Development Corporation (NSDC), established in 2009, has streamlined private sector participation in skilling, improving quality assurance and fostering innovation. These initiatives collectively try to address the systemic challenges, demonstrating India's commitment to building a globally competitive workforce.

Significant progress has been made over the last decade, ensuring that Indian workers seamlessly integrate into international labour markets, equipping them with globally competitive skills. This means improving technical competencies and addressing cultural, linguistic and adaptability challenges. For example, India's global capability centres (GCCs) have transformed from traditional back-office operations into hubs of strategic innovation, significantly impacting the global professional services sector. Employing nearly 1.9 million professionals, these centres – over 1,700 across India as of 2024 – generate USD 64.6 billion in revenue, with projections to reach USD 105 billion by 2030.<sup>105</sup> They now encompass high-value functions such as research and development, advanced analytics and finance, showcasing India's skilled workforce and mature offshoring ecosystem. This evolution highlights India's role as a leading destination for professional services, driven by its vast talent pool and growing expertise in delivering global business solutions. The training ecosystem in India, while expanding over the years, often faces infrastructure gaps, quality concerns and limited alignment to industrial needs, particularly in the wider context of global mobility.<sup>106</sup> Many of the remaining binding constraints will need to be overcome before India truly becomes a global hub for skilled labour.

India's skilling landscape still has uneven geographic coverage and dated curricula which often has limited relevance given the demands of Industry 4.0. Addressing this requires a targeted approach, including a comprehensive need-mapping exercise to identify skillsets in demand across 'target' countries for workforce export, such as healthcare in Japan, construction in the Gulf Cooperation Council (GCC) nations, information technology in Europe and North America, and advanced manufacturing in Germany.

Rural areas remain underserved, exacerbating the urban-rural divide in skilling outcomes. Furthermore, the lack of well-trained trainers undermines the effectiveness of existing programmes. Recognition of informal skills – a key aspect for large segments of India's workforce – remains minimal, leaving many workers underqualified to participate in international labour markets despite having substantial experience.<sup>107</sup> India's demographic challenge compounds these structural challenges. As the working-age population grows, skilling infrastructure must expand proportionately to meet rising demand.

<sup>105</sup> [National Association of Software and Service Companies \(NASSCOM\), India GCC landscape report: A 5-year journey. NASSCOM India and Zinnov. Accessed on February 27, 2025.](#)

<sup>106</sup> [International Labour Organization, India Employment Report 2024: Youth Employment, Education, and Skills. Accessed February 27, 2025.](#)

<sup>107</sup> [Wheebox, India Skills Report 2024. Accessed February 27, 2025.](#)



To bridge this gap, introducing nationally recognised certifications for informal skills and establishing partnerships with global accrediting bodies could ensure that India's workforce meets international standards. For example, collaborations with organisations such as the International Labour Organization (ILO) or industry-specific certifying authorities could enhance the global employability of Indian workers. Nevertheless, many initiatives across India tend to focus on entry-level skills, neglecting opportunities for advanced or specialised training required by global markets.<sup>108</sup> On the demand side, a recent NITI Aayog paper identifies the reluctance of the Indian middle-class to take up physical work, which adds to the complexity creating a gap in the availability of labour for certain sectors despite existing workforce surpluses.<sup>109</sup>



The ongoing partnerships with, for example, Germany and Japan have led to targeted improvements in health and industrial skills, while language and cultural orientation programmes are also being implemented.<sup>110</sup> These tailor-made efforts will make it easier for workers not only to meet the technical standards of the destination economies but also to integrate them into their new environment. In addition, AI-driven platforms such as Skill India Digital Hub have started addressing infrastructure and access challenges. Offering online courses in emerging technologies such as robotics, data analytics and green energy, these platforms bring world-class training to rural and semi-urban areas.<sup>111</sup>



For India, this approach underlines the importance of encouraging initial migration and the eventual return of skilled workers with the potential to enrich domestic workers. India's own history also offers lessons. In the 1980s, a wave of reverse migration of medical professionals from the Middle East and Western countries promoted the rapid growth of private healthcare across different parts of the country. Equipped with global expertise and financial capital, these professionals established hospitals and diagnostic centres that reformed healthcare delivery in India.<sup>112</sup> This example which is one of the significant contributors for turning India into a health tourism hub shows how the strategic reintegration of skilled professionals can deliver transformative change, a lesson that remains relevant because India wants to tailor its competent ecosystem to global standards.



