



## LABOUR MIGRATION AS A HOUSEHOLD STRATEGY: EVIDENCE FROM INDUSTRIAL WORKERS IN ROURKELA, ODISHA

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### ABSTRACT

*Labour migration is an important socio-economic process in India, particularly in industrial regions that attract workers from less developed areas. This study examines the determinants of the decision to migrate and the remittance patterns of industrial labourers, with special reference to Rourkela, Odisha. The main objectives of the study are to identify the factors influencing the decision to migrate and to analyse the factors affecting the amount of remittances sent by migrant labourers to their households.*

*The study is based on primary data collected from migrant industrial labourers working in different industrial establishments in Rourkela, supported by relevant secondary sources. Descriptive and econometric tools are used to examine the relationship between migration, income, employment conditions, household characteristics, and remittance behaviour. The findings indicate that poverty, employment insecurity, wage differentials, and social networks significantly influence migration decisions. Further, remittance amounts are primarily determined by income, household dependency at the place of origin, and household size at the destination. The study highlights the role of migration and remittances in improving household welfare and provides insights for labour and migration policy formulation.*



**KEYWORDS:** Migration, , Monthly Average Remittance, New Economics of Labour Migration.

### 1. INTRODUCTION

Migration has emerged as a central feature of socio-economic transformation in developing economies. It involves the temporary or permanent movement of individuals across geographical regions and is broadly categorized into internal and international migration. In India, internal labour migration occupies a critical position due to its close linkage with employment generation, urban expansion, and regional development (Zohry, 2005).

The relationship between migration and economic development is dynamic and mutually reinforcing. Migration facilitates labour reallocation, income generation, and productivity gains, while economic development lowers migration costs through improved infrastructure, information access, and connectivity (Chakraborty, 2014; Castles, 2009). Classical migration theories identify income and wage differentials as the primary drivers of population movement from low-income to high-income regions (Harris & Todaro, 1970). Recent research emphasises employment insecurity, informality, social networks, and spatial inequalities as central to contemporary migration decisions in contemporary labour markets (Srivastava, 2020; Deshingkar & Akter, 2021).

Remittances constitute the principal economic return to migration and represent a vital source of household income in migrant-sending regions. Evidence consistently shows that remittances enhance household welfare, stimulate economic growth, and contribute to poverty reduction (Parida,

2015; Chowdhury, 2016; Ratha et al., 2021). Remittance behaviour is shaped by altruistic motives, self-interest, and implicit household contracts (Arun & Ulku, 2010), and varies with migrants' income, duration of stay, and household characteristics (Keshri & Bhagat, 2022).

Against this backdrop, the present study examines the determinants of migration and remittance patterns among industrial labourers in Rourkela, Odisha, providing micro-level evidence from an important industrial region.

## 2. LITERATURE REVIEW

The literature on migration has evolved from individual-centric explanations to more structurally embedded and household-based approaches. Early neoclassical models conceptualised migration as an individual decision driven by expected income and wage differentials across regions (Sjaastad 1962; Harris and Todaro 1970). These models assume rational actors who migrate to maximise lifetime earnings. While influential, such approaches have been criticised for overlooking institutional constraints, labour market segmentation, and household strategies that characterise migration in developing economies.

The New Economics of Labour Migration (NELM) marked a significant departure by situating migration decisions within the household context. Stark and Bloom (1985) argue that migration is a risk-diversification strategy adopted by households facing imperfect credit, insurance, and labour markets. This framework has been widely applied to the Indian context, where migration is often circular, temporary, and embedded in household survival strategies (Srivastava 2011; Deshingkar and Akter 2021). Recent studies further highlight the role of informal employment, social networks, and regional inequalities in shaping migration flows (Castles 2009; Srivastava 2020).

Empirical research on internal labour migration in India identifies employment opportunities, wage differentials, education, household dependency ratios, and social networks as key determinants (Kundu and Sarangi 2007; Bhagat 2016). Industrial and construction sectors have emerged as major pull factors for migrant labour, particularly for low- and semi-skilled workers (Srivastava 2011). Gendered patterns of migration remain pronounced, with male migration largely employment-driven and female migration predominantly associated with marriage (Bhagat and Mohanty 2009; NSS 2010).

