

Gender-wise Trends and Dynamics of Sri Lankan Foreign Employment Departures (1986–2023)

Kasuni Chathurika Abiththa Godage^{1*}, Kanthi Manel Deerasinha Pathirana¹

¹Department of Social Statistics, University of Sri Jayewardenepura, Nugegoda, Sri Lanka.

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Abstract: This study examines the long-term trends and statistical relationships in gender-wise foreign employment departures from Sri Lanka between 1986 and 2023. Using secondary data from the Sri Lanka Bureau of Foreign Employment (SLBFE) and Central Bank of Sri Lanka (CBSL), the analysis applies descriptive statistics, cointegration testing, and the Vector Error Correction Model (VECM) to explore short- and long-run dynamics between male and female departures. Results indicate a structural transformation in migration patterns: while female workers, particularly in domestic roles, dominated departures during the 1990s, male departures have surpassed female departures since the mid-2010s, largely due to policy interventions, changing labor market demands, and socio-economic shifts. VECM results confirm a long-run equilibrium relationship between male and female departures, with significant short-run adjustments reflecting responses to domestic and international labor market conditions. The findings provide policy insights to enhance gender equity in migration, improve skills development, and safeguard vulnerable groups.

Keywords: Foreign Employment, Gender, Labor Migration, VECM, Sri Lanka

INTRODUCTION

Foreign employment has been a key contributor to Sri Lanka's economy, generating substantial remittances and offering livelihood opportunities for hundreds of thousands of households annually. Since the liberalization of the economy in the late 1970s,

the Sri Lankan government has actively promoted labor migration, with the Middle East as the primary destination. Gender has historically been a defining feature of this migration: in the early years, women predominantly employed as domestic workers formed most departures. Over the past two decades, however, the gender composition has shifted. Male workers now dominate, primarily in skilled and semi-skilled occupations such as construction, transport, and manufacturing. This transition has been shaped by multiple factors, including protective policies for female domestic workers, global labor demand fluctuations, and domestic economic pressures.

This paper focuses on the period 1986–2023, aiming to:

1. Examine the trends and patterns of male and female foreign employment departures.
2. Model the statistical relationships between male and female departures using VECM.
3. Interpret the policy implications of these gendered migration patterns.

METHODOLOGY

A. Data Sources

This study is based entirely on secondary data covering the period 1986–2023. The primary data source is the Annual Statistical Reports of the Sri Lanka Bureau of Foreign Employment (SLBFE), which provide gender-disaggregated figures for annual foreign employment departures.

*Corresponding author. E-mail address: k.chathirika213@gmail.com (Kasuni Chathurika)

These statistics are considered the most comprehensive national record of labor migration, as all legal departures for overseas employment are required to be registered with the SLBFE.

To ensure accuracy and consistency, the SLBFE data were cross verified with corresponding figures from the Annual Reports of the Central Bank of Sri Lanka (CBSL). Where discrepancies were observed, the SLBFE statistics were prioritized due to their role as the principal registration authority, while CBSL data served as a validation reference. This dual-source verification process minimized the risk of data entry errors, missing records, or inconsistencies caused by subsequent revisions.

The dataset consists of two time series variables:

- MALE: Annual number of male foreign employment departures.
- FEMALE: Annual number of female foreign employment departures.

Both are measured in absolute numbers for each year and cover 38 observations per variable.

B. Literature Context on Male and Female Departures

Gender has historically played a defining role in Sri Lanka's foreign employment sector. According to Sri Lankan international labor migration initially emerged in the late 1970s with a predominance of female workers, particularly those engaged in domestic service in the Middle East [1]. This trend was driven by high demand for household workers, relatively low entry requirements, and the attractiveness of overseas earnings compared to local wages.

However, as documented by the International Labour Organization [2] a structural shift began in the mid-2000s. Factors contributing to this change include,

- Protective regulations restricting the migration of women under certain ages or without adequate safeguards.
- Increased demand for male labor in sectors such as construction, manufacturing, and transport in Gulf and East Asian economies.
- Skills diversification programs encouraging male participation in foreign employment.

By the mid-2010s, male departures had overtaken female departures in absolute terms, reflecting broader global labor market trends and national policy adjustments. This transformation underscores the need for statistical analysis to understand the interdependence of male and female migration patterns over time.