Another example is the reverse migration among IT professionals and renewable energy experts. Returning IT professionals, equipped with global expertise in AI, blockchain and cybersecurity, could establish cutting-edge technology start-ups or enhance the digital infrastructure of existing enterprises and enable India to become a formidable force in the global tech economy. Similarly, renewable energy experts could spearhead innovative projects in solar and wind energy, contributing to India's ambitious green energy transition and sustainability goals.

<sup>108</sup> [Rajesh Gupta, Rajesh, and Oshin Dharap, "How is India skilling its youth? A comprehensive study," Journal of Vocational Education & Training 76, no. 4 \(2024\): 818-844, July 12, 2022.](#)

<sup>109</sup> [Virmani, Aravind, "Viksit Bharat: Unshackling Job Creators and Empowering Growth Drivers," NITI Working Paper, NITI Aayog, July 19, 2024](#)

<sup>110</sup> [Ministry of Skill Development and Entrepreneurship, "International Collaborations," Government of India, Accessed on February 27, 2025.](#)

<sup>111</sup> [Ministry of Skill Development and Entrepreneurship, "About Skill India Digital Hub," Government of India, Accessed on February 27, 2025.](#)

<sup>112</sup> [Rama V. Baru, "Privatisation and Corporatisation," in Unhealthy Trends: A symposium on the state of our public health system, May 2000.](#)





### 7.3.2 Recruitment and compliance: Navigating complex pathways

The process of navigating global standards and examining the destination countries' labour laws can often be intimidating for migrants. Successful recruitment not only improves a country's reputation as a source of skilled labour and also offers economic and social benefits to employees as well as their families back home. Transparency, fairness and compliance with international labour laws are central to this process. India has steadily improved its recruitment processes by introducing regulatory mechanisms to eliminate malpractice and exploitation.

The eMigrate platform in India launched in 2015 is an example of an important component of such reforms. By keeping a database of accredited recruitment agencies and keeping track of placements of employees, the platform minimises fraud and ensures that employees are focused on legitimate opportunities.<sup>113</sup> Specialised modules within the platform teach employees about their rights and the legal requirements of destination countries.

Pre-departure orientation programmes, developed in collaboration with the National Skill Development Corporation (NSDC), serve as an essential part of the recruitment pipeline. These programmes provide workers with practical knowledge of the laws, workplace expectations and cultural nuances of host countries. For example, Indian caregivers who go to Japan are given language training under the Specified Skilled Worker programme and are informed about Japanese elderly care practices.<sup>114</sup> Such initiatives not only increase the willingness of workers but also reduce the risk of conflicts due to cultural misunderstandings. Overseas Workers Resource Centre (OWRC) and Migrant Resource Centres (MRCs) run by the Ministry of External Affairs play an essential role in supporting workers. These offer document verification, legal assistance and a communication channel for working families.<sup>115</sup>

Maintaining international labour laws is a critical requirement for fair treatment of Indian workers abroad. Bilateral agreements in existence, such as the India-Germany Migration and Mobility Partnership,<sup>116</sup> illustrate best practices to better align Indian workers' rights with the legal framework of host countries. These agreements facilitate streamlined, quicker visa procedures and allow mutual recognition of skills thus facilitating employment. For example, German employers who hire Indian IT professionals benefit from accelerated validation processes, while Indian workers gain access to secure contracts and social protection.

