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EMPLOYMENT PATTERNS, LIVING CONDITIONS AND SOCIAL INTERACTIONS OF WOMEN MIGRANT WORKERS IN SALCETE TALUK OF GOA

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Abstract

This study examines the employment patterns, composition, and characteristics of women migrant workers and their challenges prevalent in the Salcete Taluk of South Goa District in the State of Goa, India. It has focused on their accommodation, income levels, and social interactions and the study utilises a mixed-method combining quantitative and qualitative data. A structured questionnaire cum schedule-based survey was administered to 380 women migrant workers in Salcete Taluk for deriving data on the variables related to employment conditions, income, accommodation and social treatment. Correlation and K-means clustering analyses were performed using statistical tools in IBM SPSS Statistics 20 and MS Excel 2019. The results reveal key relationships between working hours, income, accommodation quality, and job stability, and providing insights into employment condition's influence on living standards and social dynamics. The findings revealed that most of the women are employed in low-wage but high-demand sectors working as domestic help, unskilled or semi-skilled manufacturing workers, housemaids and helpers, making up nearly 66% of the studied workforce. A significant portion (86.5%) works in temporary or casual jobs, leading to income instability and job insecurity. Despite earning about Rs. 6,000 per month, issues like high rent, poor housing quality and lack of job stability persist. Social relations are generally respectful, but excessive working hours correlate with poorer treatment. To improve their living and working conditions, the study recommends welfare policies, insurance coverage, ESI health services, better wages, job security, subsidised housing and a positive societal outlook towards migrant workers in line with the idealistic national labour welfare framework. Implementing these measures would enhance their overall well-being to raise self-respect for the migrant female workforce in the state.

Keywords: Migrant Workers, Wages, Job Security, Social Interactions, Welfare Policies.

Introduction

Goa, a state of India is the smallest but economically prosperous state with the highest per capita income (Census of India, 2011) and offers plenty of economic

opportunities to those seeking work (Moraes, 2014). People from other states have been migrating to Goa for various job purposes since Liberation (Das et al., 2012; Radderatti et al., 2023). Migration data from Census 2011 reveals that Goa has a high inflow of population from various states with the largest numbers coming from the neighbouring states of Karnataka and Maharashtra (Fernandes et al., 2011). It has the highest proportion of migrants from other states as a percentage to total population, there by the density of population in the state increased from 364 to 394 during the decade 2001 to 2011 (Devi, 2019).

Labour migration is a significant phenomenon in India, driven by various socio-economic factors including unemployment, poverty and the pursuit of better economic opportunities and getting rid of social conflicts (Unni, 2000; Adger, 2011; Rao, 2020). In India, migration mostly takes place due to poverty, unemployment, natural calamities and underdevelopment at the origin place (Nancy, 2017; Goel et al., 2018). Between 1991 and 2001, Maharashtra, Gujarat, Punjab, Delhi and Haryana attracted a large number of interstates migrants in India. In recent years, the numerous changes in policies on education, market and trade in India have impacted the pattern of migration. It has progressively created a gap between the agriculture and non-agriculture sectors, between rural and urban areas, employment and labour turnover (Singh et al., 2022). Women migrant labourers, in particular, represent a crucial yet often overlooked segment (Neetha, 2004; Rao, 2020). In urban areas, they contribute substantially to sectors like domestic work, retail and low-wage employment (Lingam, 1998; Ponnusamy et al., 2015; Mehta, 2020), yet their experiences are frequently marked by vulnerability and precarious living conditions (Augustine et al., 2016). This paper aims to shed light on the characteristics of the inter-state migrant women, their employment patterns, living conditions, and their social interactions with the locals and employers. We chose Salcete Taluk of Goa, since this regions faces unique challenges that mirrors broader trends of migration and labour dynamics in India.

The present study considers the women workers who have arrived from other states or union territories other than Goa, for all practical purposes. The women workers reach Goa either by way of marriage, as other family members, or as acquaintances of existing migrant male or female workers working in Goa for a while. However, a significant number of workers, both males and females, come to Goa through the labour contractors taking supply contracts from local firms and entrepreneurs. The women workers who have a different place of origin other than Goa are regarded as the target group in this study, irrespective of their urban or rural background. Here in Goa, they are spread in most of the economically productive rural and urban areas through acquaintances or rehabilitated by the labour contractors immediately after arriving in Goa (Mawii et al., 2020; Sawant, 2021).

The study focuses on three key aspects of the lives of women migrant workers in the study area. It examines the composition, patterns and characteristics of these workers with particular attention to their working conditions. Additionally, the study assesses their

housing and overall living conditions, highlighting the challenges they encounter in terms of accommodation and related issues. The study also explores the treatment these workers receive from locals, colleagues and employers, analysing how social interactions and workplace dynamics affect their well-being and job satisfaction. These areas of focus provide a comprehensive understanding of the experiences of women migrant workers in the region.