Remittances constitute a central outcome of migration and play a significant role in household livelihoods. Micro-level studies suggest that remittances contribute to consumption smoothing, human capital formation, and asset accumulation (Adams and Cuecuecha 2013; Parida 2015). At the macro level, remittances have been shown to promote economic growth and reduce poverty and inequality in developing countries (Chowdhury 2016; Ratha et al 2021). In India, NSS data reveal substantial variation in remittance behaviour across gender, income groups, and place of residence, with male and international migrants remitting higher amounts than their female and internal counterparts (NSS 2010).

The motivations underlying remittance behaviour are commonly explained through altruistic, self-interest, and contractual frameworks. Lucas and Stark (1985) emphasise altruism and family welfare, while self-interest models highlight inheritance motives, asset accumulation, and social status (Dustmann and Mestres 2010). Contractual approaches view remittances as part of implicit household agreements involving insurance, risk-sharing, and loan repayment (Arun and Ulku 2010). Recent empirical studies suggest that remittance behaviour reflects a combination of these motives and is influenced by income stability, duration of migration, household composition, and cost of living at the destination (Keshri and Bhagat 2022).

Despite a growing body of literature, region-specific micro-level studies remain limited, particularly for industrial towns in eastern India. Existing research on Odisha highlights migration as a response to poverty, agrarian distress, and limited local employment opportunities (Keshri and Bhagat 2013). However, systematic analyses linking migration decisions with remittance patterns among industrial labourers in medium-sized industrial centres such as Rourkela are scarce. This study contributes to the literature by providing micro-level evidence on the determinants of migration and remittance behaviour in an industrial labour context.

### 3. METHODOLOGY

This study examines the determinants of migration decisions and remittance behaviour among industrial migrant labourers in Rourkela, Odisha. Rourkela was purposively selected due to its industrial base and large concentration of migrant workers. In the absence of reliable district-level migration data, the analysis relies primarily on destination-based primary data, supplemented by secondary sources.

A three-stage sampling design was adopted. First, Rourkela city was selected purposively. Second, three municipal wards—Balughat, Timber Colony, and Gopabandhupalli—were selected from 32 wards based on the concentration of slum households. In the final stage, 40 migrant households were selected from each ward through simple random sampling, yielding a total sample of 129 households.

To identify the determinants of remittances, a multiple linear regression model was estimated with average monthly remittance as the dependent variable. Explanatory variables included income, age, education, household size, number of dependants at the place of origin, duration of stay, per capita consumption expenditure, and migration type, along with relevant dummy variables.

**The estimated model takes the following form:**

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 D_{1i} + \beta_9 D_{2i} + \beta_{10} D_{3i} + \beta_{11} D_{4i} + U_i$$

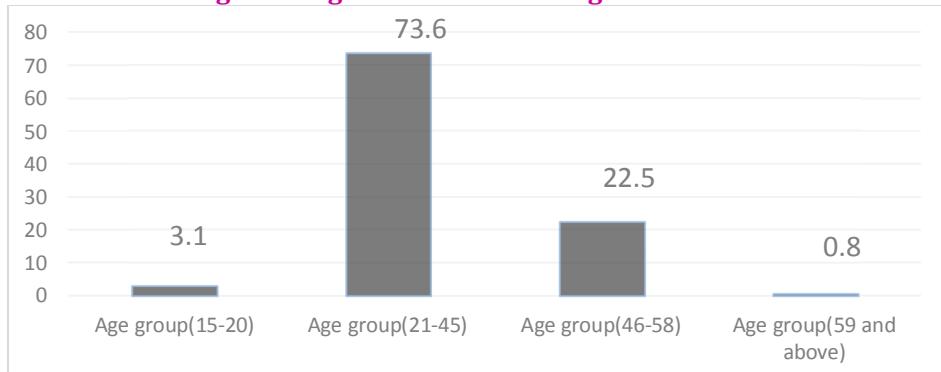
Where  $Y_i$  denotes the average monthly remittance (in rupees);  $X_1$  represents age;  $X_2$  monthly income;  $X_3$  household size;  $X_4$  number of dependants at the place of origin;  $X_5$  MPCE at origin;  $X_6$  duration of stay;  $X_7$  years of schooling;  $D_1$  inter-state migration;  $D_2$  intra-district migration;  $D_3$  marital status; and  $D_4$  household headship. The error term is captured by  $U_i$ .

