



A DUAL MIGRATION STRATEGY FOR PAKISTAN

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Over 13.5 million of Pakistan's citizens have migrated to work in about 50 countries. This makes Pakistan one of the largest exporters of human capital in the world¹⁰³. This mass emigration functions as a financial lifeline for the country's economy. Pakistan received about \$38.3 billion remittances in 2024-2025¹⁰⁴. This makes the economy structurally fragile due to heavy dependence on a single geographic corridor of remittance inflows. Likewise, 54 percent of total remittances originate from the middle east, mainly Saudi Arabia and the UAE. This intensity could be transformed from an asset into vulnerability due to the recent war related instability in the Gulf¹⁰⁵.

This results a puzzling situation for Pakistan in a sense that on one hand it is losing its talent whereas at the other hand millions of its low-skilled workers work in a region now threatened by conflict. About 727,381 workers registered for overseas employment in 2024, and according to the statistics the number of highly skilled emigrants surged by 119 percent between 2022 and 2023¹⁰⁶. According to Khizar remittances have become a

remittance mirage for the country¹⁰⁷. Pakistan have acquired time instead of structural or economic

According to Suleri (2026), about 96 percent of the registered Pakistani workers go to the GCC countries. In 2024, 62, 9 percent went to Saudi Arabia and UAE respectively. These two countries together provide about \$11 billion annual remittances, which are more that one third of Pakistan's total remittance receipts¹⁰⁸. According to Khizar, Pakistan has obtained what one can call it a "concentration risk on a grand scale"

103. Immigrant Times. (2026). Pakistani emigrants settle in Europe and the US, but the Gulf states only offer temporary stays

104. State Bank of Pakistan, (2026)

105. Insight Securities. (2026, March). Middle East tensions could threaten Pakistan's crucial remittance inflows

106. (Bureau of Emigration and Overseas Employment [BE&OE], 2024)

107. Khizar, A. (2026, February 2). Pakistan's remittance mirage. Business Recorder.

108. Express Tribune. (2026a, April 21). Falling remittances and rising energy prices: A double whammy.

The recent war crisis in the Middle East has now transformed this vulnerability into a clear threat. The Gulf reputation of a stable wealth hub has been shaken by the United States, Israel, and Iran war. The PIDE, projected that about half a million new workers may not migrate to the Gulf in 2026, if the war continues. Likewise, a similar number could be forced to return to Pakistan. It was estimated that remittance inflows would reduce by \$3–4 billion on annual basis. In 2025, Pakistan's remittances were \$38.3 billion, which are roughly equal to exports. The symmetry between remittances and the productive export capacity of the country reveals a structural flaw that no short-term stability can mask. The country must enhance its productive export capacity for long-term stability¹⁰⁹.

LOSING THE ENGINE OF INNOVATION

The Gulf dependency is further intensified by the accelerated exodus of skilled and highly educated professionals from the country. Accordingly, the country's economy is labeled Brain Drain Economy that heavily depends on exporting its workforce rather than retaining it to rebuild its institutions. In 2024 and 2025, it was recorded that nearly 5,000 doctors, 11,000 engineers, and over 13,000 accountants migrated from the country¹¹⁰.

The skill composition of Pakistani emigrants reveals a concerning trend. The percentage of highly skilled individuals leaving has risen in recent years. The talent we have lost over the years could otherwise anchor a domestic innovation ecosystem. In the long run, brain drain can weaken economic growth potential by reducing innovation, increasing skill gaps, mentorship for future talent and reducing the quality of important services¹¹¹. The financial benefit given by remittance flows is important but they cannot replace the dire institutional role of skilled professionals in terms of innovations.

THE DUAL STRATEGY

Here, we propose to manage migration strategically and not stop migration. This is neither feasible nor desirable given our young and growing labour force population. Shin, proposed a four-part framework in this regard which is quite intuitive in our case: brain train, brain gain, brain linkage, and brain circulation. Usually, countries do not rely solely on a single approach; instead, they combine a mix of these strategies over time¹¹². Here we present the case of Pakistan's closest comparators like India and China which offer helpful evidence on these models.