Another key component of compliance is the existence of a redressal system for complaints. Indian missions abroad, in cooperation with local authorities, have set up mechanisms to enable workers to report exploitation or unsafe conditions. Regular audits of recruitment agencies are conducted to ensure accountability, and violations often lead to sanctions or withdrawal of licenses.<sup>117</sup> Such measures are expected to strengthen confidence between workers, employers and governments and strengthen India's position as a reliable source of labour.



India can draw lessons from the experience of the Philippine Overseas Employment Administration (POEA). The POEA provides a robust regulatory framework guaranteeing ethical recruitment practices and protects employees through strict compliance checks. For example, Filipino carers benefit from pre-departure briefings containing comprehensive information on employment contracts, wage structures and legal rights.<sup>118</sup> The Philippines model not only emphasised transparency but also improved its global reputation, leading to preferential treatment in sectors such as care and construction.

<sup>113</sup> Ashwin Kumar, "Uncovering the Skill-Migration Nexus in Sending States: Policy Analysis from India," (2024), Cornell University.

<sup>114</sup> National Skill Development Corporation (NSDC), "Specified Skilled Worker," Accessed February 27, 2025.

<sup>115</sup> Sumit Dahiphale, "A Look at India's Ministry of External Affairs (MEA) Schemes & Programs," IMPRI India, 2024.

<sup>116</sup> Ministry of External Affairs, Government of India, Agreement between the Government of the Republic of India and the Government of the Federal Republic of Germany on a Comprehensive Migration and Mobility Partnership, Accessed February 27, 2025.

<sup>117</sup> K. G. Santhy, A. J. Xavier, Shilpi Rampal, and Avishek Hazra, "Promoting safe overseas labour migration: Lessons from ASK's safe migration project in India," Population Council, 2022.

<sup>118</sup> Neil G. Ruiz, "The rise of the Philippine emigration state: Protecting migrant workers in the Gulf Cooperation Council Countries," *Asianization of migrant workers in the Gulf countries* (2020): 127-149.

## a. Shifting and onboarding: Easing the transition

Moving to a foreign country entails logistical, cultural and emotional challenges. For Indian workers, a well-planned and supportive transition process is crucial to ensure success in their new roles and environments. By addressing both tangible and intangible aspects of migration, India can improve the adaptability, satisfaction and productivity of workers. The logistics of international relocations includes complex coordination. Workers must secure their work visas, undergo health screenings and arrange transport, often while navigating unknown bureaucratic processes. India's eMigrate platform has simplified this journey by providing a centralised hub for documentation and visa applications.<sup>119</sup> Pre-departure health check-ups, prescribed for workers on their way to countries with strict public health regulations, ensure compliance with host country rules and protect the well-being of workers.

Financial planning is another crucial element of the migration process. Many workers leave dependent persons dependent on transfers for their livelihoods. Workshops on financial literacy, carried out in cooperation with banks and NGOs, help employees to understand transfer systems, manage foreign exchange and avoid predatory financial practices.<sup>120</sup> These efforts ensure that employees can support their families and build financial security abroad. Onboarding goes beyond mere logistics and integrates themes such as cultural assimilation and workplace readiness. Cultural orientation programmes prepare workers for social standards, work etiquette and language needs of host countries, thus smoothening the integration process. These sessions not only improve the professional communication within their employment, but also help them navigate daily life.

Germany's extensive integration courses constitute a global benchmark. These programmes combine language education, cultural education and preparation at the workplace, so that workers are well-equipped to contribute to their host communities.<sup>121</sup> For Indian workers in sectors such as IT and healthcare, these courses have proved transformative, improving both productivity and labour satisfaction. As India enhances its cooperation with Germany, including such practices in its on-boarding framework could bring significant benefits.