Primary data were collected using a pre-tested structured schedule administered to migrant labourers. Information was gathered on socio-demographic characteristics, education, migration history, employment and earnings, migration motives, and remittance behaviour. Quantitative data were analysed using SPSS with descriptive statistics.

## 4. RESULTS

### 4.1 Demographic Features of Migrants labour

The socio-economic profile of migrant labourers in Rourkela reveals that migration is strongly concentrated among young and prime-age workers. A large majority of migrants fall within the 21–45 age group, with an average age at migration of around 20 years, indicating early entry into migratory labour markets. Older age groups, particularly women, are marginally represented, pointing to gendered and life-cycle constraints on labour mobility. Migration thus selectively draws on younger workers with higher expected labour market participation and earning potential.

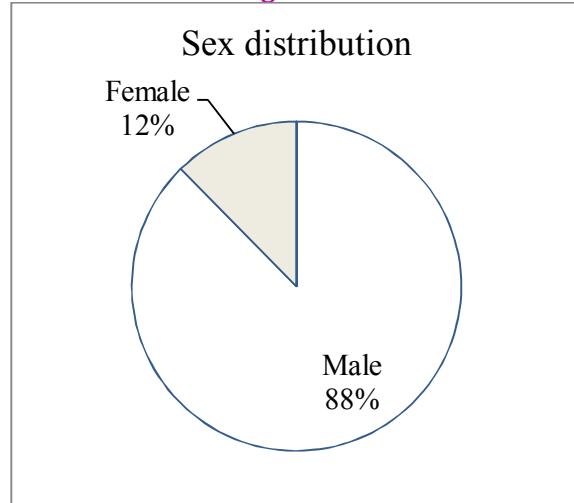
**Figure 1: Age Distribution of Migrants Labour**

Source: Primary survey

**Table 1: Sex-wise age distribution of the migrant labourers**

		Age group (15-20)	Age group (21-45)	Age group (46-58)	Age group (59 and above)	Total
MALE	Count	2	81	29	1	113
	% of Total	1.6%	62.8%	22.5%	0.8%	87.6%
FEMALE	Count	2	14	0	0	16
	% of Total	1.6%	10.9%	0.0%	0.0%	12.4%
Total	Count	4	95	29	1	129
	% of Total	3.1%	73.6%	22.5%	0.8%	100.0%

Source: Primary Survey

**Figure 2: Distribution of migrant labourers according to sex:**

**Table 2: Sex-wise education level of the migrant labourers**

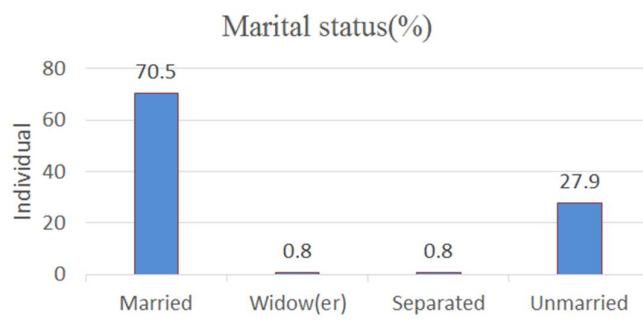
SEX OF THE LABOURERS	EDUCATION LEVEL					<b>Total</b>
	ILLITERATE	ELEMENTARY	SECONDARY	HIGHER SECONDARY	HIGHER EDUCATION	
MALE	0	32 28.3%	62 54.9%	18 15.9%	1 0.9%	113 100.0%
FEMALE	2 12.5%	5 31.2%	9 56.2%	0	0	16 100.0%
Total	2 1.6%	37 28.7%	71 55.0%	18 14.0%	1 0.8%	129 100.0%

