Reimagining Migration: Social Science Innovations for Kerala's Development Paradox

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Abstract

The post-COVID surge in youth outmigration from Kerala underscores the persistent mismatch between high educational attainment and limited local employment opportunities. This paper investigates the economic, social, and educational drivers of youth migration, with particular attention to unemployment, underemployment, and the pursuit of upward mobility abroad. Using secondary datasets — comprising the Kerala Migration Survey 2023 — and regression analysis, the study establishes a solid positive association between local job-seeking inclinations and international student migration ($R^2 = 0.94$, $p < 0.01$). Beyond ascertaining push–pull dynamics, the paper presents a Migration–Innovation Dynamics Model that outlines migration as both a structural reaction and an initiator for social innovation. The results make the case that data-driven government, inclusive skill ecosystems, and young participation may turn Kerala's dependence on migration into a route toward sustainable growth. By locating Kerala as an epitome of worldwide migration patterns, this research contributes an analytical framework that links migration studies with innovations in social sciences, offering actionable strategies to empower, retain, and successfully reintegrate the state's youngsters.

Keywords: Youth Migration, Kerala Economy, Employment Aspirations, Social Science Innovation, Policy Reform, Skill Development.

1. Introduction

Youth migration from Kerala has emerged as a defining socioeconomic trend, shaped by economic pressures and systemic employment challenges. Kerala has made outstanding progress in human development, healthcare, and literacy, but the state still finds it difficult to ensure adequate quality employment for its educated youth. This paradox has resulted in persistent exodus of people, both within India and abroad, as young people pursue economic stability and upward mobility (Nair, 2020; ILO, 2021). Kerala's dependence on remittances, predominantly from the Gulf region, has generated a unique financial model that withstands household income while concurrently developing structural dependence (Pillai, 2018; Zachariah & Rajan, 2022). While skilled youth mobility benefits host economies, it also highlights Kerala's inadequate ability to integrate its own human resources into profitable areas. Scholars contend that in order to match the aspirations of today's youth, this reliance paradigm is neither innovative nor sustainable (Sasikumar & Thimothy, 2015). Recent studies have progressively framed youth migration as a polyphenomenon, encompassing economic, social, cultural, and political dimensions that necessitate interdisciplinary investigation (Favell, 2021). In order to improve resilience in local economies, current migration discourse prioritize evidence-based

labour policies, education-industry alignment, and participatory research engaging migrant communities (ILO, 2022; OECD, 2023). These perceptions elevate migration studies as a locus of innovation in social science, where evolving concepts and policy innovations can address the complex interaction between development, mobility, and identity.This study places Kerala's youth migration dynamics in the broader currents in social science. It aims to generate practical insights for sustainable development by examining the socioeconomic drivers of migration alongside emerging research and policy innovations. In so doing, the study connects theoretical developments with actual data, providing a method to reframe migration in India's development rhetoric as a chance for social innovation rather than just a problem. This research presents Kerala as a microcosm of world migration challenges, exemplifying how regional experiences can inform comparative frameworks in social science innovation and migration research. By examining the drivers, patterns, and implications of youth migration, the study not only identifies gaps in local economic structures but also demonstrates how innovative social science perspectives — integrating economics, sociology, education, and governance — can contribute to sustainable and inclusive development strategies [1].

2. Review of Literature

2.1. Youth Migration Trends from Kerala

Researchers extensively examine youth migration from Kerala, underlining both internal and international flows. Nair et al. (2019) observe that Kerala's migration patterns are shaped by the paradox of high educational attainment alongside limited local employment opportunities. Rajan and Kumar (2020) point out that economic push factors and the pull of higher earnings overseas have been the main drivers of the migration of educated youth, especially to the Gulf. Such patterns have gotten worse in the post-COVID age, according to the Kerala Economic Review (2023), with a noticeable increase in the exodus of educated individuals looking for stability and international exposure. Recent studies (Rajan, 2022; Zachariah & Rajan, 2023) note a diversification of destinations beyond the Gulf, including Europe, Canada, and Australia. Student migration has grown in importance alongside labour migration, with overseas higher education acting as a springboard for long-term residency (Khadria, 2021). These changes highpoint the fact that migration is now a long-term livelihood option ingrained in Kerala's development model rather than a short-term employment approach [2].