Study Area

Salcete Taluk, a sub-district in South Goa District of Goa (Figure 1), located in the southern part of the State, spans approximately between latitudes 15.10°N and 15.30°N and longitudes 73.90°E and 74.10°E. It is bordered by the Arabian Sea to the west and by the Mormugao and Quepem taluks to the north and east, respectively. Covering an area of around 650 sq. km, Salcete is one of the most populous and economically active regions of Goa, with Margao as its administrative and commercial hub (Government of Goa, 2021-22). The region's population is diverse, consisting of local Goans and a significant proportion of migrant workers, particularly women, who contribute to sectors like domestic work, agriculture and manufacturing. The total population of the taluk is estimated at around 3,00,000 (Census of India, 2011), with a substantial portion of the population living in rural areas (approximately 60%), while urbanisation is concentrated in Margao and nearby towns. The sub-district's economy is driven by tourism, agriculture and small-scale industries (GIDC, 2024). Salcete Taluk was chosen for this study because it is one of the most economically developed taluks in Goa, having a high concentration of migrant workers, especially women. The taluk has a wide range of employment opportunities in tourism, hospitality, industries, construction and service sectors, giving a scope for the migrant female labour to earn their livelihood. This made Salcete an area for studying women's participation in different types of work. In addition, Salcete has experienced continuous in-migration over the years, resulting in both short-term and long-term settlement of migrant families in visible clusters. Therefore, the taluk provided a suitable and representative setting to examine the employment and living conditions of migrant women workers in Goa.

Methodology

The study has adopted a mixed-method approach integrating both quantitative and qualitative data to carry out an analysis of the working women migrant labourers in Salcete Taluk (sub-district). The quantitative aspect involves the administration of a structured questionnaire cum schedule-based survey designed to capture a broad spectrum of data pertinent to the conditions of women migrant labourers. The target sample comprises 380 women currently residing and working in various rural and urban areas of the Taluk. The questionnaire incorporates both closed-ended and open-ended questions as well as Likert-scale items (Tanujaya et al., 2023). Tabular and graphical representations were utilised to organise and interpret the data effectively.

The collected data collected was classified and tabulated on MS Excel 2019, and analysis was carried out using IBM SPSS Statistics 20. Cross-tabulations are employed to examine the relationships between different variables, enabling a deeper understanding of the interrelationship of various factors (Ahmad et al., 2021). Correlation analysis is conducted to explore the strength and direction of relationships between key variables, with a correlation matrix developed to visualise these associations. Pearson correlation analysis was computed to explore the associations between different variables related to employment and living conditions.

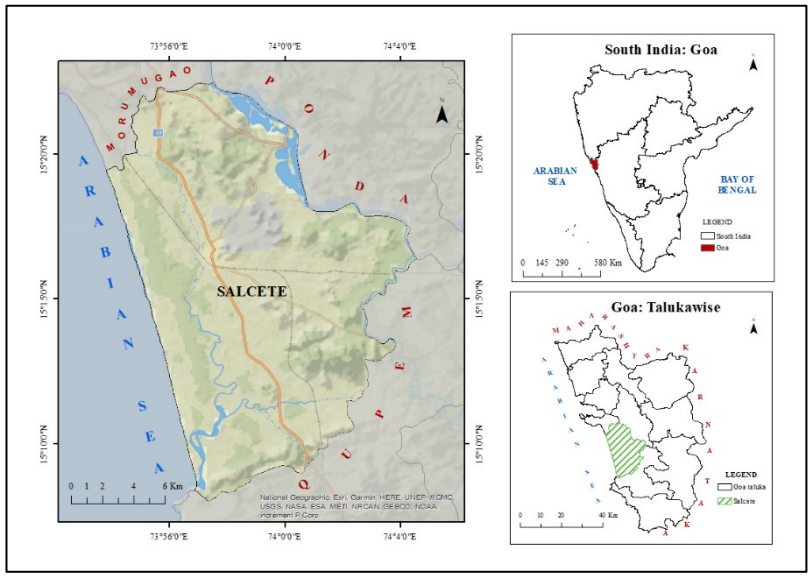


Figure 1: Location Map of the Study Area

The analysis aimed to identify significant correlations among selected variables such as working hours, income, nature and duration of employment, type of accommodation, and treatment received from locals, colleagues, and employers. The correlation coefficients and significance levels were computed for each pair of variables to determine the strength and direction of linear relationships. For instance, strong positive correlations were observed between working hours and income ($r = 0.315$, $p < 0.001$), whereas significant negative correlations were observed between the length of employment and accommodation quality ($r = -0.395$, $p = 0.009$). The outcomes offer understandings into how different aspects of employment and living conditions are interrelated, highlighting areas where variables are strongly associated or show minimal relationships (Chee, 2015).

The correlation values were computed at 0.01 or 0.05 significant levels, which means that there is less than a 1% or 5% probability that this correlation happened randomly, indicating a strong relationship between the variables. The analysis was conducted using a two-tailed test, which examines the possibility of correlations in both positive and negative directions.

K-Means clustering was utilised using IBM SPSS Statistics 20 to segment individuals based on key variables linked to their employment and living conditions (Siregar et al., 2024). The dataset, which included variables such as occupation, nature of employment, duration of employment, working hours, income, type of accommodation, duration of stay, and treatment received from locals, colleagues and employers, was first normalised to ensure consistency across all measures. The optimal number of clusters was determined based on the output, and the K-Means algorithm was executed to partition the data into three distinct clusters. It revealed three distinct clusters among labourers based on their occupational attributes and experiences.

Results and Discussions

This study examines the working conditions and job roles of the migrant women workers, the housing and overall living conditions and behaviours of the employers, colleagues and local population. Examining these dimensions, it provides a comprehensive view for the well-being and integration of these workers.

