

Global Skill Gap Report: Assessing Overseas Opportunities for Skilled Manpower from India



Ernst & Young was engaged by NSDC to conduct a Global Skill Gap study. This publication is based on the report prepared by Ernst & Young.





Several developed countries have a population that is declining in number and increasing in its median age. Faced with labour shortages, governments are responding by encouraging adoption of new technologies, taking measures to raise workforce participation and raising the retirement age. They are also focusing on attracting economic migrants from other countries. This presents India with an opportunity to create a high-quality skilled workforce for the rest of the world and calls for a mapping of opportunities for the Indian workforce. This report highlights 15 countries where skilled workers from India can migrate.

INTRODUCTION

The pace of international migration has accelerated over the years. As per the World Bank, more than 247 million people live in a country other than that of their birth. People migrate for various reasons such as better livelihood and standards of living. Migration brings multiple benefits to both the country of origin and the destination country. Migrants add to a country's productivity, provide remittances to their home country, and enable global transfer of local know-how and technology.

At the same time, labour shortages are being seen in many countries, driven by economic trajectory and demographic factors such as ageing population. Several developed countries now have a population that is not only declining in numbers but also increasing in its median age. Governments are proactively responding to these challenges by encouraging adoption of new technologies, taking measures to raise workforce participation including by women and raising the retirement

age. It is important to note that many of these measures would show an effect only in the long term. In the short term, countries may not be able to rely on these measures alone to bridge the gap in workforce requirements. One solution therefore is to focus on attracting economic migrants from other countries in sectors and occupations experiencing labour shortages.

With a young population (~65 percent below 35 years, share of working age (15-59 years) population set to grow from 62 percent currently to 68 percent by 2030), India has an opportunity that can be leveraged to create a high-quality skilled workforce for the rest of the world. Especially for countries and regions with an ageing or declining national population, such as Europe and Japan. Countries with mature migration systems like the US, Australia, Canada, Singapore also have an ageing population and are therefore open to skilled migrants.

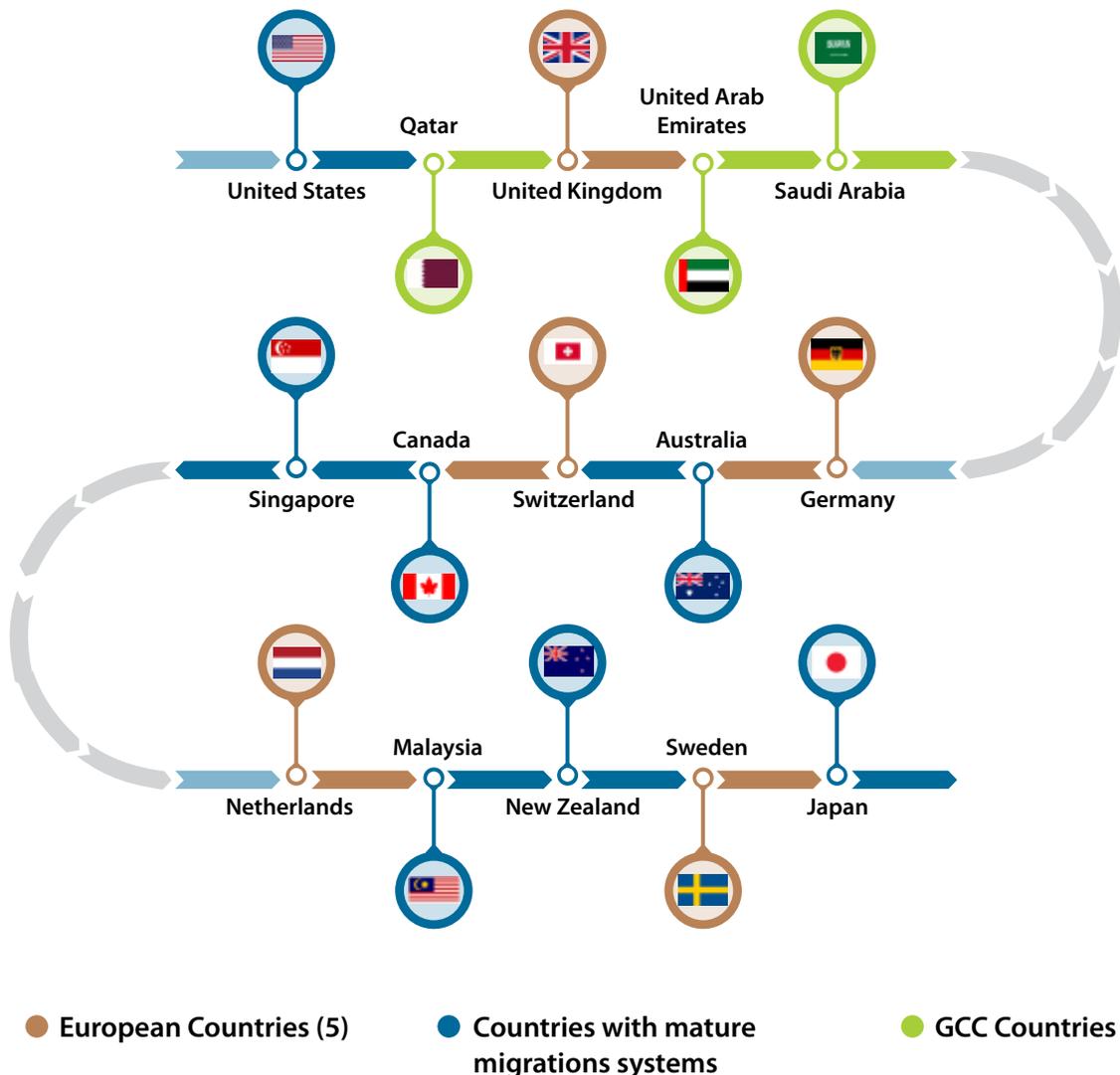
To enable India's working age population to be productively engaged in the global labour market, it is important for them to be trained in market-relevant skills which can drive global economic migration through gainful employment. A systematic approach to migratory outflows from India calls for an analysis of countries that are expected to face labour shortages in the foreseeable future and a concurrent mapping of opportunities that these shortages present for the Indian workforce.