2.2. Economic Impacts of Youth Migration

Migration has generated both positive and negative economic outcomes. On the positive side, remittances have boosted Kerala's economy by supporting household consumption, infrastructure development, and social welfare (Sathish et al., 2018; World Bank, 2022). Remittances have also contributed to Kerala maintaining one of the lowest poverty rates in India (Rajan, 2021). However, scholars caution that heavy reliance on remittances has created structural imbalances. Babu et al., (2017) and Krishnan & Das (2021) argue that overdependence on external income flows has hindered local industrialization, leaving the state's economy under-diversified. At the same time, the migration of skilled youth has led to a "brain drain," depriving local industries of innovation and productivity (Thomas & Mathew, 2016; Zachariah & Rajan, 2022). The demographic consequences are also critical: Kerala's rapidly aging population may intensify the labour shortage if large-scale youth outmigration continues (UN DESA, 2022) [3].

2.3. Employment Challenges in Kerala and India

Unemployment and underemployment remain central drivers of migration. Table 1 highlights the stark differences between Kerala's youth unemployment rates and the national averages. As Table 1 illustrates, Kerala's unemployment rates far exceed the national average across all categories, with female unemployment particularly acute at 56.6% in rural areas and 37% in urban areas. This reveals a structural labour market crisis, where educational attainment, especially for women, has not translated into meaningful employment opportunities. Such disparities not only drive migration but also underscore the urgent need for innovative policy approaches that address both gender inequality and skill–job mismatches.

Table 1 **Youth Unemployment Rate (15–29 years) as per Usual Status (ps + ss), 2023–24**

	Kerala (Male)	Kerala (Female)	Kerala (Person)	India (Male)	India (Female)	India (Person)
Rural	22.2	56.6	35.1	8.7	8.2	8.5
Urban	15.9	37.0	24.1	12.8	20.1	14.7
Rural+ Urban	19.3	47.1	29.9	9.8	11.0	10.2

Source: PLFS Report, 2023–24, Government of India

Another dimension is **employability**, which remains uneven across education streams. **Figure 1** demonstrates national employability trends over the last decade [4].

Figure 1 Workforce Employability Trends (2014–2024)
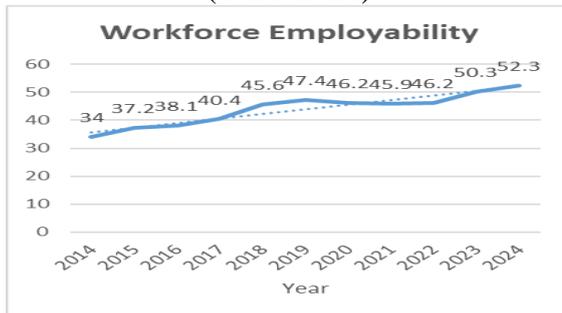
Source: India Skills Report, Wheebox (2024)

As shown in Figure 1, overall employability among Indian graduates has improved modestly to 52.3% in 2024, with MBA (71.2%) and engineering graduates (64.7%) leading the way. Yet, the data reveals that non-technical graduates remain less employable, reflecting a structural skill gap. Kerala mirrors this national pattern, but with sharper consequences: while highly educated, many of its graduates lack alignment with market demand, resulting in educated unemployment and subsequent migration (Rajan et al., 2018; Krishnan & Das, 2021).

2.4. Gender Dimensions of Migration

The gendered nature of unemployment in Kerala is one of the most striking features of its labour market. Despite high female literacy and educational achievement, women's labour force participation in Kerala remains below 25% (ILO, 2021; PLFS, 2023). Cultural expectations, family responsibilities, and lack of flexible or suitable employment options limit women's opportunities (Kodoth & Varghese, 2022). Many migrate for employment in domestic work, nursing, and caregiving sectors abroad, often under vulnerable conditions. Yeates (2021) argues that analysing such "global care chains" through a social science lens provides valuable insights into the intersection of gender, migration, and inequality [5].

2.5. Migration and Social Science Innovations

While traditional migration literature emphasizes economic push–pull factors, recent scholarship highlights the need for innovations in social sciences to reconceptualise migration. Favell (2021) advocates interdisciplinary migration research that combines economics, sociology, and political science to design resilient governance models. OECD (2023) highlights the value of big data and predictive analytics in labour market forecasting, which can inform migration and skill policies. UNESCO (2022) demonstrates the importance of participatory models where youth themselves co-create migration policies, ensuring inclusivity and responsiveness. In the Kerala context, Rajan (2022) and Zachariah & Rajan (2023) propose innovative approaches such as return-migration entrepreneurship, industry–academia linkages, and regional start-up ecosystems to create sustainable employment pathways. These perspectives reposition migration studies from a reactive narrative of "brain drain" to a proactive discourse on social innovation and local resilience [6].