Places of Origin

The study reveals a significant concentration of neighbouring state origins as depicted in Figure 2, with Karnataka accounting for a dominant 69.7% of the total, making it the primary source. This suggests that Karnataka is the predominant region of origin due to the nearness of location along with another originating State, which is also a neighbouring one. Maharashtra follows with 10.0%, while Uttar Pradesh and Bihar contribute 7.6% and 5.0%, respectively. The remaining states, namely Gujarat, Odisha and others, contribute relatively small percentages ranging from 0.3% to 1.3%. This distribution indicates that the mainstream of the migrants primarily comes from the contiguous states of Karnataka and Maharashtra, with only an inconsequential share from other states.

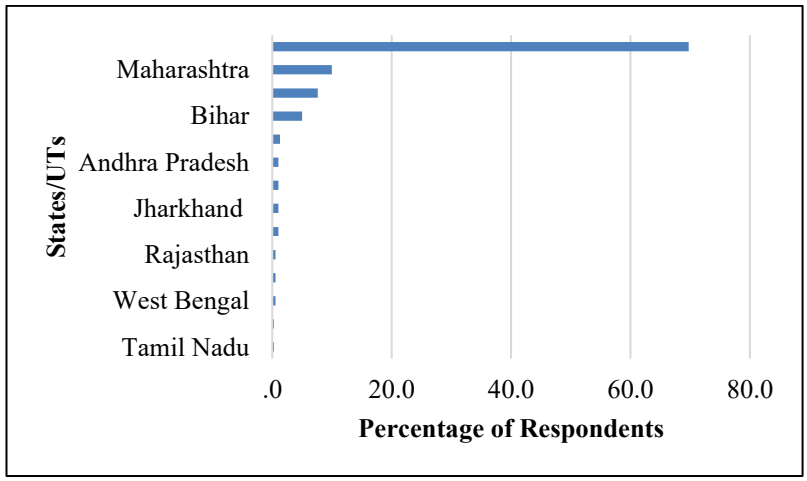


Figure 2a: States/UTs of origin of women migrant workers in Salcete taluk

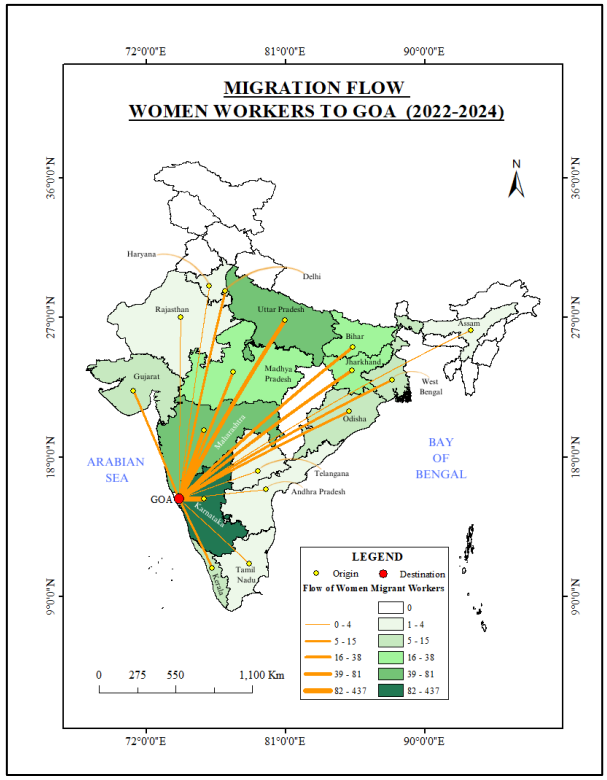


Figure 2b: Map showing the flow cum volume of women migrant workers from other states / UTs of India to Goa

Occupational Environment and Job Characteristics

The occupational distribution (Table 1) reveals a pronounced dominance of housemaids who constitute 47.4% of the workforce, followed by helpers at 18.2%, indicating a substantial portion of individuals involved in support job roles. Occupations such as vendors (11.1%) and tailors (8.7%) also represent notable segments, though they are less prevalent. Factory workers, labourers and saleswomen each make up fewer than 5% of the total, suggesting these roles are less common in this dataset. The minimal presence of sweepers (0.5%) and garbage collectors (0.8%) highlights their marginal representation, notwithstanding the fact that the workers in these professions identify themselves as native or resident population, as they have been doing these jobs for more than 10 years. Overall, the data reveal a skewed occupational structure with a heavy emphasis on low-wage and service-oriented positions.

The study shows a predominance of casual employment comprising 57.6% of the workforce. This indicates a significant reliance on informal or short-term job arrangements. Temporary positions account for 28.9%, highlighting a notable segment of the workforce engaged in non-permanent roles. Daily wage employment, at 11.6%, while permanent

positions represent a mere 1.8% of the total, signifying a minimal presence of job security and long-term employment within the population.

Table 1: Distribution of the WMW into Selected Variables related to Working Conditions

Variables	Class	Frequency	Percentage (%)
Current Occupation	Housemaid	180	47.4
	Helper	69	18.2
	Vendor	42	11.1
	Factory Worker	13	3.4
	Labourer	16	4.2
	Saleswoman	8	2.1
	Sweeper	2	.5
	Housekeeping	14	3.7
	Tailor	33	8.7
	Garbage Collector	3	.8
Nature of Employment	Casual	219	57.6
	Daily Wages	44	11.6
	Temporary	110	28.9
	Permanent	7	1.8
Duration of Current Employment	<2 years	48	12.6
	2-4 years	92	24.2
	4-6 years	77	20.3
	6-8 years	56	14.7
	>8 years	107	28.2
Working Hours	<= 2 hours	4	1.1
	3 to 5 hours	176	46.3
	6 to 8 hours	133	35.0
	8 to 10 hours	63	16.6
	> 10 hours	4	1.1
Monthly Income (in Rs.)	Below 3000	23	6.1
	3000-6000	182	47.9
	Above 6000	175	46.1
		N=380	