CHINA'S TALENT CIRCULATION MODEL

China has strategically designed its migration and talent policies to transform brain drain into "brain circulation," positioning itself as a global hub for technology and innovation. Since the 1980s, China has increasingly attracted overseas Chinese scholars, primarily those trained in the United States, back into its domestic innovation system. Thousand Talents Program (TPP) initiated in 2008, provided substantial financial incentives, research funding, housing support, and senior academic positions to high-skilled returnees. Within five years, the program had attracted over 3,300 high-level overseas researchers, considerably enhancing China's scientific capacity¹¹². By 2020, China's broader returnee population had reached approximately 6.23 million overseas-educated professionals, which indicates the large-scale success of its talent circulation strategy¹¹³. In addition to this, China now hosts around 91 million science and technology personnel, making it the largest scientific workforce worldwide, while returnees occupy dominant positions in research leadership accounting for over 70% of directors in key laboratories and more than 60% of PhD supervisors in top universities¹¹⁴.

109. Pakistan Institute of Development Economics. (2026). Impact of Middle East conflict on overseas employment and workers' remittances [Working paper]. PIDE

110. iNews Global Insight. (2025, December 28). Pakistan brain drain deepens as thousands of skilled workers leave the country

111. Khan, A. M. (2024). The effect of brain drain on the economic growth of developing countries: Evidence from Pakistan. *Annals of Human and Social Sciences*, 5(2), 383-392.

112. Shin, G.-W. (2025). *The four talent giants: National strategies for human resource development across Japan, Australia, China, and India*. Stanford University Press

113. Xie, Y. (2021). Talent migration in knowledge economy: The case of China's Silicon Valley, Shenzhen. PMC / National Center for Biotechnology Information.

114. Kerr, W. R. (2007, January 22). *The immigrant technologist: Studying technology transfer with China*. Harvard Business School Working Knowledge

This strategy is clearly exhibited in innovation-driven regions such as Shenzhen, which combines incentives for overseas returnees, attraction of foreign experts, and strong support for domestic science and engineering graduates alongside continuous investment in higher education and R&D infrastructure. Consequently, China has experienced rapid technological upgrading, including a 219% increase in invention patent applications and a 435% rise in patent grants between 2011 and 2023, demonstrating its growing innovation capacity¹¹⁵. Empirical evidence further supports this model, shows that diaspora and returnee networks significantly enhance technology diffusion and increase exports in technology-intensive sectors.

INDIA'S DIASPORA LINKAGE MODEL

India policy on the other hand focus on nurturing diaspora linkages rather than treating migration as permanent loss. It cultivated international linkages that route investment, knowledge, and productive networks back to the country. Shin, reports that alumni of the Indian Institutes of Technology (IIT) now function as intercontinental bridge between India and the Silicon Valley¹¹⁶. A major pillar of this model is the strong role of diaspora-led financial inflows. India remittances were \$137 billion in 2024, making one of the largest recipient globally¹¹⁷. Importantly, a growing share of these remittances originated not mainly from Gulf, but from a high-skilled diaspora in in the United States, the UK, Australia etc.¹¹⁸. these inflows not only support the household consumption but also considerably contribute to skills development, entrepreneurship and investment.

In addition to financial linkages, India has developed structured policy instruments to integrate diaspora expertise into domestic institutions. The schemes such as the VAJRA (Visiting Advanced Joint Research) Faculty Scheme, which brings overseas Indian researchers and scientists to collaborate in domestic institutions of importance¹¹⁹. Alongside VAJRA, programs such as Pravasi Bharatiya Divas and OCI (Overseas Citizen of India) status further institutionalize diaspora engagement as a long-term development strategy