C. Statistical Tools and Software

Two main software packages were used in the analysis:

1. **Microsoft Excel** - Employed for the initial descriptive analysis, including the creation of plots in a time series, summary statistics, and percentage share calculations. Excel was also used for preliminary data cleaning, consistency checks, and visual presentation of trends.
2. **EViews (Econometric Views)** - Used for advanced statistical modeling and econometric analysis. All econometric tests, transformations, cointegration analyses, and the estimation of the Vector Error Correction Model (VECM) were performed in EViews due to its suitability for time series analysis and cointegration frameworks.

D. Econometric Approach

1) Stationarity Testing

Time series econometrics requires that the statistical properties of the data (mean, variance, autocorrelation) remain constant over time. To assess this property, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests were applied to both MALE and FEMALE series.

The results indicated that both variables were non-stationary in levels but became stationary after first difference. Therefore, the transformation applied was:

$$\Delta \text{MALE}_t = \text{MALE}_t - \text{MALE}_{t-1}$$

$$\Delta \text{FEMALE}_t = \text{FEMALE}_t - \text{FEMALE}_{t-1}$$

This ensured that the series met the integration order requirement (I (1)) for cointegration testing and VECM estimation.

2) Cointegration Testing

Given the I (1) nature of both variables, the Johansen cointegration test was conducted to determine the existence of a long-run equilibrium relationship. Both the trace and maximum eigenvalue statistics were evaluated at the 5% significance level, and the optimal lag length was selected using the Akaike Information Criterion (AIC) and Schwarz Bayesian Criterion (SBC).

3) Vector Error Correction Model (VECM)

The Johansen test indicated one cointegrating equation between male and female departures, supporting the use of a VECM framework to capture both short-run dynamics and the long-run equilibrium relationship. The normalized cointegrating equation (on $\Delta FEMALE$) is,

$$CointEq1_{t-1} = D1FEMALE_{t-1} + 3.2768D1MALE_{t-1} - 19896.1$$

Estimated VECM equations,

1. Female departures equation

$$\Delta D1FEMALE_t = -0.2496ECT_{t-1} - 0.3625\Delta D1FEMALE_{t-1} + 0.7380\Delta D1MALE_{t-1}$$

2. Male departures equation

$$\Delta D1MALE_t = -0.4303ECT_{t-1} + 0.3067\Delta D1FEMALE_{t-1} + 0.4919\Delta D1MALE_{t-1}$$

Where ECT_{t-1} is the error correction term representing deviations from the long-run equilibrium. The negative and statistically significant coefficients on the error correction terms (-0.2496 for FEMALE, -0.4303 for MALE) indicate that both series adjust towards long-run equilibrium, with male departures showing a faster adjustment speed. In the short run, increases in male departures significantly influence female departures (coefficient = 0.7380), while the reverse effect is weaker.

RESULTS AND FINDINGS

A. Descriptive Analysis of Gender-wise Departures

The analysis of foreign employment departures by gender from 1986 to 2023 reveals notable shifts in the composition of Sri Lanka's migrant workforce. In the

late 1980s and throughout the 1990s, female departures consistently outnumbered male departures, largely due to the high demand for domestic workers in the Middle East. Women, particularly those from rural and lower-income households, viewed foreign employment as a viable path to supplement household income, and destination countries such as Saudi Arabia, Kuwait, and the United Arab Emirates actively recruited female domestic workers.

From the early 2000s onward, a gradual but significant reversal occurred. Male departures began to rise steadily, overtaking female departures around the mid-2000s. By the 2010s, the gap widened, with males becoming the dominant group in Sri Lanka's foreign employment market. This shift was driven by a combination of factors:

- Government policy changes imposing minimum age and family care requirements for female migrants.
- Expansion of foreign job opportunities for men in construction, manufacturing, and transport sectors, particularly in the Gulf and East Asian economies.
- Skill development initiatives aimed at improving the employability of male workers for skilled and semi-skilled positions abroad.

The COVID-19 pandemic in 2020 led to a temporary decline in both male and female departures due to travel restrictions and reduced overseas recruitment. However, recovery was evident from 2021 onwards, with male departures rebounding more sharply than female departures.