In addition to Germany, many other destination countries have implemented effective programmes aimed specifically at supporting migrant workers. Singapore's Migrant Workers' Centre (MWC) runs initiatives that include skills training, workplace rights education and cultural orientation to ensure smooth integration into local workplaces. In Canada, the Federal Skilled Worker Programme (FSWP) focuses on attracting skilled professionals, offering credential recognition, language training, and settlement support to help workers adapt effectively to Canadian labour markets. Sweden's Fast-Track Initiative (Snabbspår) targets newly arrived skilled workers in sectors like education, healthcare, and construction, providing accelerated pathways for licensing and workplace integration. Among the source countries, Philippines' Comprehensive Pre-Departure Education Programme (CPDEP) provides language training, cultural familiarisation, and stress management to prepare Overseas Filipino Workers (OFWs) for employment abroad. These examples highlight the potential of comprehensive and worker-focused integration frameworks, which India could adapt to enhance the success of its outbound workforce.

<sup>119</sup> [TK Manoj Kumar and M. C. Luther. "Governance of emigration today," in \*India Migration Report 2020\*, pp. 437-458. Routledge India, 2020.](#)

<sup>120</sup> [Adele Atkinson and Flore-Anne Messy. "Financial education for migrants and their families," \*OECD Working Papers No 38\*, 2015.](#)

<sup>121</sup> [Pia Homrighausen and Salwan Saif. "Course Progress in the General Integration Course," \*BAMF Brief Analysis, Issue 07\*, 2021: 13.](#)

### 7.3.3 Return and reintegration: Unlocking potential back at home

The return of skilled workers is a critical yet often overlooked aspect of the labour mobility cycle. Effective management of reintegration can reinforce the economic and social benefits of migration and transform returning workers into catalysts for national development. Returning workers not only bring back financial savings, but also a wealth of knowledge, networks and international exposure.<sup>122</sup> The Skilled Workers Arrival Database for Employment Support (SWADES), a joint initiative of the Ministry of Skill Development and Entrepreneurship, the Ministry of Civil Aviation and the MEA, aimed at creating a database of migrant workers based on their skills and experience to meet the requirements of Indian and foreign companies. In order to facilitate employment, the SWADES registration data were integrated into the portal Skill India's Aatmanirbhar Skilled Employee-Employer Mapping (SEEM).<sup>123</sup>

In order to further leverage the expertise of repatriates, India has developed sector-specific reintegration frameworks. In the IT sector, returning professionals are encouraged to teach at institutions where they can guide the next generation of engineers and technologists.<sup>124,125</sup> These efforts facilitate translation of globally acquired experiences into domestic capacity building. Historically, one of the most impactful ways in which repatriates contribute is through entrepreneurship. The wave of returning doctors in the 1980s, discussed earlier, played a crucial role in shaping Indian private healthcare, which emerged as the majority care provider in the past decades. Today, programmes like Startup India offer funding, mentoring, and other benefits to entrepreneurs to promote innovation across sectors.<sup>126</sup>

India could also draw inspiration from Israel and China, where returning scientists and entrepreneurs have driven progress in technology and production.<sup>127</sup> Through targeted incentives, these countries have successfully reintegrated repatriated professionals who have created start-ups, developed advanced technologies and strengthened the national innovation ecosystem. By emulating this model, India can also develop a robust innovation hub and attract global investors and participants.

At the same time, reintegration is not without challenges. Workers often find it difficult to adapt to the domestic labour market and the social environment.<sup>128</sup> Financial literacy programmes help repatriates to manage savings and investments, while psychosocial support services address the emotional toll of adjustment. While there are strong non-financial incentives to relocate to India,<sup>129</sup> the country could also consider offering enhanced tax holidays or matching subsidies to repatriates wishing to set up companies to maximise their contributions. With its demographic dividend projected to peak in the coming decades, India stands at a pivotal juncture. Strategic investments in education, skill development and healthcare are imperative to harness this potential, enabling the workforce to meet evolving economic demands. Neglecting these areas could result in missed opportunities for economic growth and development.

<sup>122</sup> S. Rajan and C.S. Akhil, "Reintegration of Return Migrants and State Responses: A Case Study of Kerala," *Productivity* 60(2): 126–135, August 2019.