The Global Skill Gap study is a way forward in this direction. This report highlights 15

countries where skilled workers from India can migrate. For each country, a deep-dive analysis has been undertaken to understand the impact of socio-economic and sector-specific factors related to employment and international migration. The report identifies key sectors and occupations in which migrants can be absorbed and recommends solutions and international dialogue to facilitate migration.

The shortlisted countries are categorised into three blocks: (1) European countries, (2) Gulf Cooperation Council (GCC) countries, (3) Countries with mature migration systems.

Figure 1: Fifteen countries shortlisted for deep-dive analysis



APPROACH AND METHODOLOGY

This report uses various secondary studies and reports, literature review, and primary surveys to understand skills gaps across various countries. It also analyses migration patterns in India. Since each country has different skill gaps and varying skill demands, there is a need to align skill development initiatives with labour-market needs. This report focuses on 15 countries, which were identified based on an analysis of Global Migration Attractiveness and Indian Migrant Attractiveness indices, strategic factors and Government to Government (G2G) relations.

Methodology for identification of 15 countries for deep-dive study

In order to construct a model for migration attractiveness of a country, relevant variables were identified and their correlation to migration was studied. A three-pronged approach was followed:

- 1. Creation of a Global Migration Attractiveness Index** to understand factors related to migration from a global lens
- 2. Creation of an India Migration Attractiveness Index** to measure the degree of attractiveness of other countries for Indians
- 3. Government to Government (G2G) relations** between India

and other countries on manpower-related aspects

1. Global Migration Attractiveness Index (GMAI)

This index aims to represent the attractiveness of a country for potential migrants. 16 socio-economic and demographic indicators were identified based on secondary research and literature review of articles, papers, and reports from organizations such as the ILO, OECD, the UN, the World Bank and Oxford Economics. An index was constructed to measure a country's attractiveness from a potential economic migrant's perspective in terms of factors such as employment, wage levels, manpower requirement, and whether its policies are immigrant friendly.

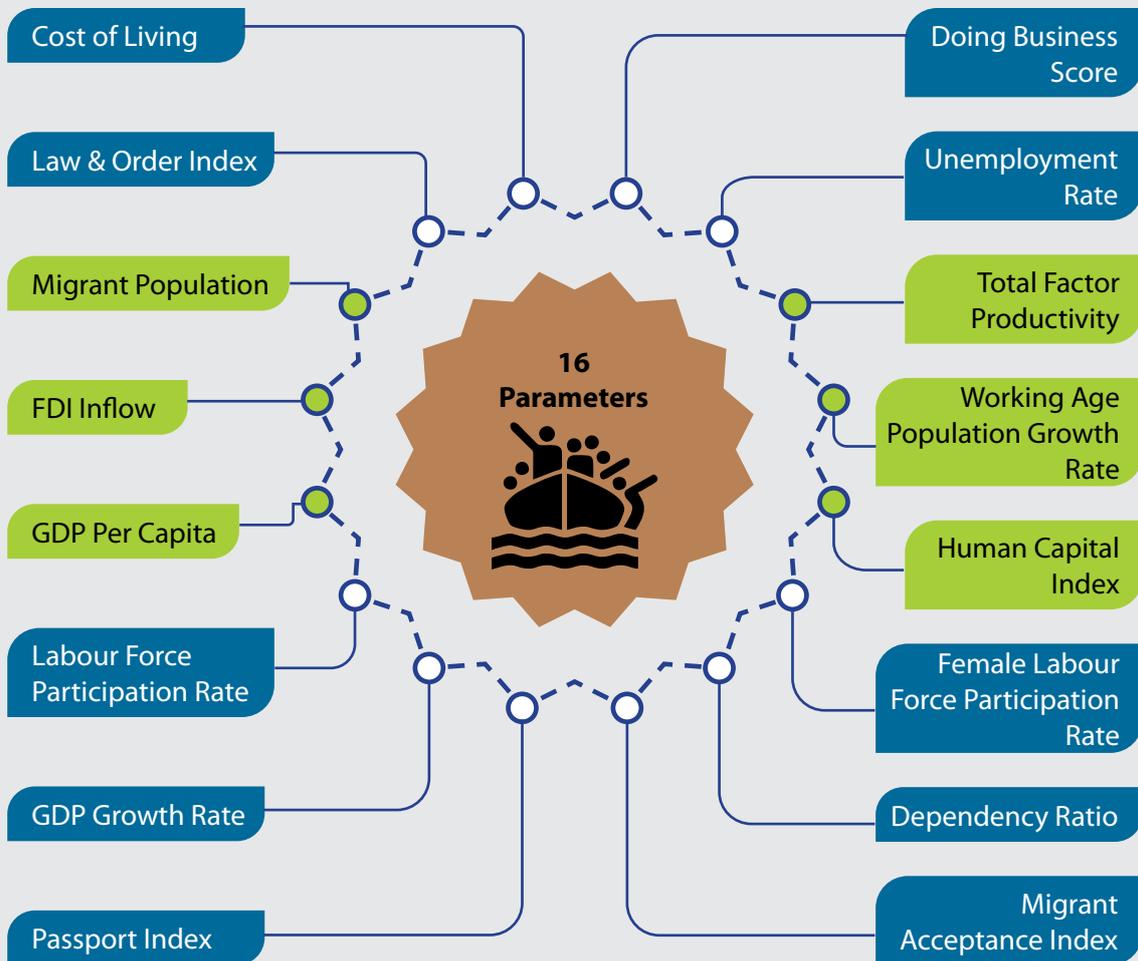
Use of Regression Techniques to Create GMAI