A. Stationarity and Cointegration Results

Unit root tests (ADF and PP) confirmed that both MALE and FEMALE series were non-stationary in their original levels but became stationary after first differencing, meaning both variables are integrated of order one, I (1).

Johansen's cointegration test identified one cointegrating vector between male and female departures, indicating the presence of a stable long-run relationship between the two series despite short-term fluctuations.

B. Vector Error Correction Model (VECM) Results

1) Long-run Relationship

The normalized cointegrating equation is given by,

$$CointEq1_{t-1} = D1FEMALE_{t-1} + 3.2767D1MALE_{t-1} - 19896.19$$

The positive coefficient on male departures (3.2768) implies that, in the long run, increases in male departures are associated with corresponding increases in female departures. This reflects a structural linkage in labor migration patterns, where economic and policy factors influencing one gender often spill over to the other.

2) Short-run Dynamics

The estimated short-run VECM equations are,

Female departures equation

$$\Delta D1FEMALE_t = -0.2496ECT_{t-1} - 0.3625\Delta D1FEMALE_{t-1} + 0.7380\Delta D1MALE_{t-1} - 1241.98$$

Male departures equation

$$\Delta D1MALE_t = -0.4303ECT_{t-1} + 0.3067\Delta D1FEMALE_{t-1} + 0.4919\Delta D1MALE_{t-1} - 2791.69$$

The error correction terms (−0.2496 for FEMALE, −0.4303 for MALE) are negative and statistically significant, confirming that both series adjust towards the long-run equilibrium after short-term deviations. Male departures adjust faster to equilibrium compared to female departures.

D. Interpretation of Short-run Effects

- The coefficient of **0.7380** in the FEMALE equation means that a one-unit increase in male departures in the previous period leads to a 0.738-unit increase in female departures in the current period, holding other factors constant.
- Conversely, the coefficient of **0.3067** in the MALE equation indicates that a one-unit increase in female departures in the previous period increases male departures by only 0.3067 units.

This asymmetry confirms that the short-run effect from male departures to female departures is stronger, while the reverse effect is positive but weaker.

From a practical standpoint, this suggests that changes in male migration perhaps driven by demand surges in

male-dominated industries tend to influence female migration more strongly than the reverse. This could be due to family-linked migration decisions, shared recruitment networks, or similar economic drivers affecting entire communities.

E. Policy and Practical Implications

The results highlight the interconnected nature of male and female foreign employment departures. Policymakers should note that measures targeting one gender such as training programs, migration policy changes, or bilateral labor agreements may have spillover effects on the other.

Given the stronger short-run influence of male migration on female migration, policies boosting male employment opportunities abroad could indirectly stimulate female migration. Conversely, restrictive measures on female migration may not substantially affect male migration volumes in the short term but could influence them over a longer horizon through household-level economic impacts.

DISCUSSION

The results of this study confirm that male and female foreign employment departures in Sri Lanka are statistically interconnected both in the short run and in the long run. This is consistent with prior research emphasizing the gendered dynamics of Sri Lanka's migration flows. Female migration dominated the outflow in the 1980s and 1990s due to demand for domestic workers in the Middle East [1]. However, later policy restrictions imposed in the 2000s, combined with growing overseas demand for male workers in construction and technical sectors, shifted the balance in favor of male migration [2], [3].

The stronger short-run effect from male to female departures observed in the VECM suggests that male migration creates enabling conditions for female migration within households and communities. Migration decisions in Sri Lanka are rarely individual but rather collective, shaped by household strategies to diversify risk and maximize remittance inflows [4]. When men migrate first, the remittances and networks they establish reduce the financial and informational barriers for women to migrate subsequently [5].

Male migration often acts as a catalyst for female family members to follow, particularly when the initial migration creates a stable support system abroad [6].

By contrast, the reverse effect from female to male departures is positive but weaker. This may reflect the structural segmentation of Sri Lanka's overseas labor market, where women's migration has been concentrated in domestic and caregiving roles with relatively lower wages compared to male-dominated occupations in construction, driving, and skilled trades [7]. The lower remittance potential from female migrants limits the capacity of households to finance additional male migrations [8]. Furthermore, social norms and family responsibilities mean that female migration does not carry the same "demonstration effect" for male relatives as male migration does for females [9].