In this study, duration of current employment refers to the total number of years the migrant women worker has been engaged in paid work in the present occupation or sector. A considerable portion of 28.2% of individuals have been in their present jobs for over 8 years, reflecting a significant portion of long-term employees. In contrast, 24.2% have remained hired for 2 to 4 years, and 20.3% for 4 to 6 years, suggesting a notable presence of mid-term employment. A smaller percentage, 14.7%, have been in their positions for 6 to 8 years, while 12.6% have been employed for less than 2 years. This distribution highlights a relatively balanced workforce with a considerable segment of long-term employees alongside a noteworthy proportion in mid-term roles, indicating a mix of stability and turnover within the workforce.

The study displays a diverse distribution of work patterns among the workforce. The majority, 46.3%, work between 3 to 5 hours per day, closely followed by those working 6 to 8 hours a day (35.0%). A smaller group (16.6%) works between 8 to 10 hours. Both those working less than or equal to 2 hours and those exceeding 10 hours each constitute 1.1%, highlighting rare instances of very short or exceptionally long working hours. This distribution highlights a prevalence of part-time and normal working hours, with relatively few individuals working extreme hours.

The study reveals a relatively balanced spread across different income brackets. A significant portion of the workforce (47.9%) earns between Rs. 3,000 and Rs. 6,000 per month. Another similar segment (46.1%) earns above Rs. 6,000, suggesting a considerable proportion of higher-income earners. In contrast, only 6.1% of individuals fall into the lowest income bracket of below Rs. 3,000. This distribution suggests a generally higher income level among the majority of the workforce, with a notable concentration in the mid to upper income ranges and relatively few individuals in the lower income bracket.

Quality of Housing and Living Conditions

Table 2 shows the housing and living conditions of WMW. The duration of stay throws light on a prominent trend towards long-term tenure among the workforce. A notable 34.7% of individuals are working for over 20 years, reflecting a substantial proportion of highly experienced employees. Those employed for 5 to 10 years constitute 25.3%, indicating a significant segment of mid-career professionals. The 10 to 15 years bracket includes 16.1%, while 13.2% have been in their positions for 15 to 20 years. The smallest segment, at 10.8%, has been working for less than 5 years. This distribution suggests a workforce with a strong presence of long-term tenure, coupled with a considerable proportion of mid-term employees, indicating a mix of stability and seasoned experience within the labour force.

Table 2 shows the housing and living conditions of women migrant workers (WMW). The duration of stay highlights a clear trend towards long-term residence among the respondents. In this study, duration of stay refers to the length of time (in years) a woman migrant worker has been residing in her current place of residence in Goa, irrespective of changes in workplace or occupation.

A significant 34.7% of women have been living in the current location for over 20 years, indicating a high level of residential stability. Those who have stayed for 5 to 10 years constitute 25.3%, representing a significant group of medium-term residents. The 10 to 15 years category accounts for 16.1%, while 13.2% of the respondents have lived in the area for 15 to 20 years. The smallest proportion, 10.8%, consists of women who have resided in the location for less than five years. Overall, this distribution suggests a predominantly settled migrant population, with a strong presence of long-term residents alongside a smaller group of recent migrants.

The study highlights a dominant trend towards renting among the workforce, with 78.2% residing in rented accommodations. This contrasts sharply with the 19.5% who own their homes, indicating a relatively lower proportion of homeownership. Only 2.4% of individuals have accommodation provided by their employer, suggesting that employer-provided housing is a minor benefit in this context. This distribution underscores a significant reliance on rental housing, with homeownership being less common and employer-provided accommodations playing a minimal role.

A substantial majority (54.9%) pay between Rs. 3,000 and Rs. 6,000 per month in rent, indicating that this is the most common rent range among the workforce. Additionally, 39.4% of individuals spend below Rs. 3,000 on rent, reflecting a notable portion of the population in lower rent brackets. Only 5.7% pay above Rs. 6,000, suggesting that higher rental costs are less prevalent. This spread suggests that most individuals experience moderate rental expenses, with a significant portion in the lower range and a smaller segment facing higher costs.

Table 2: Distribution of the WMW into Selected Variables related to Living Conditions

Variables	Class	Frequency	Percent (%)
Duration of Stay	Less than 5 years	41	10.8
	5 to 10 years	96	25.3
	10 to 15 years	61	16.1
	15 to 20 years	50	13.2
	More than 20 years	132	34.7
Type of Accommodation	Own	74	19.5
	Rented	297	78.2
	Provided by Employer	9	2.4
Rent Paid	Below 3000	117	39.4
	3000-6000	163	54.9
	Above 6000	17	5.7
Nature of House	Coconut roof	8	1.1
	Asbestos roof/steel or tinned roof	300	78.9
	Flat	72	18.9
No. of Rooms	1 to 2	257	67.6
	2 to 4	113	29.7
	More than 4	10	2.6
Overall condition of the house	Miserable	2	.5
	Dilapidated	8	2.1
	Bad	32	8.4
	Satisfactory	151	39.7
	Good	187	49.2
		N=380	

The nature of housing roofs reveals a predominant use of asbestos, steel, or tinned roofs, which cover 78.9% of homes, indicating a widespread preference for these materials due to their durability and cost-effectiveness. Flat roofs are the next most common, with

18.9% of homes featuring this design, suggesting a preference for modern, often urban housing styles. Only 1.1% of homes have coconut roofs, reflecting their rarity and likely use in more traditional or rural settings. This distribution highlights a strong preference for more contemporary roofing materials, with a minor presence of traditional options.