Stepwise regression analysis was used with incremental migration as the dependent variable and 16 independent variables shown in figure 3. Such multivariate methods allow deeper exploration of possible patterns that exist in the data. After running the regression on various combinations of 16 independent variables, six variables were found to be statistically relevant. With all 16 variables taken

Figure 2: Construction of the Composite Index



Figure 3: GMAI: Parameters correlated with migration patterns



Based on step-wise regression analysis, six relevant parameters were identified and considered for constructing the GMAI

together, the results were not significant. Based on regression analysis and secondary research, 6 variables were therefore considered for constructing the GMAI. The index is meant to indicate the attractiveness of a country for potential migrants.

2. India Migration Attractiveness Index (IMAI)

This index aims to represent the attractiveness of a country for potential migrants from India. 50 countries based on total stock of migrant Indians till 2017

were selected. These countries contribute to nearly 98 percent of the total migration from India. The countries were then ranked based on the stock of migrant Indian population, per capita income, Global Human Capital Index, and remittances received. The index was created by giving equal weight to all four factors.

- **Countries with a large/majority Indian population:** Existing migrant population and diaspora lower migration barriers such as housing, education, various cultural adjustments

and hence boost attractiveness for potential migrants.

- **Global Human Capital Index:** Human capital is a key factor for growth, development and competitiveness. The success of a country in developing and deploying its workforce is a factor considered by potential migrants in their decisions.
- **Per capita income:** Economic factors, and specifically large income differentials between countries, play an important role in determining migration flows.
- **Remittances received:** A remittance is the fund an expatriate sends to their country of origin via wire, mail, or online transfer. Remittances contribute significantly to the economy.

3. Strategic Markets and Government to Government (G2G) Partners

- **Japan:** The birth rate in Japan has been declining sharply and stood at 1.3 in 2007 – well below the level of 2.1 needed to maintain its current population. The country is therefore facing severe demographic problems. The declining birth rate, coupled with a rise in life expectancy since the end of the Second World War, has pushed up the country's average age. High old-age dependency ratio and a shrinking labour force is putting pressure on public finances. Japan's government has therefore made policy-level changes for simplifying visa rules, including for Indians. The relaxations are expected to strengthen people-to-people exchanges between Japan and India. Programs like Technical Intern Training Program (TITP) have also been introduced to accept people from other countries for a specified time period and for the transfer of skills through on-the-job training.



The success of a country in developing and deploying its workforce is a factor considered by potential migrants in their decisions.

- **Sweden:** According to the Migrant Integration Policy Index (MIPEX)¹ 2015, Sweden is rated the most migrant-friendly country in terms of its favourable policies for labour market mobility, anti-discrimination and access to nationality. Immigrant integration is the process by which immigrants and their children feel a sense of participation in the everyday life of their adopted country: in its schools, workplaces, and communities. Government policies, initiatives, and programs help determine immigrants' opportunities to participate in society and enjoy the same rights and responsibilities as the local population.

Identification of 15 countries

For each country, the GMAI and IMAI were weighted equally to create a composite rank of the 50 countries shortlisted for the IMAI. Of the 15 countries that were considered, 4 countries had over-representation from the same geography (with more than 50 percent being from the GCC Block), hence succeeding countries from the ranking based on the composite index were considered. Other countries have been considered due to their strategic bilateral importance to India.