The long-run positive cointegration between male and female departures highlights that both genders are influenced by common macroeconomic and policy factors. Bilateral labor agreements with Middle Eastern countries, foreign exchange crises in Sri Lanka, and global demand cycles affect the overall flow of migrants irrespective of gender [10], [11]. This supports the notion that while the immediate drivers of male and female migration differ, the broader structural forces binding them together are similar.

The findings also carry significant policy implications. The strong male-to-female linkage suggests that interventions targeting male employment abroad—such as skills training, language programs, or agreements for construction and technical jobs—could indirectly stimulate female migration as well. However, policies that restrict female migration, such as minimum-age requirements or mandatory family care provisions, may not substantially reduce male migration flows in the short run but could indirectly weaken female migration through long-run household effects [12]. This reinforces the need for gender-sensitive migration policies that recognize interdependencies rather than treating male and female flows as isolated phenomena [13].

From a developmental perspective, the reliance on male-dominated foreign employment has created vulnerabilities. Male migration is closely tied to cyclical demand in Gulf construction, leaving Sri Lanka exposed to external shocks. Overdependence on low- and semi-skilled male migration can limit the potential for long-term gains from remittances [1]. Strengthening female participation through safe migration pathways and skill diversification could provide a more balanced and sustainable migration portfolio [14].

Nevertheless, this study has limitations. The analysis is based on aggregate annual data, which masks intra-year variations and micro-level decision-making processes. Individual-level factors such as education, household composition, or recruitment practices were not captured in the VECM framework. Future studies could extend this analysis using household survey data or panel methods to examine how intra-household bargaining power, remittance use, and social networks mediate gendered migration flows. In addition, incorporating external variables such as unemployment rates, wage differentials, or policy shocks could enrich the understanding of causality.

In summary, Sri Lanka's male and female foreign employment flows are deeply interconnected. The stronger influence of male migration on female migration reflects household dynamics, financial enablers, and the relative wage advantages of male-dominated sectors. The long-run linkages suggest that both genders remain sensitive to macroeconomic and policy conditions. These findings reinforce the importance of designing migration policies that are both gender-sensitive and holistic, recognizing that interventions aimed at one group will inevitably have ripple effects on the other.

F. Forecast of Foreign Employment Departures by Gender (2024–2028)

Five-year projections of Sri Lanka's foreign employment departures, broken down by male and female workers, were produced using the gender-wise Vector Error Correction Model (VECM). The model's strength is its capacity to represent the long-term equilibrium relationships between the two gendered flows as well as the short-term adjustments. The forecasts offer practical, policy-relevant insights by first applying first-differenced data to achieve stationarity and then re-transforming the results into their original scale using the observed 2023 values as a benchmark.

The projections show different but related trends for male and female departures from 2024 to 2028. The pattern for male departures is defined by a sharp decrease in 2024, from 164,603.77 in 2023 to 89,921.76. Possible short-term external shocks, like tightening labor demand in Middle Eastern construction markets or changes in domestic policy regarding hiring procedures, could account for this immediate contraction. However, the recovery trajectory starts in 2025, when male departures increase to 102,602.57. It then strengthens significantly in 2026, reaching a predicted peak of

156,151.05. This recovery is consistent with past data showing that cyclical demand for technical, construction, and transportation jobs overseas is strongly linked to male migration flows. The following years exhibit a slight decrease, falling to 111,445.51 in 2027 from 149,436.99 in 2027. A slight decrease in subsequent years-149,436.99 in 2027 and even lower to 111,445.51 in 2028-indicates that although male departures will bounce back nicely, they will still be susceptible to cyclical slowdowns and changes in global demand.

Female foreign employment departures follow a different but equally significant trajectory. From the observed 133,052.23 in 2023, female departures are projected to decrease to 94,482.67 in 2024, mirroring the initial contraction seen in male migration. However, unlike the sharp bounce observed for men, the female trend is more gradual but sustained. Female departures climb to 109,289.12 in 2025, then increase considerably to 158,517 in 2026, and peak at 172,831.59 in 2027 before slightly declining to 161,206.88 in 2028. These projections emphasize the resilience of female migration, particularly in caregiving and domestic work sectors, which tend to have more stable long-term demand compared to male-dominated sectors that are highly sensitive to oil prices and infrastructure investment cycles in destination countries.