2.6. Synthesis and Research Gap

The literature establishes that youth migration from Kerala is driven by structural unemployment, gendered disparities, and skill mismatches, while remittances have sustained but distorted the economy. Yet, there remains a significant gap in linking migration studies with social science innovations. Specifically, there is limited research on how education–industry partnerships, data-driven policy, and participatory youth engagement can transform Kerala's migration challenges into opportunities for sustainable development. This study seeks to address this gap by situating Kerala as a microcosm of global migration dynamics, thereby contributing both empirically and conceptually to the evolving field of migration and social innovation [7].

3. Methodology

This study adopts a mixed-method secondary data analysis approach, anchored in the tradition of innovative social science inquiry that emphasizes data triangulation and contextual interpretation (Bryman, 2016). Secondary datasets, such as the Kerala Migration Survey 2023, the Kerala Economic Review 2023, Ministry of Education reports, and international datasets from UNESCO and OECD, form the empirical basis of the analysis [8].

To enhance explanatory power, the study integrates:

- **Comparative trend analysis –** tracking student migration across districts in Kerala and linking it with international destinations.
- **Gendered analysis –** examining how male and female migration patterns diverge, in line with intersectional frameworks in migration studies (Kofman, 2020).
- **Econometric modelling –** regression techniques are employed to test the association between local job-seeking trends and international student migration, extending beyond descriptive statistics to causal inference.
- **Innovative interpretive framework –** the study applies a push–pull–network model of migration updated with innovation-driven social science perspectives (Carling & Collins, 2018), recognizing how digital connectivity, global policy shifts, and educational innovations shape migration choices.

This methodological design moves beyond traditional descriptive migration studies by embedding Kerala's experience into a globally comparative, innovation-centred social science framework [9].

4. Data Analysis

4.1. Trends in Student Migration

Migration for higher education from Kerala shows an exponential rise from approximately 14,000 students in 2013 to nearly 250,000 in 2023 (Kerala Migration Survey, 2023). This surge is not merely numerical but also qualitative, reflecting changing aspirations, digital access to global opportunities, and the commodification of higher education (Altbach & de Wit, 2021). Figure 2 illustrates this dramatic rise, signalling that international education has become a structural component of Kerala's youth transition to adulthood [10].

Figure 2 Migration from Kerala for Higher Education
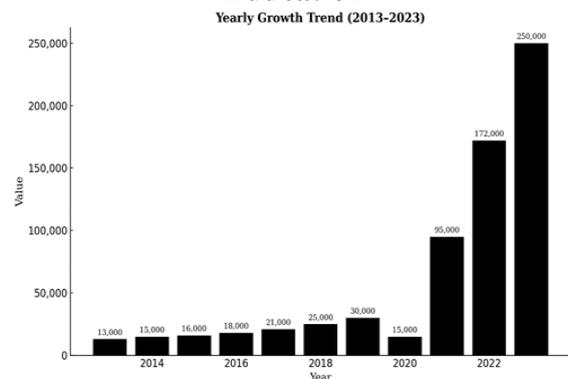
Source: Kerala Migration Survey 2023

4.2. Regional Disparities

Table 2 reveals strong district-level differentials. Ernakulam (18.1%), Thrissur (14.7%), and Kottayam (14.5%) dominate student emigration. These districts benefit from stronger academic ecosystems, higher private schooling penetration, and established migrant networks abroad (Rajan & Zachariah, 2023). Conversely, districts like Wayanad and Kasaragod lag behind, highlighting spatial inequality in access to global educational mobility [11].

Table 2 International Student Migration by District, 2023

District	Emigrant Students	Percent
Thiruvananthapuram	4,887	2.0
Kollam	21,607	8.9
Pathanamthitta	10,466	4.3
Alappuzha	14,217	5.8
Kottayam	35,382	14.5
Idukki	6,946	2.9
Ernakulam	43,990	18.1
Thrissur	35,873	14.7
Palakkad	13,692	5.6
Malappuram	15,310	6.3
Kozhikode	15,980	6.6
Wayanad	3,750	1.5
Kannur	23,512	9.7
Kasaragod	4,391	1.8
Total	**250,002**	**100.0**

Source: Kerala Migration Report 2023

4.3. Gendered Patterns and Destination Choices

The Kerala Economic Review (2023) data underscores emerging gender differences. Female students show higher preferences for the UK and nursing-related destinations, while male students dominate migration to Canada and GCC countries. This aligns with global literature on gendered migration strategies, where women's migration is increasingly shaped by professional niches in health and care sectors (King & Lulle, 2020).