Table 1: 15 countries finalised for the study and their rank

| S.No. | Country | India Rank | Global Rank | Composite Rank | Reason for Selection |
|-------|--|------------|-------------|----------------|--|
| 1 | United States  | 1 | 1 | 1 | Ranking among the top 20 in the Composite Ranking, incorporating the Global and Indian Migration Attractiveness Index Rankings |
| 2 | Qatar (GCC Block)  | 4 | 2 | 2 | |
| 3 | United Kingdom  | 5 | 3 | 3 | |
| 4 | United Arab Emirates (GCC Block)  | 2 | 8 | 4 | |
| 5 | Saudi Arabia (GCC Block)  | 3 | 7 | 5 | |
| 6 | Singapore  | 6 | 5 | 6 | |
| 7 | Canada  | 9 | 14 | 9 | |
| 8 | Switzerland  | 13 | 11 | 11 | |
| 9 | Australia  | 12 | 12 | 12 | |
| 10 | Germany (EU Block)  | 16 | 9 | 13 | |
| 11 | Netherlands (EU Block)  | 17 | 10 | 14 | |
| 12 | Malaysia  | 8 | 23 | 16 | |
| 13 | New Zealand  | 23 | 21 | 18 | |
| 14 | Sweden (EU Block)  | 19 | 28 | 20 | G2G ties with India |
| 15 | Japan  | 25 | 49 | 30 | G2G ties with India |

¹ MIPEX is a unique tool that measures policies to integrate migrants in EU member states, Australia, Canada, Iceland, Japan, South Korea, New Zealand, Norway, Switzerland, Turkey and the US.

PATHWAYS FOR ECONOMIC MIGRATION

The report highlights six ways in which economic migration happen from one country to a destination country.

Models

1. **Apprenticeship:** Migrants can enter countries such as Germany and Sweden as apprentices, affiliated with a commercial entity. There are some other countries that have strict restrictions on the entry of immigrants who are not a part of their systemic Technical and Vocational Education and Training (TVET) apprenticeship processes.
2. **Trade partnerships:** Several countries are actively forging international ties and securing a level playing field for their workers in other countries by means of trade partnership agreements.
3. **Mobility partnerships:** Countries like the Philippines have been able to forge mutually beneficial relationships with countries like the UK and Japan, fundamentally accelerating migration to the latter. The Philippines has created a well-established market for its healthcare workers via proactive bilateral agreements the world-over; and has also successfully skilled its migrant workforce, thereby successfully negotiating higher wages.
4. **Cyclical employment:** Seasonal employment exchanges or cyclical employment phenomena are common amongst most EU countries. They pertain to a system where the migrant labour seasonally or temporarily enters another country's market to overcome labour shortages in select sectors.
5. **Student partnerships:** Students move across international borders for accessing opportunities for education. They often become part of the destination country's labour force after completing the education program, provided there is adequate support from the country's institutions and processes.
6. **Employer/Recruitment Agent (RA) partnerships:** Employer-led migration can effectively guarantee livelihood security to migrants. RAs who are bound by laws and regulations could play a vital role in promoting international mobility of the workforce.



KEY FINDINGS AND RECOMMENDATIONS FOR GCC COUNTRIES

Key Findings: GCC Countries

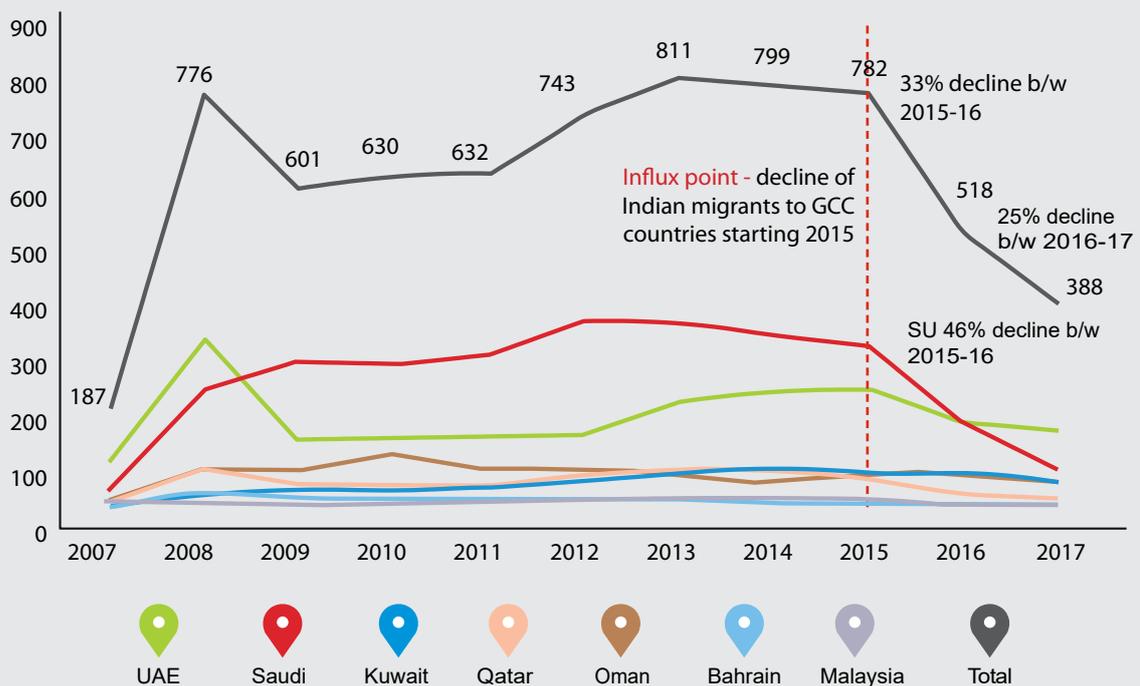
52 percent of the total population in GCC countries consists of migrants. In the UAE, Qatar, Kuwait and Bahrain, the population of migrants outnumbers that of natives. Majority of the migrants work in the private sector in un-skilled or semi-skilled roles. GCC nationals prefer to work in the public sector and are unwilling to work in vocational trades.