<sup>123</sup> Asma Khan and H. Arokkiaraj, "Challenges of reverse migration in India: a comparative study of internal and international migrant workers in the post-COVID economy," *Comparative Migration Studies* 9, no. 1 (2021): 49.

<sup>124</sup> Kathryn Lum, "Operationalizing the highly skilled diasporic transnational family: China and India's transnational governance strategies," *Diaspora Studies* 8, no. 1 (2015): 51-65.

<sup>125</sup> Meghna Sabharwal and Roli Varma, "Grass is greener on the other side: Return migration of Indian engineers and scientists in academia," *Bulletin of Science, Technology & Society* 37, no. 1 (2017): 34-44.

<sup>126</sup> Dharish David, Sasidaran Gopalan, and Suma Ramachandran, "The startup environment and funding activity in India," in *Investment in startups and small business financing*, pp. 193-232, 2021.

<sup>127</sup> Anthony Welch and Jie Hao, "Global argonauts: Returnees and diaspora as sources of innovation in China and Israel," in *The Power of Numbers and Networks*, pp. 122-147, Routledge, 2019.

<sup>128</sup> Alkida Ndreka, "Return migration and re-integration of returnees challenges in the origin country," *Research in Social Change* 11, no. 3 (2019): 4-24.

<sup>129</sup> Arup Varma and Rosalie Tung, "Lure of country of origin: An exploratory study of ex-host country nationals in India," *Personnel Review* 49, no. 7 (2020): 1487-1501.





## 08 Recommendations

The evolving dynamics of the global labour market has presented countries with younger population like India with the unprecedented opportunity to leverage its demographic dividend and consolidate its position as a crucial contributor to the international workforce. A well-structured and adaptive strategy is essential to ensure that workforce mobility is not only economically advantageous but also sustainable in the long term. Such a strategy must align with global employment trends, protect the interests of workers, and optimise the reciprocal benefits for both supplier and host economies. The following recommendations, grounded in technical and scenario analyses of the report, provide a framework for advancing workforce mobility, skill enhancement and reintegration mechanisms to maximise developmental outcomes, for India and the world.

### **Multi-tiered approach to skilling**

To optimise the economic benefits of migration, countries must adopt a comprehensive policy framework which integrates economic, social and institutional dimensions. A tiered migration strategy should be developed to address the distinct needs of high-skilled, mid-skilled and low-skilled workers, which also focusses on harmonising skilling ecosystem as per international standards. Such differentiation will facilitate targeted policies that promote skill mobility while ensuring migrant welfare overseas. Leveraging and strengthening existing bilateral and multilateral agreements will be crucial to standardising credentials, streamlining visa pathways, recognition of skills and removing institutional bottlenecks that impede labour market access in destination countries.

Furthermore, countries must transition from a transactional view of migration to a cyclical knowledge-exchange process. Establishing a global talent network will facilitate sustained engagement with the diaspora from the country, fostering mentorship linkages, employment updates, investment collaborations, upskilling opportunities and cross-border innovation partnerships. These mechanisms will not only enhance a country's global labour footprint but also create reverse knowledge flows that contribute to domestic economic progress.

### **Demand-based skilling to enhance supply**

To fully harness the demographic advantage, countries must implement a data-driven and industry-aligned skilling ecosystem which dynamically responds to global workforce demands. A forward-looking labour market intelligence system converged with existing migrant databases maintained by nodal ministries of the country should be institutionalised to assess employment trends and anticipate skill shortages in key geographies. This will enable the development of targeted skilling programmes that prepare workers for high-demand sectors such as healthcare in Japan, AI in Europe and sustainable energy in Australia. Herein, engagements with the destination country employers may be actively undertaken by countries like India to advocate for a country's supply strength, skill anticipation, labour market demand aggregation and ecosystem enablement for labour mobility along with placement opportunities.

Countries like India should also expand structured international mobility programmes that facilitate career development through global exposure while preserving pathways for return migration. These initiatives should be accompanied by comprehensive pre-departure training modules covering language proficiency, cultural orientation, and workplace adaptation strategies.