The majority of households, 67.6%, have 1 to 2 rooms, reflecting a trend towards smaller living spaces. A significant portion, 29.7%, occupies homes with 2 to 4 rooms, suggesting a moderately larger but still relatively compact living arrangement. Only 2.6% of households have more than 4 rooms, indicating that larger residences are quite rare. This distribution underscores a predominance of smaller living spaces, with a small proportion of households enjoying larger accommodations.

With reference to the overall condition of houses, the majority of homes are in relatively good condition, with 49.2% rated as "Good" and 39.7% as "Satisfactory." This indicates that a significant portion of the housing stock is in decent to favourable condition. A smaller segment, 8.4%, is classified as "Bad," suggesting that a moderate number of homes are in less favourable states. Very few homes are rated as "Dilapidated" (2.1%) or "Miserable" (0.5%), reflecting that extreme conditions are quite rare. This dispersal proposes that while most housing is in fair to good condition, there is a small but notable proportion of substandard housing that may require attention.

Social Interactions of Women Migrant Workers (WMW)

An extensive portion of the workforce experiences professional and respectful treatment from their employers, as shown in Table 3. Specifically, 37.1% report being treated very professionally, while 32.9% believe they are treated with love and care, suggesting a generally positive work environment characterised by both professionalism and personal concern. A significant 27.6% of women feel they are treated with dignity and respect, emphasising a predominantly respectful atmosphere. However, a small minority of 1.6% report having no employer and 0.8% feel they are treated with suspicion as a stealer or cheat, highlighting a minimal occurrence of negative treatment.

In relation to treatment by colleagues, a significant majority of 59.5% stated that they are treated as equals, reflecting a positive and equitable work environment among peers. However, 40.5% do not have colleagues, suggesting that they work in isolation, especially those working as housemaids, vendors and hawkers. As far as incentives provided by employers are concerned, a vast majority of women (87.4%) revealed that they receive no incentives, indicating a prevalent lack of additional financial or non-financial rewards in their work environment. A modest 10.0% receive gifts during festivals, suggesting that some employers offer occasional, culturally significant incentives. Only a small fraction receives transport allowance (1.6%), advance salary and loans (0.8%) or Bonuses (0.3%), highlighting that these forms of financial support are rare. This distribution underscores a dominant trend of minimal incentive offerings, with only a small portion of employees benefiting from limited rewards.

The most common expectation of the migrant women labourers from their employers is a hike in pay, with 29.7% expressing this desire. A significant number, 15.4%, hope for better working conditions. Other expectations include making the job permanent, maintaining good behaviour, providing bonuses, avoiding pay deductions and ensuring timely payment. A substantial portion, 46%, reported having no specific expectations. This pattern indicates that while many respondents have specific expectations, a notable proportion have no additional demands from their employers.

Table 3: Distribution of the WMW into Selected Variables related to Social Interactions

Variables	Class/ Category	Frequency	Percentage (%)
Treatment by Employer	No employer	6	1.6
	With dignity and respect	105	27.6
	Very professional without affection	141	37.1
	With love and care	125	32.9
	With suspicion as a stealer or cheat	3	.8
Treatment by Colleagues	As equals	226	59.5
	No Colleague	154	40.5
Incentives by Employer	None	332	87.4
	Gifts during festivals	38	10.0
	Transport allowance	6	1.6
	Advance salary & loans	3	.8
	Bonuses	1	.3
Expectations from Employer	Hike in Pay	105	27.6
	Make job permanent	20	5.3
	Provide toilet facilities	255	67.1
Treatment by Locals	Bad	2	.5
	Satisfactory	82	21.6
	Good	231	60.8
	Very good	65	17.1
Treatment in the Locality	With dignity and respect	105	27.6
	With love and care	176	46.3
	No respect and neglect	2	.5
	No interference	97	25.5
		N=380	

The study specifies that the majority of individuals experience positive interactions with the locals, with 60.8% rating the treatment as good and 17.1% as very good. This proposes that an important portion of people have favourable experiences with locals. Additionally, 21.6% find the treatment satisfactory, demonstrating that their exchanges are acceptable but not outstanding. Only 0.5% report experiencing bad treatment, reflecting that negative interactions are quite rare. Overall, the statistics disclose that most individuals

perceive their treatment by locals in a positive light, with only a small fraction encountering negative experiences.

The majority of these women specified that they receive positive treatment within the locality in which they reside, wherein 46.3% reported being treated with love and care, and 27.6% feel they are treated with dignity and respect. Additionally, 25.5% experience no interference, suggesting a degree of neutrality or acceptance. Only 0.5% of respondents feel they receive no respect and are neglected, indicating that such undesirable experiences are rare.

Major Problems faced by WMW

Figure 3 outlines the major problems faced by the 380 respondents. The most prevalent issue is a lack of own housing, reported by 29.2% respondents. Another significant concern is the financial problems, affecting 25.5% respondents. A smaller number of respondents face issues related to the absence of the government Social Security documents, unstable job and income, improper living conditions and family issues. Notably, a vast majority of respondents (35.8%) report having no major problems. This data highlights that financial problems and lack of home ownership are the most significant challenges for the majority of respondents, while fewer report issues related to job stability, living conditions, or family matters.