GCC countries require the migrant workforce to sustain economic growth and to support large infrastructure investment plans and economic diversification plans. There is a large gap between nationals and migrants in terms of labour costs and types of skills, and this is unlikely to change anytime soon. This also aligns with the business interests of companies operating in the GCC region.

Although the GCC countries will continue to be dependent on migrant workers, there is growing pressure to protect jobs for nationals. An example of this is the Saudi nationalization scheme drive that focuses on creating jobs for Saudi nationals in the private sector. This drive has led the government to take steps like imposing fees on dependents of migrant workers and restricting migrants from working in certain sectors.

These steps have had an impact on the migrant population in the region. More than 1.1 million migrants left Saudi Arabia during 2017-18. While the GCC region continues to be a favourable destination for Indian migrants, the impact of such steps by the governments in the GCC region has led to an overall decline in the migrant population over the years. The following graph highlights the decline of Indian migrants in the Emigration Check Required (ECR) region since 2015.

Figure 4: Decline of Indian Migrants in the ECR Region Since 2015



The ban on Bangladeshi workers during 2008 was relaxed in 2015, leading to an influx of manpower from Bangladesh. Migrants from Bangladesh also demand much lower wages (AED 650-850) as compared to Indian workers (AED 1000-1200).

Notwithstanding the above, the UAE, Saudi Arabia, Kuwait and Oman contributed to 87 percent of India's migration to the ECR region in 2017. The top 35 job roles contributed to 90 percent of India's migration in the above-mentioned countries. The top 4 job roles – mason,

furniture carpenters, general labour, driver (light duty vehicles) contributed to 52 percent of the migration.

13 Indian states contributed to 96 percent of the total migration during 2011-2017. The top 3 contributing states included Uttar Pradesh, West Bengal and Bihar. It is also observed that clusters of dominant districts in these states contribute to the largest share of migrants from those states.

Given current trends and strategies, the following Indian migrant demand in the GCC block can be envisioned:

Table 2: Sector-wise demand in the next 5 years for Indian migrants: GCC

| | Sector | Potential Replacement & New Jobs for Indians, GCC (3 Countries) ('000) |
|---|--|--|
|  | Construction | 1170 |
|  | Wholesale & Retail Trade, Repair of Motor Vehicles & Motorcycles | 423 |
|  | Real Estate, Rental & Business Services | 283 |
|  | Transport Storage & Communication | 274 |
|  | Financial & Insurance Activities | 87 |
|  | Manufacturing | 250 |
|  | Community, Social & Personal Services | 140 |
| | Total | 2634 |

Table 3: Key Job Roles: GCC

| United Arab Emirates | Saudi Arabia | Qatar |
|----------------------|----------------------|---------------------|
| Mason | Driver (Light Duty) | Blacksmith |
| Furniture Carpenter | Cleaner | Driver (Light Duty) |
| Electrician | Mason | Electrician |
| Steel Fixer | Furniture Carpenter | Furniture Carpenter |
| Painter | Electrician | General Labour |
| Welder | Nurse | Mason |
| Metal & Steel Worker | Heavy Vehicle Driver | Technician |
| Plumber | Steel Fixer | |
| | Plumber | |

Recommendations: GCC Countries

Given the above-mentioned trends and challenges, for India to maintain and grow its share of migrant workers in the GCC region, it would need to align its strategies to focus on the following:

- Establishing equivalence between National Skills Qualification Framework (NSQF) standards and proposed standards in Gulf countries.
- Establishing Testing Centres in PPP model with the private sector.
- Establishing of Training Centres in PPP model in migrant labour cluster areas.
- Using the experience of Gulf returning workforce as trainers in skill development ecosystem.
- Working with the Ministry of External Affairs (MEA) on issues related to migrant worker rights in each of the GCC countries.
- The office established in GCC by NSDC needs to be strengthened to enable the above activities.