Table 1: Male and Female forecast data

Year	Male Forecast	Female Forecast
2024	89,922	94,483
2025	102,603	109,289
2026	156,151	158,517
2027	149,437	172,832
2028	111,446	161,207

The comparative analysis of forecasts suggests that while male migration dominates during cyclical upswings (such as the strong 2026 rebound), female migration demonstrates more consistent growth, peaking higher than male departures in 2027. This shift is crucial for understanding the evolving gender balance in Sri Lanka's foreign employment. For decades, female migration was constrained by regulatory measures such as age restrictions and family-responsibility-based exit rules. However, the forecast suggests that female participation is set to re-emerge as a central feature of labor outflows in the mid-term.

These projections have important implications for policymakers. First, the forecasted contraction in 2024 highlights the need for immediate measures to mitigate potential income and remittance shocks. Since remittances form a significant share of Sri Lanka's foreign exchange inflows, ensuring a safety net during periods of reduced migration is vital for macroeconomic stability. Second, the robust mid-term growth in female departures underscores the need for gender-responsive migration policies. As the forecast shows, women will constitute a major share of the migrant workforce from 2025 onwards, peaking in 2027. Thus, policy interventions such as expanding pre-departure training for domestic and caregiving work, enhancing protections through bilateral labor agreements, and strengthening social security mechanisms for female workers abroad are essential.

Additionally, the cyclical nature of male migration, with strong surges followed by downturns, calls for strategies that diversify male workers into more stable, higher-skilled labor markets. Investment in technical and vocational training could open opportunities beyond the Middle Eastern construction sector, including healthcare, ICT, and logistics, where demand is less volatile.

The forecasts also suggest that by 2027–2028, female migration will not only rival but may surpass male migration in significance. This trend reinforces the need to reframe migration policy debates in Sri Lanka. Historically, female migration has been viewed primarily through a lens of protectionism due to social costs such as family separation and risks of exploitation. However, the data now point toward female migration being an unavoidable and critical driver of household incomes and national remittances. Therefore, rather than restrictive policies, a balanced approach that combines protection with empowerment will be required.

In conclusion, the forecasts from the VECM model provide a forward-looking picture of Sri Lanka's gender-wise labor migration. Male departures will continue to fluctuate, reflecting their vulnerability to cyclical economic factors, while female departures are projected to demonstrate stronger resilience and growth in the medium term. These findings highlight the importance of adopting gender-inclusive migration strategies that prepare both men and women for changing patterns of global labor demand, ensuring Sri Lanka maximizes the developmental benefits of its migrant workforce in the years ahead.

CONCLUSION

The study concluded that foreign employment departures in Sri Lanka are driven by complex interrelations between male and female migrants. The presence of cointegrated relationships confirms that these variables are not independent but rather evolve together over time. The significant adjustment coefficients in the VECM confirm the existence of mechanisms that restore equilibrium when deviations occur. In this study both male and female labor outflows respond significantly to past deviations from the long run path.

The successful application of the VECM model in this research confirms its effectiveness in capturing short run dynamics and long-run relationships in time series data. The forecasting results, translated into original values, provide a realistic picture of likely future trends, making the findings relevant for forward planning.

RECOMMENDATIONS

Based on the research findings, it is recommended that policymakers adopt Gender specific strategies that address the unique trends and fluctuations observed in each category. Ensuring the safety, welfare, and empowerment of female migrant workers should be a top priority. Mechanisms such as pre-departure training, legal support systems, and bilateral labor agreements with host countries must be strengthened. Institutional coordination between ministries handling labor, migration, and skills development should be improved to align policy with observed labor market dynamics.

Suggestions for Future Research

To extend the scope of this research, future studies can integrate macroeconomic variables such as GDP growth, exchange rates, inflation, and foreign labor demand to better explain fluctuations in foreign employment. A regional or district level analysis using panel data techniques can provide more localized insights. Incorporating qualitative research elements such as interviews with returnee migrants, assessments of remittance usage, and migrant household case studies can add valuable context to quantitative findings. Comparative studies across South Asian countries may also yield broader policy lessons applicable to regional labor migration patterns.

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