By equipping workers with these competencies, countries can enhance their integration prospects and long-term professional mobility in foreign labour markets. Furthermore, emphasis may be given to introduce online foreign language courses and cultural immersion programmes under the skilling programmes of the government, Technical and Vocational Education and Training (TVET) institutions and other institutions preparing candidates for migration.

### **Adopting and creating innovative models of mobility**

A diversified and resilient workforce mobility strategy necessitates the adoption of innovative models beyond conventional migration pathways. One such model is the Off-Shore Conclave framework, wherein destination economies establish dedicated workforce enclaves designed to host foreign workers within sector-specific clusters. These zones can be structured with tailored legal protections, regulatory oversight and social infrastructure to enhance worker productivity while addressing host-country concerns regarding large-scale immigration.

Additionally, expanding structured young professionals and guest worker programmes which offer well-defined entry and exit pathways can create a sustainable model for temporary labour mobility. Such programmes should incorporate provisions for skills accreditation, performance-based contract extensions and structured reintegration mechanisms for returning workers. A robust governance must be established to ensure ethical recruitment practices, minimise worker exploitation and maintain transparent oversight of workforce mobility patterns.

### **Greater focus on reintegration through technology**

For international workforce mobility to yield enduring benefits, reintegration strategies must be designed to optimise the knowledge and expertise of returning professionals. Establishing a national returnee workforce initiative and upskilling agenda will facilitate a seamless transition for repatriated workers by offering targeted incentives such as tax reliefs, entrepreneurship grants, and preferential hiring programmes in strategic industries. Reintegration hubs should be developed to provide tailored financial planning services, psychological counselling and career development resources to ensure holistic support for returning workers.

Further, countries like India should invest in an AI-enabled workforce transition platform which systematically maps the competencies of returnees to emerging domestic employment opportunities. This initiative should be complemented by strengthened partnerships with international accreditation bodies to standardise skill certifications, ensuring the continued employability of Indian workers in global markets. A coordinated strategy encompassing both outbound migration facilitation and returnee reintegration will position such countries as a leader in international workforce mobility while fostering inclusive economic growth.

## **Extending social security framework to include skill migration – recommendations for India**



Rapid technological changes, rise of remote work and increased automation has led to a transformational shift in labour employment away from traditional long-term, location-based jobs to task-based work that can be performed remotely. The rise of freelance work and the gig economy has enabled outsourcing of tasks to a flexible, globally distributed workforce without the need of any physical movement of labour. While technological advancements will further enhance demand for skilled labour, the de-linking of skills and services from labour currently underway is expected to lead to increased global migration of skills, without cross border physical movement of labour. This presents significant opportunities for global migration of Indian labour and skills but also poses challenges, particularly with regards to employment stability and access to social security in absence of well-crafted labour regulations pertaining to the same.



Hence, it is essential to design a supportive regulatory framework to facilitate the current dynamics. A key component of this will be expanding the social safety net, currently available for domestic workforce, to include freelancing and platform workers offering their services across geographies to a global clientele. While gig and platform workers have been defined in the Code on Social Security 2020,<sup>130</sup> and the government has set up a committee to suggest a social security framework for such workers, its comprehensive and timely implementation will be crucial in aiding the current labour migration dynamics.

Based on the above recommendations, Table 12 depicts a set of mobility value chain guidelines which may be beneficial for the various stakeholders of workforce mobility.