KEY FINDINGS AND RECOMMENDATIONS FOR EUROPEAN COUNTRIES

Key Findings: European Countries

The population of the European Union (EU) is set to decline by 8 percent by 2050 without a migrant population. 25 EU countries are headed for a dip in their total population, and only five will see a rise. At current migration levels, 15 countries in the EU block will experience population growth,

while the balance 15 will face a decline in total population despite the inflow of migrants.

Analysing the workforce, the EU shows a declining trend. By 2040, its population in the age group of 25-49 years will show a downward movement, with average age at 43 years, thereby indicating an ageing population. India, on the contrary, shows an upward trend. Its average age will be 29 years by 2020, with 65 percent of the population below 35 years and 50 percent below 25 years.

The fertility rates are also low in the EU, at ~ 1.6 live births per female. This is much lower than the replacement level of 2.1, the level that is required to sustain natural population growth so that population does not decline. Hence, the EU block is faced with the dual challenge of an ageing population and low fertility rates. This situation is further compounded by an expected increase in the dependency ratio from 54 percent to 64 percent by 2037.

The EU block is faced with the challenge of an ageing population and an expected increase in the dependency ratio.

A deep dive into the impact of an ageing population on the EU labour market confirms that from 2016 to 2030, roughly 151 million jobs will emerge in the region. 91 percent of these will be replacement jobs while 9 percent will be new jobs. 50 percent of the replacement jobs will be due to a retiring workforce while the rest would be due to other factors like outward migration from the EU. For example, in Germany, total net job openings are projected to be 27.05 million approximately (27.24 million replacement jobs and 0.19 million job loss).

The decline in population has huge implications for the EU block, especially for the pace of economic growth. Given the dual challenge of low fertility and an ageing population, it will be a challenge for the region to cater to replacement demand, resulting in labour shortages.

Considering these challenges, EU countries have resorted to specific measures aimed at reducing labour shortages. These measures include augmenting labour force participation rate and extending the retirement age. However, these measures will require long time periods to show effective results.

One viable solution is to place international migrants in regions and sectors facing labour shortages. This transfer could take place from countries like India, which has a large pool of young workers who could be appropriately skilled. It is important to note here that other countries offer tough competition to India in the supply of migrant workers. For example, Poland has been successful in placing more workers in Germany than India. This can be attributed to a multiplicity of factors such as ease of access to neighbouring EU countries and easier work permit requirements.

Both short-and long-term opportunities are available to international migrants in the EU. Short-term opportunities arise owing to the paucity of applicants with the requisite



skills for advertised openings. Long-term opportunities emerge as a result of the reluctance of domestic labour to join the workforce despite having the necessary skills. Short-term opportunities can be found in the electrical, electronic, metal and machinery trades, and in professional services like ICT, business, teaching and administration. These opportunities are likely to be available only until the EU population is adequately skilled to meet the requirements. Long-term opportunities exist for health professionals, labourers, cleaners, elementary & service workers, primary sector labourers, and machine operators.

These opportunities may exist for more time because of the lack of willingness amongst the local population to work in these occupations. The underlying premise is that behavioural change and preferential social choices take longer to manifest compared to educational and technical initiatives whereby skills are imparted upfront.

Table 4: Sector-wise demand by 2030 for Indian migrants: European countries

| | Sector | Potential Replacement & New Jobs for Indians (5 Countries) ('000) |
|---|---------------------------------|---|
|  | Accommodation & Food | 30 – 35 |
|  | Administrative Services | 9 – 11 |
|  | Agriculture, Forestry & Fishing | 10 – 12 |
|  | Arts & Recreation | 13 – 15 |
|  | Construction | 23 – 27 |
|  | Health & Social Care | 95 – 110 |
|  | ICT Services | 8 – 10 |
|  | Manufacturing | 48 – 57 |
|  | Transportation & Storage | 22 – 26 |
| | Total | 260-305 |

Table 5: Key Job Roles: European countries

| Germany | Netherlands | United Kingdom | Sweden | Switzerland |
|-----------------------------------|--------------------------------|-----------------------------------|-----------------------------------|--|
| Trades Workers | Care Workers | Health Associate Professionals | Care Workers | Technicians & Associate Professionals |
| Farm & Related Workers | Health Professionals | Operators & Assemblers | Health Professionals | Professionals |
| Operators & Assemblers | Cleaners & Helpers | Care Workers | Health Associate Professionals | Service & Sales Workers |
| Health Associate Professionals | Personal Service Workers | Trades Workers | Trades Workers | Plant & Machine Operators & Assemblers |
| Science & Engineering Technicians | ICT Professionals | Health Professionals | Cleaners & Helpers | Clerical Support Workers |
| ICT Professionals | Health Associate Professionals | Cleaners & Helpers | Food Preparation Helpers | Craft & Related Trade Workers |
| Health Professionals | Drivers & Vehicle Operators | Personal Service Workers | Drivers & Vehicle Operators | |
| Personal Service Workers | Science & Engg Technicians | Food Preparation Helpers | Science & Engineering Technicians | |
| Cleaners & Helpers | Trades Workers | ICT Professionals | Machine & Plant Operators | |
| Science & Engg Technicians | Farm & Related workers | Science & Engineering Technicians | Farm & Related Workers | |

Recommendations: European Countries

In view of the findings of the report, advocacy strategies have been devised for the EU region to enable India to leverage its strengths and complement the requirements presented by the EU region.