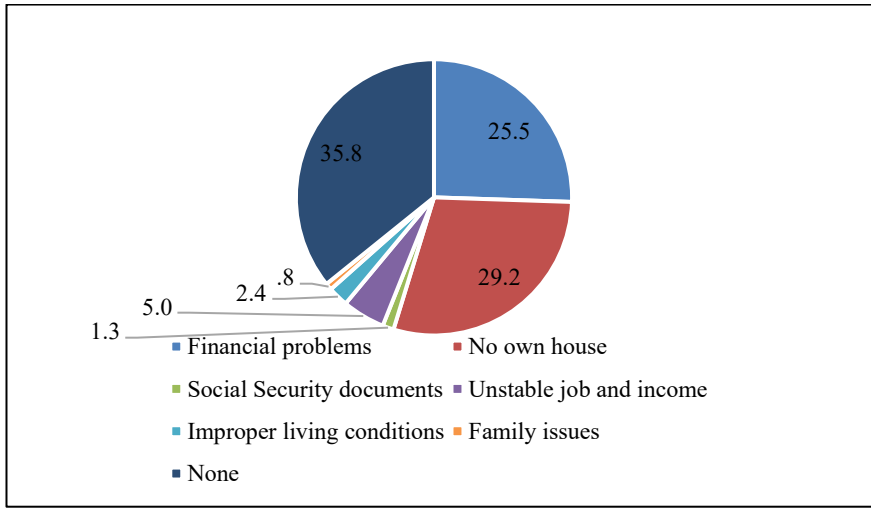


Figure 3: Major Problems Faced by Women Migrant Workers in Salcete Taluk

The study has attempted to study the interrelationship among the selected variables to find the extent of the relationship and draw plausible inferences about the migrant women's socio-economic status. The crosstabulation between two variables from the collected information was carried out, and inferences were drawn for broad findings (Figure 4) and discussed as follows.

Duration of stay and accommodation types reflect a shift in housing patterns. For those staying less than 5 years, 75.6% live in rented accommodations, 19.5% in employer-provided housing and 4.9% own their homes. As the stay extends to 5-10 years, rental accommodation remains dominant at 89.6%, while homeownership increases slightly to 10.4%. By 10-15 years, homeownership rises to 13.1% and rental accommodation decreases to 86.9%. After 15-20 years, ownership increases to 22% and rental accommodation drops to 76%. For those staying over 20 years, homeownership peaks at 32.6%, showing a gradual shift toward owning homes over time.

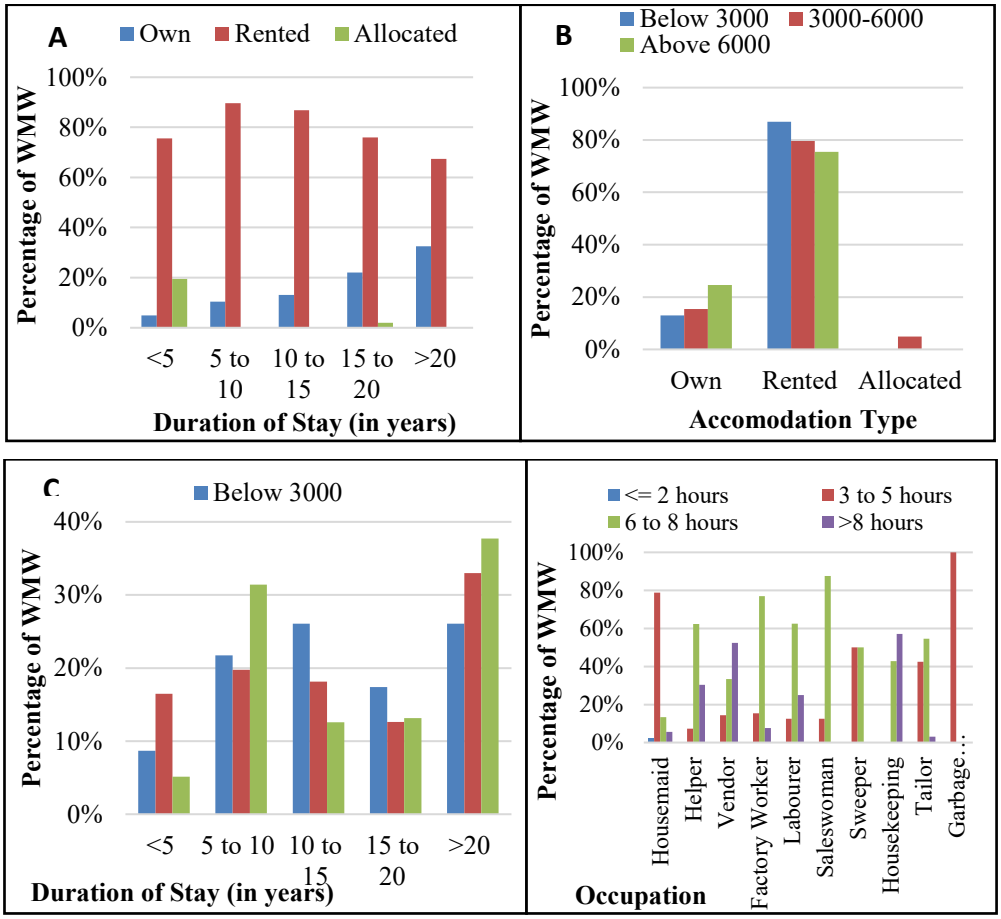


Figure 4: A- Accommodation Type and Stay Duration, B- Income and Accommodation Type C- Income and Stay Duration, D- Occupation and Working Hours

Income levels and accommodation types among women migrant workers reveal distinct patterns in housing preferences across different income levels. Women with incomes below Rs. 3000, the majority (87%) are in rented accommodations, while a small portion of 13% are in accommodation provided by their employer, and none own their

homes. This indicates a heavy reliance on rental housing among lower-income groups. In the Rs. 3000-6000 income bracket, 79% are renters, while 5% live in employer-provided housing, and 15% own their homes, suggesting a moderate shift towards ownership as income increases but still a predominant trend towards renting. For those earning above Rs. 6000, home ownership becomes more prevalent, with 24.6% owning their homes and 75.4% renting.