Source: Primary Survey

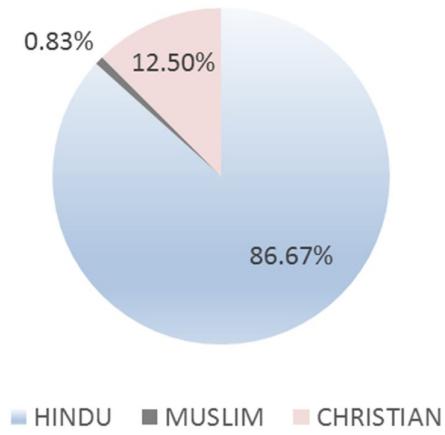
**Table 3: Distribution of Migrant labourers by Income Level**

<b>Monthly Income in Rupees</b>	<b>No. of individual</b>	<b>Percentage to total</b>
LOW INCOME GROUP(2000-5000)	10	7.8
MEDIUM INCOME GROUP(5000-8000)	39	30.2
UPPER MEDIUM GROUP(8000-11000)	75	58.1
HIGHEST INCOME GROUP(11000 and above)	5	3.9
<b>TOTAL</b>	<b>129</b>	<b>100.00</b>

Source: Field Survey

**Figure 3: Marital status of migrated labourer**

Source: Primary Survey

**Figure 4: Religion wise distribution**

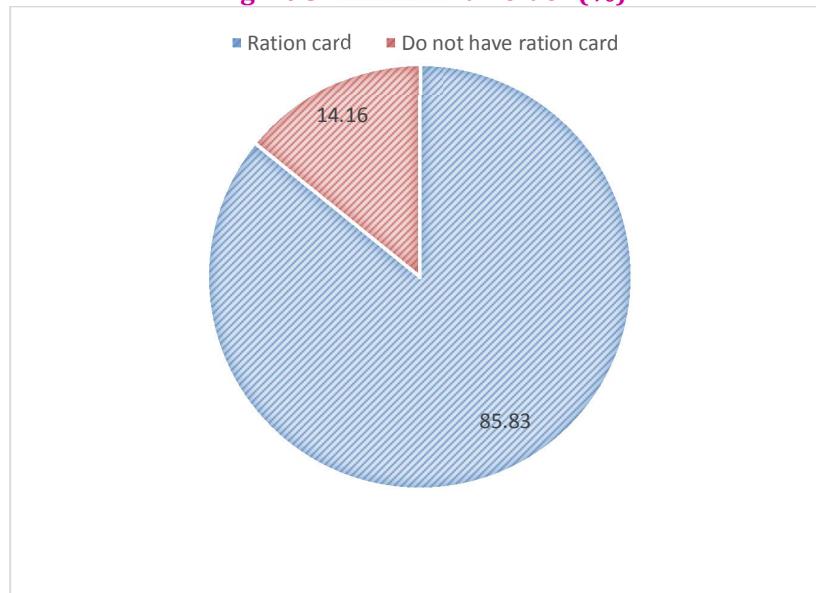
Source: Primary survey

<b>Table 4: Social category of the sample respondents</b>		
<b>Social Category</b>	<b>Number of respondents</b>	<b>Percent</b>
GENERAL	24	18.6
OBC	17	13.1
SC	36	27.9
ST	52	40.3
Total	129	100.0

Source: Primary survey

<b>Table 5: Land holding of the migrant labourers</b>	
<b>Number of respondents</b>	<b>In percent</b>
Having own agricultural land 79	61.2
Not having agricultural land 50	38.7
Total 129	100.0

**Figure 5: Ration card holder (%)**



<b>Table 6: Migrants on the basis of distance</b>		
<b>Nature of migration</b>	<b>Frequency</b>	<b>Percent</b>
Intra district	36	27.9
Inter district	69	53.4
Inter state	24	18.6
Total	129	100.0

A pronounced gender imbalance characterises migrant labour participation. While migrant households are relatively balanced by sex, migrant labourers are overwhelmingly male. Female participation is limited and largely confined to younger ages, reflecting prevailing gender norms,

occupational segregation, and the concentration of migrant employment in physically demanding industrial and informal sector jobs. Migration is therefore largely undertaken by men as primary earners, while women remain at the place of origin.

Educational attainment among migrant labourers is modest, with most workers having education up to the secondary level and very few possessing higher education. Female migrants are concentrated at lower education levels. This suggests that Rourkela's industrial labour market primarily absorbs semi-skilled labour and offers limited returns to higher education, reinforcing migration as a low-skill employment strategy rather than a pathway to human capital accumulation.