NSDC could spearhead the project operations via the following steps:

- Prioritization of identified sectors:** The key sectors identified by the report could be prioritized for training. This would enable credible outflow in the requisite occupations and sectors that have substantial potential.
- Identification of industry/association partners in destination countries:** The importance of collaborating with industry associations has been highlighted in the report and remains cardinal in capturing the relevant market.
- Establishment and mapping of standards and training requirements:** Improvement of training infrastructure including standardization of courses and paying heed to other vital requirements in the training value chain mapped to destination-country requirements. This also includes mapping of NSQF levels with training standards defined for the destination countries.
- Establishment of migrant-entry-model and detailing procedural systems:** The institutional and governance apparatus needed to provide auxiliary support to the establishment of legal routes to accelerate the pace of migration, must be set-up.
- Validating and judging skill shortages and concomitant targets for Indian workforce:** In view of the shortages that exist in labour markets in the EU,

a target of capturing 10-20 percent of the total openings available to migrants from India has been proposed.

- Signing MoUs/agreements with sector associations:** Various sector associations need to be included in the processes aimed at augmenting migration in specific sectors. This report identifies sectors with shortages that may draw Indian migrants and should be considered while shortlisting industry associations.



Advocacy strategies have been devised to enable India to leverage its strengths to meet skill requirements presented by the EU region.

MSDE/MEA could leverage its strengths by initiating the following:

- Initiation and strengthening of **G2G interactions and consultations**
- **Piloting** activities and initiatives in select geographies and sectors in the EU region
- **Scaling-up** successful models and practices

Setting up a representative office of the NSDC in the EU region is recommended.

This EU cell would serve as the nodal point of contact to aid liaising with the government and industry in the EU region. The office would serve important functions such as garnering information regarding specific occupations with the potential to absorb Indian migrants, the skills required by Indians to enter the EU markets, establishing legal routes to allow Indians to enter the EU labour market, dissemination of information and promotion of the Indian workforce in destination countries. The scope of enlarging the ambit of activities to be undertaken by the representative office remains flexible.

KEY FINDINGS AND RECOMMENDATIONS FOR COUNTRIES WITH MATURE MIGRATION SYSTEMS

Key Findings: Countries with mature migration systems

Countries with mature migration systems are those that have well developed and clearly laid out migration requirements. These countries duly state the requirements in terms of perceived labour shortages in their countries and update these on

These countries have systematically devised migratory routes based on processes of verification and assessment. They also list the sectors and occupations in which international migrants could be admitted.

their respective 'labour and migration' portals regularly. They also highlight these shortages via customised international programs such as the Technical Intern Training Program (TITP). The countries studied in this report are Canada, the US, Japan, Australia, Singapore, Malaysia and New Zealand. These countries have systematically devised migratory routes based on processes of verification and assessment. They also list the sectors and occupations in which international migrants could be admitted. This is done via a points-based system wherein points are accorded to skills and credentials possessed by the candidates.

The commonalities amongst these countries are not only limited to the nature and transparency of migratory strategies and processes but also extend to the composition of their populations. These nations have an ageing population phenomenon, akin to the situation in the EU. The median age in Australia is 37.3

years, Singapore is 42.4 years, Canada is 40 years, Japan is 47.3 years, New Zealand is 37.3 years, and the USA is 37.8 years. The situation is further compounded by low fertility rates. For example, Japan has a fertility rate of 1.3, Canada has 1.6, Malaysia has 1.9.

As the economy of the nation grows and the employed workforce retires, the need for new jobs and replacements is likely to emerge in these nations. In Canada alone, approximately 0.5 million replacement jobs and 0.17 million new jobs will be created in key identified sectors exhibiting the potential to absorb international migrants.

The local population of these countries will not suffice to bridge the labour shortages due to the dual challenge of low fertility rates and an ageing population. As more and more people retire from the workforce, they will not be replaced sustainably by a younger cohort.

Akin to the phenomenon in the EU, these countries' governments are also attempting to offset the impact of the population decline. These measures include attempts to increase the retirement age and augment labour force participation, especially for women. However, these measures alone may not have the requisite or substantial impact and would require longer time periods to show effective results.

As an alternative solution, international migrants could be productively utilised to ease the labour shortages in these countries in select sectors and occupations. This transfer could take place from relatively younger countries like India.

India could benefit tremendously from this opportunity. Moreover, these countries already possess mature migration corridors, i.e. well-established



As the economy in these countries grows and the employed workforce retires, the need for new jobs and replacements is likely to emerge.