4.4. Labour Market Pressures and Migration.

Table 3 shows persistently high levels of job seeking, particularly among women (63.9% in 2023). Regression analysis (Table 4) confirms a significant positive relationship between local unemployment and international student migration ($p < 0.01$, $R^2 = 0.94$). This indicates that Kerala's outmigration is not merely a cultural trend but a structural response to constrained domestic labour absorption.

Table 3 Job seekers in Kerala, 2013–2023

Year	Men (Percent)	Women (Percent)	Total
2013	1,481,773 (39.7)	2,247,353 (60.2)	3,729,126
2014	1,481,593 (40.9)	2,139,087 (59.0)	3,620,680
2015	1,434,319 (40.1)	2,059,503 (58.9)	3,493,822
2016	1,340,704 (37.7)	2,218,694 (62.3)	3,559,398
2017	1,293,699 (36.9)	2,209,066 (63.0)	3,502,765
2018	1,297,512 (36.4)	2,263,584 (63.6)	3,561,096
2019	1,278,483 (36.3)	2,243,302 (63.7)	3,521,785
2020	1,250,388 (36.4)	2,180,777 (63.6)	3,431,165
2021	1,416,133 (36.9)	2,416,955 (63.1)	3,833,088
2022	1,034,530 (36.4)	1,805,974 (63.6)	2,840,504
2023	1,034,734 (36.1)	1,828,736 (63.9)	2,863,470

Source: Economic Review 2023

5. Discussion

5.1. Migration as a Response to Innovation Gaps in Kerala's Economy

The regression results reinforce the labour market evidence presented above. Persistently high levels of job seeking translate into statistically significant increases in student migration for higher education. With a coefficient of approximately 0.20 ($p < 0.01$, $R^2 = 0.94$), the analysis indicates that each rise in registered job seekers is closely mirrored by a surge in student outflows, underscoring migration's structural embeddedness in Kerala's development trajectory. This relationship highlights a deeper innovation gap in Kerala's economy. Despite remarkable achievements in literacy and higher education, the absence of dynamic knowledge-intensive industries, weak industrial diversification, and limited private-sector absorption capacity restrict meaningful opportunities at home (Krishnan & Das, 2021; Nair & Menon, 2023). In this context, international higher education emerges as a proxy innovation pathway, enabling youth to access skills, networks, and opportunities that remain inaccessible locally. Migration thus functions simultaneously as a push mechanism, driven by labour market stagnation, and a strategic adaptation, where families and students invest in global education to overcome systemic innovation deficits (Rajan & Zachariah, 2023) Shown in Table 5.

Table 4 Regression results of migration from Kerala for higher education

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant (C)	750,642.0	173,717.9	4.3210	0.0019
Jobseekers	0.1998	0.0502	3.9831	0.0032

Table 5 Model diagnostics

Statistic	Value	Statistic	Value
R-squared	0.9380	**Mean dependent var**	61,342.55
Adjusted R-squared	0.9078	**S.D. dependent var**	79,234.01
S.E. of regression	50,247.75	**Akaike info criterion**	24.6503
Sum squared resid	2.27E+10	**Schwarz criterion**	24.7226
Log likelihood	–133.5766	**Hannan–Quinn criter.**	24.6047
F-statistic	15.8651	**Durbin–Watson stat**	2.1603
Prob(F-statistic)	0.0032		

Source: Computation by author

5.2. Innovations in Social Sciences: Rethinking Migration Studies

Traditional migration studies often frame mobility in binary terms: stay or leave. This paper advances more nuanced understandings by reframing migration as an innovation process with multiple dimensions:

- **Social innovation:** Migration is not only economic mobility but also a strategy of households and communities to reconfigure opportunities, redistribute risks, and sustain livelihoods (Castles, 2021).
- **Educational innovation:** Global universities operate as alternative "labour markets," offering pathways that Kerala's domestic system fails to provide. This redefinition positions education abroad as both consumption and investment.
- **Gendered innovation:** Women increasingly leverage migration as empowerment, despite structural constraints, thereby reshaping Kerala's gender order (Sasikumar, 2022).