Income levels at the destination are concentrated in the 8,000–11,000 range, indicating modest income gains relative to the place of origin but limited scope for upward mobility. The majority of migrant labourers are married, implying that migration is often undertaken by household heads or primary earners who leave dependants behind. The social composition of migrants shows a predominance of Hindu labourers, with Scheduled Castes and Scheduled Tribes forming a substantial share, reflecting structural disadvantage and greater reliance on migration among marginalised groups. Most migrants possess some agricultural land at the place of origin, suggesting that migration supplements rather than replaces agrarian livelihoods. High ration card ownership further underscores economic vulnerability.

Inter-district migration dominates, followed by intra-district migration, highlighting the importance of short-distance mobility facilitated by social networks and lower migration costs. Consistent with this, economic distress emerges as the primary driver of migration. Poverty, unemployment, and lack of regular work constitute the main push factors, while higher income prospects act as key pull factors. Social networks play a critical role, with many migrants following earlier migrants, thereby reducing risks and information costs. Natural shocks play only a limited role, indicating that migration is largely structural rather than shock-induced.

#### 4.2 Factors responsible in determining migration decision

Table 7: Factors responsible for migration:

Poverty	Unemployment	Lack of full time work	Education	More income	Wage differential	Following earlier migrants	Marriage	Natural calamities
58.9%	26.4%	20.9%	6.2%	28.7%	14.7%	31%	7.8%	2.3%

Source: Primary Survey

These patterns indicate that migration in Rourkela is predominantly a response to structural economic constraints, mediated by social networks. Migration is thus largely planned and household-driven rather than shock-induced. Poverty emerges as the most significant driver, accounting for nearly 59 per cent of migration decisions, indicating persistent livelihood insecurity in source regions. Employment-related factors further shape migration behaviour: about 26 per cent of migrants reported unemployment, while 21 per cent cited the lack of full-time work as a reason for migrating. On the pull side, expectations of higher income motivated close to 29 per cent of migrants, and wage differentials between origin and destination areas influenced around 15 per cent, consistent with income-maximisation arguments in migration theory.

However, migration decisions are not driven by economic considerations alone. Social networks play a crucial enabling role, with nearly one-third of migrants reporting that they followed earlier migrants. This highlights the importance of network-based migration, where prior migrants reduce information asymmetries, entry barriers, and risks associated with relocation. Marriage accounts for a smaller share of migration (about 9 per cent), reflecting life-cycle and social factors, while natural shocks and calamities account for only a negligible proportion (around 2 per cent). Taken together,

these findings suggest that migration in the study area is largely structural and household-driven, shaped by chronic economic distress and mediated by social networks, rather than being a short-term response to environmental or transitory shocks.

#### 4.3 Econometric Estimation of factors affecting amount of remittances:

$$\text{MAR} = 1100.331 + .148 X_1 + .223 X_2 - .592 X_3 + .724 X_4 + .103 X_5 + .012 X_6 + .169 X_7 + .184 D_1 + .041 D_2 - .194 D_3 + .245 D_4$$

**Table 8: Regression output**

Dependent variable	Particulars in regression	Independent variables										
		(X <sub>1</sub> )	(X <sub>2</sub> )	(X <sub>3</sub> )	(X <sub>4</sub> )	(X <sub>5</sub> )	(X <sub>6</sub> )	(X <sub>7</sub> )	(D <sub>1</sub> )	(D <sub>2</sub> )	(D <sub>3</sub> )	(D <sub>4</sub> )
Monthly average remittance	Coefficient	.148	.223**	- .592*	.724*	.103	.012	.169	.184	.041	- .194	.245
	Intercept	1100.331										
	R square	.584										
	F value	8.047										

1% level of significance =\*

5% level of significance =\*\*

The econometric analysis of remittance behaviour supports this interpretation. The regression model is statistically significant, explaining nearly 58 per cent of the variation in average monthly remittances. The signs and significance of key variables are consistent with household-based models of migration and remittance behaviour. Monthly income at the destination has a positive and significant effect on remittance amounts, reflecting migrants' remittance capacity. The number of dependants at the place of origin also exerts a strong positive influence, underscoring the centrality of household obligations. In contrast, household size negatively affects remittances, indicating competing consumption needs at the destination. Other individual characteristics, such as age, education, duration of stay, and migration type, are not statistically significant. Overall, remittance behaviour is shaped primarily by economic capacity and household responsibilities, reinforcing the view of migration as a household-level livelihood and risk-sharing strategy.