Table 6: Sector-wise demand in the next 5 years for Indian migrants: Countries with mature migration systems

| | Sector | Potential Replacement & New Jobs for Indians (7 Countries) ('000) |
|---|---------------------------------------|---|
|  | Health Care & Social Assistance | 180-220 |
|  | Construction | 80-100 |
|  | Manufacturing | 50-90 |
|  | Agriculture | 40-60 |
|  | Rental, Hiring & Real Estate Services | 30-40 |
|  | Wholesale & Retail Trade | 20-30 |
|  | Transport, Postal & Warehousing | 10-20 |
|  | Accommodation & Food Services | 10-15 |
|  | Financial & Insurance Services | 5-8 |
|  | Mining | 3-6 |
| | Other Services | 300-350 |
| | Total | 850-950 |

Table 7: Key Job Roles: Countries with mature migration systems

| Singapore | Australia | New Zealand |
|----------------------------------|-----------------------------------|---------------------------|
| Sales Executive | Software & Application Programmer | Retail Manager |
| Teaching & Training Professional | Cooks | Automobile Repair |
| Healthcare Assistant | Registered Nurse | Executives in Real Estate |
| Technical Sales Professional | Construction Labour | Field Technician |
| Senior Executive | Motor Mechanic | Hospitality Manager |
| Heavy Truck & Lorry Driver | | Caretaker |
| Taxi Driver | | Registered Nurse |
| Logistics Coordinator | | |
| Shop Sales Assistant | | |

| Canada | USA | Japan | Malaysia |
|------------------------------------|-----------------------------------|----------------------------------|---------------------------|
| Information System Analysts | Personal Care Aid | Care Worker | Sales Workers |
| Registered Nurses | Non-Farm Animal Caretaker | Construction (22 job roles) | Helpers & Casual Workers |
| Care Worker | Barbers | Machinery & Metal (15 job roles) | Plan & Machinery Operator |
| Early Childhood Educators | Information Security Analysts | | |
| Social & Community Service Workers | Solar Photovoltaic installers | | |
| Food & Beverage Server | Rotary Drill Operators, Oil & Gas | | |
| Software Engineers & Designers | Healthcare Social Workers | | |
| Graphic Designers & Instructors | | | |

routes via which international migration has been taking place. Hence, Indian's could leverage the systemic processes to their advantage and make use of the organised emigration mechanism.

This route to reach the destination nations consists primarily of four types of assessments and verification checks. The qualifications and expertise of incoming candidates are verified by reviews of their credentials, theoretical and practical tests, occupational and public safety appraisals. The migrants would need to pass the above-mentioned assessments in order to be legally admitted to the relevant nation.

Recommendations: Countries with mature migration systems

The market model recommended by the report is a 'Sending Organisation (SO)/Recruitment Agent (RA)' driven model.

- The recruitment agents or sending organisations would be empanelled with the government.
- They would be responsible for promoting relevant opportunities and mobilizing candidates.
- The RAs will also provide auxiliary support to candidates in qualifying for the tests mandated by the destination countries.
- They will work closely with the testing centres of the destination nations located in India. For example, employers in countries like Canada and Australia select candidates based on a credentials review and interview, following which the candidate must go to the respective country and pass relevant trade tests within a stipulated timeframe. The proposed models will help make the process easier for

the candidate and enable him/her to undergo the test in India itself. This assessment is duly recognised by the respective government.

- Further, the RA also helps candidates with documentation, visas, and travel arrangements.
- RAs will conduct training programs to help with the test as well as liaise with certified providers to train the candidates. Ancillary facilities such as accommodation would be provided by the RAs.
- Testing centres of the destination nation must be set-up in India, thereby allowing the four types of assessments mentioned earlier to be locally held. Presently, only Singapore has testing centres in India where candidates interested in migrating to the nation can get their applications processed and skills verified locally instead of flying to Singapore for the attestation and recognition of skills. The other nations presently do not have local testing centres in India.

The market model recommended by the report for countries with mature migration systems is a 'Sending Organisation (SO)/Recruitment Agent (RA)' driven model.



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Disclaimer: In this report, multiple data sources have been referred to which are dynamic and constantly changing. It includes ILO, IMF, Knomad, World Bank, OECD and Oxford Economics. It may lead to slight variations in the analysis and projections.

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About National Skill Development Corporation (NSDC): National Skill Development Corporation, working under the aegis of Ministry of Skill Development & Entrepreneurship, is a unique public-private-partnership which aims to catalyze creation of quality vocational training ecosystem in India. The organisation provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train-the-trainer academies either directly or through partnerships. Since establishment in 2009, NSDC has trained more than 2 crore people through its partnership with 600+ training partners, wide a robust network of 11,000+ training centers spread over 600 districts across the country. NSDC has institutionalized 37 Sector Skill Councils and is also implementing Government's flagship skill development schemes such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra (PMKK), National Apprenticeship Promotion Scheme (NAPS), among others.

CONTACT US: NSDC's Skills Intelligence Platform at skillsip@nsdcindia.org