Seen in this light, migration is less an aberration than a creative adaptation to structural limitations, illustrating how households innovate socially and educationally in response to systemic gaps.

5.3. Policy Implications: From Brain Drain to Brain Circulation

The sharp increase in student migration risks intensifying Kerala's "brain drain." However, global scholarship emphasizes brain circulation – where returning migrants and diaspora linkages can stimulate innovation ecosystems back home (Chen & Koyama, 2022). Kerala can leverage this by:

- Establishing returnee knowledge networks, linking migrant alumni to local universities.
- Promoting public–private partnerships that create innovation-led industries capable of absorbing skilled returnees.
- Integrating gender-sensitive policies, especially targeting women graduates whose local employability remains underutilized.

5.4. Theoretical Contribution: An Explanatory Model

This model reframes migration from Kerala as both a symptom of structural deficiencies and a catalyst for social innovation, aligning the study with the conference's broader theme of innovations in social sciences. This study proposes a Migration-Innovation Nexus Model. Figure 3 illustrates this model, which integrates traditional migration theories with contemporary social science perspectives. The model highlights four interconnected domains

- **Core Idea:** Migration is not just "loss" but part of an innovation cycle.
- **Four Nodes connected in a cycle:** Arrows show that migration emerges from push–pull–network factors, but in turn feeds back into innovation through knowledge and remittances.
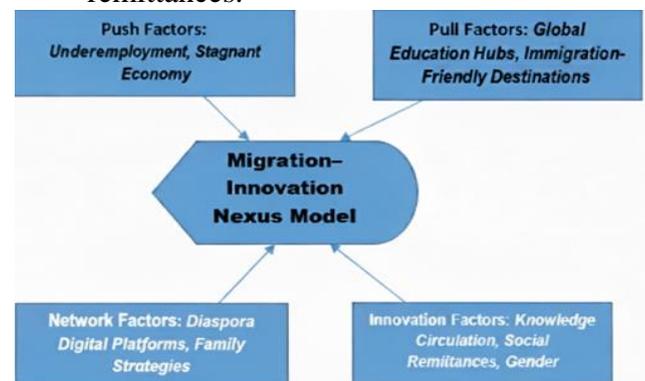

Figure 3 Migration-Innovation Nexus Model

- **Push Factors –** High unemployment, underemployment, and lack of industry–education alignment in Kerala drive young people to seek opportunities abroad. These structural deficiencies form the primary triggers for migration.
- **Pull Factors –** Higher wages, better living standards, and opportunities for upward mobility abroad attract youth. Remittances reinforce the desirability of migration, sustaining a culture of mobility across generations.
- **Social Networks & Aspirations –** Migration: Family expectations, peer influence, and community networks that facilitate the movement of youth and shape aspirational benchmarks mediated by social networks and aspirations.
- **Social Science Innovations –** Instead of treating migration solely as an economic inevitability, the model introduces the role of

innovative policy and social science interventions. This includes:

- Skill ecosystems that align education with labour market needs,
- Data-driven governance that tracks and manages migration trends,
- Participatory youth engagement models that give young people a voice in shaping employment and education strategies.

By combining these dimensions, the framework positions migration not only as a socio-economic challenge but also as an arena for policy and institutional innovation. This approach shifts the discourse from reactive management of outmigration to proactive transformation of Kerala's economy and society.

Conclusion

Youth mobility in Kerala is not a fleeting movement or a simple labour market response, but rather a structural adaptation to persistent economic and innovation divides. The study links Kerala's development model with international student mobility, highlighting unemployment — especially among women — as a primary catalyst. However, this research reframes migration as a chance for brain circulation, where the networks, knowledge, and skills of migrants can be used for local renovation, rather than just as "brain drain." Push and pull factors, migrant networks, and social innovation interact dynamically to shape mobility patterns. The proposed Migration–Innovation Nexus Model reframes migration governance by advocating:

- Strengthened skill ecosystems that align educational outcomes with labour market demands
- Gender-responsive interventions that reduce women's unemployment and enhance their economic participation
- Structured returnee knowledge networks that channel diaspora expertise into local innovation capacity, and
- Advanced, data-driven forecasting systems to anticipate, plan for, and strategically manage future migration flows.

Kerala stands at a critical moment to shift from reactive outmigration management to a proactive approach that entrenches migration research within a social innovation framework. This transformation can harness mobility as a driver of resilience and inclusive growth. Ultimately, it situates Kerala to leverage migration as a powerful catalyst for sustainable and future-ready development.

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