PAKISTAN'S PATH FORWARD: A TWO-TRACK POLICY AGENDA

TRACK ONE: DIVERSIFYING LOW-SKILLED LABOUR EXPORT

With the over expanding labour force of 83 million in 2024 and 26 percent aged 15–29¹²⁰, the immediate policy response should be a geographic diversification away from the Gulf. Pakistan should actively pursue bilateral labour agreements with Europe, East Asia, and emerging markets in Africa and Central Asia at the earliest. Government-funded vocational training programmes such as Prime Minister Youth Skill Development Programme under the NAVTTC should be tailored to the skill demands of these destination countries such as caregiving in Japan and manufacturing in Eastern Europe to increase per-worker remittance earnings while reducing dependence on any single corridor such as the Gulf.

Likewise, the upgradation of the skills of workers currently directed at Gulf employment would also yield dividends. A semi-skilled construction worker with a professional certification would command higher wages and will remit more to the country. The BE&OE and NAVTTC authorities should shift from a volume-based model to a value-based model giving premium to certification.

115. Xie, Y. (2021). Talent migration in knowledge economy: The case of China's Silicon Valley, Shenzhen. PMC / National Center for Biotechnology Information.

116. Shin, G.-W. (2025). The four talent giants: National strategies for human resource development across Japan, Australia, China, and India. Stanford University Press

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118. (United Nations Department of Economic and Social Affairs [UNDESA], 2025)

119. GeoStrata, The. (2025, October 17). India's lost talent: Analysing brain drain and its impact

120. Ministry of Finance, Government of Pakistan (2024)

TRACK TWO: ATTRACTING TOP DIASPORA TALENT FOR INDUSTRIAL GROWTH/ TECHNOLOGY-DRIVEN EXPORTS

Given the country's emerging export-oriented sectors, there is a substantial scope to attract top talent in these sectors. In each of these sectors, the return of diaspora expertise and the attraction of global professionals can produce measurable export value. The main idea is that technology transfer through people, not just equipment is the critical variable to growth and development¹²¹.

One of these sectors is IT, which has demonstrated remarkable growth in the recent past. IT and digital services exports reached \$3.8 billion in FY2025, an 18 percent increase over the previous year (Dawn, 2026). The recent initiatives of the government that the Special Technology Zones Authority (STZA) has established zones offering tax exemptions and infrastructure support. The SBP has raised foreign currency retention limits for IT exporters to 50 percent, and the Digital Nation Act 2025 has further unlocked a wave of entrepreneurship. Additionally, the CPEC Phase II quantum valley project is positioning the country as a future hub for AI, quantum computing, etc.

But to truly unlock the growth potential from these initiatives, the country must complement these export facilitation measures with the policy to attract top diaspora talent. Pakistan's strong diaspora represents a vast untapped reservoir of capital, expertise, and global networks. A structured Pakistan Talent Return Programme, modelled on China's Thousand Talents Programme and India's VAJRA scheme, could offer a start in the right direction.

AgriTech is another untapped opportunity for Pakistan. Platforms such as satellite-based crop intelligence and irrigation and smart warehousing can enhance crop productivity. The Pakistan Agricultural Research Council reported that adoption of precision agriculture techniques led to a 20 percent increase in productivity in Punjab and Sindh. Returning diaspora trained in countries with mature agricultural technology ecosystems can further enhance agricultural innovations in the country. Likewise, textile is Pakistan's largest export category and are awaiting the value-chain upgrade that only knowledge-intensive talent can deliver. Finally, Pharma, could become Pakistan's next major non-textile export success story²¹.

In nutshell, Pakistan's migration story is a story of delayed choices. Without any doubt the remittances have provided the country with vital support, but they have also reduced the resolve for deeper structural reforms in the country. As the Gulf war threatening a \$3–4 billion drop in remittances and also skilled professionals leaving the country, the country needs a proactive migration management policy. We need to diversify low-skilled labor exports beyond the Gulf, upgrade worker skills to boost remittance earnings, and create favorable conditions or environments to attract top diaspora talent. The narrative of India and China show that engaging top diaspora talent can turn brain drain into a national asset.

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