#### 5. CONCLUSION

This paper examined the determinants of migration decisions and remittance behaviour among industrial migrant labourers in Rourkela, Odisha. Using primary data from a survey of 120 migrant labour households, supplemented by secondary sources, the analysis employed descriptive statistics and econometric methods to situate migration within a household-level decision-making framework. Rourkela was selected due to its concentration of industrial activity and sustained reliance on migrant labour, making it an appropriate site to examine labour mobility and remittance flows.

Consistent with national evidence, migration remains strongly gendered and shaped by structural constraints, with male migration driven by employment and female migration largely associated with marriage, reflecting segmented labour markets and social norms. At the national level, migration streams remain strongly gendered, with male migration dominated by rural-urban flows and female migration largely associated with rural-rural movement linked to marriage. In Odisha, male migration is predominantly urban-urban, while female migration continues to be overwhelmingly rural-rural. Census-based evidence further indicates that employment-related motives dominate male migration, whereas social factors are central to female mobility. These patterns point to the persistence of gendered labour markets and social norms governing migration.

Primary survey evidence suggests that economic distress is the principal driver of migration decisions. Poverty emerges as the most frequently reported push factor, followed by the desire to earn higher income, unemployment, lack of regular work, and wage differentials between origin and destination. These findings are consistent with the New Economics of Labour Migration (NELM), which conceptualises migration as a household response to income insecurity and imperfect labour and credit markets. Migration thus functions as a mechanism to stabilise household income rather than as an outcome of individual income maximisation.

Social networks significantly mediate migration decisions. A substantial proportion of migrants reported following earlier migrants, underscoring the role of social capital in reducing information costs, risks, and barriers to entry at the destination. In contrast, natural factors such as calamities account for only a negligible share of migration decisions, indicating that migration in the study area is largely structural and planned rather than shock-induced. This further supports a household-strategy interpretation of migration.

The socio-economic profile of migrant labourers reflects limited human capital accumulation and constrained labour market outcomes. Migrants are concentrated in the economically active age group and typically enter migratory labour circuits at an early age, indicating selective migration of young workers. Migration remains overwhelmingly male, with limited female participation in industrial employment. Educational attainment among migrants is modest, with most having education up to the secondary level, suggesting that Rourkela's industrial labour market primarily absorbs semi-skilled labour. Income levels at the destination are modest, with most migrants earning between ₹8,000 and ₹11,000 per month, indicating limited upward mobility despite income gains relative to the place of origin. Migration thus appears to operate as a livelihood-sustaining strategy rather than as a pathway to economic advancement.

The analysis of remittance behaviour further reinforces the household-centred nature of migration. The econometric results indicate that monthly income at the destination has a positive and statistically significant effect on remittance amounts, reflecting the role of earning capacity in shaping remittance flows. The number of dependants at the place of origin also exerts a strong positive influence, highlighting the importance of household obligations and dependency pressures. In contrast, household size at the destination is negatively associated with remittance amounts, reflecting competing consumption demands faced by migrants. Other individual characteristics, including age, education, duration of stay, and migration type, do not exhibit statistically significant effects. Overall, remittance behaviour is shaped primarily by household responsibilities and economic capacity rather than by individual demographic attributes, consistent with the NELM framework of intra-household risk sharing and income support.

## 6. POLICY IMPLICATIONS

The findings suggest that migration should be understood as a structural feature of uneven development rather than as a temporary or aberrant phenomenon. Policies aimed solely at restricting migration are unlikely to address its underlying causes. At the place of origin, expanding access to productive employment through the promotion of non-farm activities, skill development, and improved agricultural support remains critical. At the destination, improving access to basic services, ensuring timely wage payments, and strengthening labour protections can mitigate the vulnerabilities faced by migrant workers. Given the central role of remittances in sustaining origin households, expanding access to formal financial and remittance channels at both origin and destination can enhance financial inclusion and reduce transaction costs.

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