Income levels and duration of stay among women migrant workers reveal patterns in housing stability. Most women earning below Rs. 3000 have shorter tenures: 8.7% stay less than 1 year, 21.7% for 1-2 years, and 26.1% for 2-3 years, indicating lower-income workers experience less residential stability. In contrast, women earning between Rs. 3000 and Rs. 6000 show more stability, with 33.0% staying 4-5 years. Those earning above Rs. 6000 tend to have even longer tenures, with 37.7% staying 4-5 years, suggesting higher income correlates with greater housing stability and longer residence periods. Occupation and Hours at work among female migrant workers reveal distinct patterns in employment. Housemaids predominantly work shorter hours, with 78.9% working 3 to 5 hours, 13.3% working 6 to 8 hours and 5.6% exceeding 8 hours. Helpers work for extended hours, with 62.3% working 6 to 8 hours and 30.4% over 8 hours. Vendors have the longest work hours, with 52.4% working more than 8 hours. Factory workers and labourers mostly work 6 to 8 hours, while saleswomen, sweepers, and garbage collectors work fewer hours. Tailors and housekeeping staff also show a tendency for moderate to long working hours.

A correlation matrix is created to depict all the relationships existing among the variables (Table 4). The matrix table displays Pearson's correlation coefficients between pairs of variables. Pearson's correlation coefficient (r) measures the strength and direction of the linear relationship between two variables, ranging from -1 to 1.

The matrix offers insights into the associations between various factors affecting labour conditions and experiences. Nature of Work illustrates strong positive correlations with Hours of Work (r = 0.47) and Income (r = 0.35), indicating that more secure and higher-paying jobs tend to involve longer working hours. Conversely, it has a negative correlation with Major Problems (r = -0.12), suggesting that a more stable nature of employment is associated with fewer major problems.

Table 4: Correlation Matrix of selected variables

Variables	Nature of Work	Hours of Work	Income	Period of Work	Type of Housing	Rent Paid	Period of stay	Treatment by Locals	Treatment in Locality	Treatment by Colleagues	Treatment by Employer	Major Problems
Nature of Work	1	.47**	.34**	-.11	-.00	-.06	-.10	-.00	.25**	-.11*	-.07	-.12*
Hours of Work	.47**	1	.43**	-.20	.06	.06	.00	.04	.15**	-.10*	-.11*	-.14**
Income	.35**	.43**	1	-.12	-.14*	.14*	.06	.01	.09	-.17**	-.04	-.08
Period of Work	-.12	-.20	-.12	1	-.29*	.14	.36**	.14	-.07	-.04	-.11	.13
Period of stay	-.20	.00	.06	.36**	-.31**	.24**	1	.50**	-.34**	-.28**	.08	.22**
Treatment by Locals	-.00	.04	.01	.14	-.11*	.23**	.46**	1	-.44**	-.25**	.00	.17**
Treatment in Locality	.25**	.15**	.09	-.07	.15**	-.16**	-.33**	-.44**	1	.35**	.05	-.20**
Treatment by Colleagues	-.11*	-.10*	-.17**	-.04	-.01	-.03	-.28**	-.25**	.35**	1	.12*	-.12*

The following correlations were eliminated from the matrix table due to very weak 'r'

Type of Housing	-.00	.06	-.14**	-.29*	1	-.13*	-.31**	-.11*	.15**	-.00	-.24**	-.24**
Rent Paid	-.06	.06	.14*	.14	-.13*	1	.24**	.23**	-.16**	-.03	.00	.15*
Treatment by Employer	-.07	-.11*	-.04	-.16	-.24**	.00	.08	.00	.05	.19*	1	.03
Major Problems	-.12*	-.14**	-.08	.13	-.24**	.15*	.22**	.17**	-.20**	-.12*	.03	1

Note: * indicates 95% significant and ** indicates 99% significant

Hours of Work correlates positively with Income (r = 0.43), implying that longer working hours are associated with higher income levels. It also shows a poor negative correlation with Period (r = -0.20), indicating that longer working hours are associated with shorter periods of employment or tenure. Hours of Work are weakly correlated with Major Problems (r = -0.14), suggesting that increased working hours relate to a moderate rise in the number of issues faced.

Period of Stay shows a slight positive correlation with Type of Housing (r = 0.36) and Locals (r = 0.50), implying that a longer stay is associated with better accommodation and interactions with locals. It has a feeble negative correlation with Major Problems (r = -0.22), indicating that longer periods of stay are associated with fewer major problems.

Type of Housing correlates positively with Period of Stay (r = 0.36) and negatively weak with Major Problems (r = -0.24), suggesting that better accommodation is linked to longer stays and fewer problems.

Overall, the matrix indicates that secure, well-paying jobs are linked to longer working hours, better accommodation, and longer periods of stay, while those facing more significant major problems tend to have less secure employment and poorer living conditions.