<sup>130</sup> [Ministry of Labour & Employment, Government of India, "Social Security for Gig and Platform Workers," Press Release, November 25, 2024.](#)

**Table 12: Guidelines for mobility value chain**

Key operational steps		Stakeholders	Medium for engagement	Remarks
<b>Demand identification</b>	<ul style="list-style-type: none"> <li>Destination market scan and demand landscape analysis</li> </ul>	<ul style="list-style-type: none"> <li>Relevant ministries/departments (foreign, education, labour, etc.) in destination countries</li> <li>Indian missions in destination countries</li> <li>Niche/high value recruiters</li> <li>Recruitment platforms</li> <li>Recruitment agencies</li> <li>Employer associations</li> </ul>	<ul style="list-style-type: none"> <li>G2G/G2G partnerships</li> <li>Consultations/summits/webinars</li> <li>Roadshows</li> </ul>	<ul style="list-style-type: none"> <li>The research studies including demand market assessment, skill gap studies may be commissioned by the central governing body/ department in collaboration with research agencies. The proposed working group for international mobility may nominate a nodal agency at central level to design and implement the indicative operational plan. Similarly, State-level nodal agencies may be identified for undertaking state-level operational activities, primarily for supply side aggregation.</li> <li>Tie-ups with respective multi-lateral organisations as per the expertise may be explored (example for developing LMIS)</li> </ul>
<b>Demand aggregation</b>	<ul style="list-style-type: none"> <li>Advocacy efforts with destination country stakeholders</li> <li>Skill gap studies</li> <li>Open vacancies, analysis of popular websites</li> <li>Public LMIS and other secondary sources</li> <li>Bottom-up analysis of key employers and business entities that hire international workforce, especially Indian workers</li> <li>Employers connect forums (online and offline)</li> <li>Bi-lateral mobility agreements/MMPAs</li> </ul>			
<b>Advocacy and outreach</b>	<ul style="list-style-type: none"> <li>National consultations (with states, ministries, etc.)</li> <li>Standardised branding</li> </ul>	<ul style="list-style-type: none"> <li>Media agency</li> <li>State skills missions</li> <li>State education departments</li> </ul>	<ul style="list-style-type: none"> <li>National roundtable/conference/webinars</li> </ul>	
<b>Supply identification</b>	<ul style="list-style-type: none"> <li>Supply landscape analysis for prioritised job roles (skills and education)</li> </ul>	<ul style="list-style-type: none"> <li>Recruitment agencies</li> <li>International certification and assessment providers</li> </ul>	<ul style="list-style-type: none"> <li>Strategic partnerships (MOUs, EOIs)</li> <li>Voluntary engagement</li> <li>Stakeholder engagement forums</li> </ul>	
<b>Supply aggregation and mobilisation</b>	<ul style="list-style-type: none"> <li>Development of a strong supply network – Skill India International Centres (SIICs), feeder institutes of SIICs, education institutes network</li> </ul>	<ul style="list-style-type: none"> <li>Higher education institutions/EdTech/training providers</li> <li>Professional bodies in India</li> <li>Training value add partners – language training and certification partners</li> </ul>		



Key operational steps		Stakeholders	Medium for engagement	Remarks
<b>Supply enablement</b>	<ul style="list-style-type: none"> <li>• Setting up training/assessment centres in India</li> <li>• Skills verification programme</li> <li>• Harmonisation, content, curriculum and pedagogy•</li> <li>• Physical and digital infrastructure setup</li> <li>• Creating dynamic mobilisation strategy to align with local market and cultural norms</li> </ul>	<ul style="list-style-type: none"> <li>• Skill labs and infrastructure/ equipment partnerships</li> <li>• Counselling/ competency assessment agencies</li> <li>• Course/content development agencies for Pre-Departure Orientation Training (PDOT) content and curriculum</li> </ul>		
<b>Migration and post-migration</b>	<ul style="list-style-type: none"> <li>• Visa, passport facilitation</li> <li>• Document validation</li> <li>• Health check-up</li> <li>• Employment contract finalisation</li> <li>• Diaspora connect and Reintegration support</li> </ul>	<ul style="list-style-type: none"> <li>• Recruitment agencies</li> <li>• Destination country government employers</li> <li>• Ministry of External Affairs</li> <li>• Indian missions in destination countries</li> <li>• Indian communities in destination countries</li> </ul>	<ul style="list-style-type: none"> <li>• Inter-ministerial engagement</li> <li>• Cultural events</li> </ul>	





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