Categorisation of WMW based on Cluster Analysis of Selected Variables

To understand the diversity among migrant women workers, K-means cluster analysis was used to group migrant women workers based on shared characteristics. K-means cluster analysis was carried out in SPSS to identify distinct groups of migrant women workers based on selected socio-economic and work-related variables. The variables used for clustering were age, marital status, education, occupation, monthly income, distance to workplace, working hours, duration of employment, type of accommodation and overall conditions of the house. These variables were originally collected in categorical ranges and were subsequently coded into numerical values (e.g., 1, 2, 3…) to represent ordered categories. All variables were coded in the same numerical direction, where higher values indicated higher levels of the characteristic. The K-means algorithm was then applied to group respondents with similar characteristics. The number of clusters was determined based on meaningful interpretation and clarity of the resulting group profiles. Cluster centres and group memberships were examined to describe the socio-economic patterns observed among the migrant women workers. Table 5 provides the outcome of cluster analysis of different variables related to women migrant workers.

Cluster 1 comprised migrant women with a primary level of education, who were mainly engaged in sales and retail activities such as vending, hawking and sales work within local neighbourhoods. These women had 5 to 8 years of work experience, worked less than 5 hours per day and travelled short distances of about 2 to 5 kilometres, mostly on foot. This indicated the localised nature of their work and limited access to transport. Their monthly income was above Rs. 6000, and they had lived in their present location for 10 to 15 years. Migration in this cluster was primarily driven by the search for better wages, indicating economic motivation. Their housing conditions were satisfactory, and employment was largely undertaken to support family needs. Overall, this cluster represented women who, despite limited resources, had achieved a degree of occupational and residential stability.

Table 5: K-Means Clusters of Selected Variables

Variable	Clusters		
	1	2	3
Age	35-54	35-54	35-54
Marital Status	Married	Married	Married
Education	Primary	Secondary	Primary
Occupation	Sales and Retail	Domestic and Cleaning	Domestic and Cleaning
Duration of Employment	5 to 8 years	0 to 4 years	5 to 8 years
Working hours	<5 hours	<5 hours	<5 hours
Distance covered for work	2 to 5 kms	2 to 5 kms	2 to 5 kms
Income	More than Rs 6000	Less than Rs. 6000	More than Rs 6000
Commute to work	On Foot	By Bus	By Bus
Accommodation Type	Rented	Rented	Rented
Overall condition of the house	Satisfactory	Satisfactory	Good
Period of Stay	10-15 years	5-10 years	>20 years
Reason for Migration	Better wages	Marriage	Marriage
Expenditure	Rs 3000-6000	Rs 3000-6000	Rs 3000-6000
Reason for working	To support the family	To support the family	To become self-sufficient

Cluster 2 consisted of women with low levels of education, predominantly engaged in domestic and cleaning work such as housemaids, helpers, housekeeping staff and garbage collectors. Most had limited work experience of a few months to 4 years, indicating recent entry into the labour market. Although their working hours and travel distances were similar to those of other clusters, they mainly relied on public buses for commuting, suggesting limited familiarity with local routes. Their monthly income was below Rs. 6000, suggesting economic vulnerability. Migration among these women was largely associated

with marriage rather than employment, indicating a socially driven movement. Their duration of stay ranged from 5 to 10 years, pointing to relatively recent settlement. This cluster thus represented a transitional group facing greater risks of job insecurity, exploitation and limited upward mobility.

Cluster 3 included women with primary education who were also engaged in domestic and cleaning work, but differed significantly from Cluster 2 in terms of stability and motivation. These women had 5 to 8 years of work experience and earned more than Rs. 6000 per month. They commonly travelled by bus, suggesting longer commuting distances or a preference for more efficient transport. Unlike Cluster 1, where work was driven by family responsibilities, women in this cluster cited self-sufficiency as their main motivation, indicating greater personal authority. Their residence of above 20 years in the current location and "good" housing conditions indicated long-term settlement and improved living standards. This cluster therefore, represented a relatively empowered group showing signs of upward mobility, economic independence and secure livelihoods.

Overall, the cluster analysis revealed three distinct groups of migrant women workers reflecting varying levels of stability, motivation and socio-economic conditions. Cluster 1 showed moderate stability driven by family responsibility, Cluster 2 highlighted vulnerability and transition linked to socially driven migration, while Cluster 3 reflected greater empowerment, independence and long-term settlement within the informal labour market.

Conclusion

The findings provide a detailed understanding of the work environment, job characteristics and living conditions of women migrant workers in Salcete Taluk of Goa, highlighting broad patterns and differentials. There is a need to improve the situation by implementing the labour- oriented policies that promote housing stability for the poor, fair wages and income security, providing legal protections, etc., which will significantly eliminate major challenges faced by these women. Additionally, offering support services, insurance coverage and health services like ESI can safeguard their rights and improve their quality of life. Focused interventions towards welfare policies, job security and positive societal attitudes are critical for creating a more equitable environment for women migrant workers. By addressing both general and specific factors, these measures will foster greater social and economic stability, benefiting this vulnerable segment of the workforce. Addressing these issues requires targeted interventions that consider both the systemic and individual factors. The implementation of these suggestions is expected to benefit this vulnerable section of migrant female workers. Moreover, they need to be treated with compassion in line with the idealistic national labour welfare framework. Implementation of such measures would positively enhance the overall well-being to raise self-respect for the migrant female workforce in the State of Goa, which might be replicated in other parts of India.

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