

Income and Expenditure Patterns Among Migrant and Non-Migrant Fisherfolk Households in Malappuram District, Kerala, India

ABSTRACT

This study examines the income and expenditure patterns among migrant and non-migrant fisherfolk households in Malappuram District, Kerala. Based on a sample of 375 households, with 172 migrants and 203 non-migrants surveyed between August 2023 and December 2023. Malappuram district which is located in the southern Indian state of Kerala, is known for its Kerala model of development and foremost position in the marine fisheries sector. Employing statistical tools such as chi-square, independent sample t-tests, and multiple linear regression, the study analyses how migration affects the income and expenditure patterns of the marine fisherfolk community. The chi-square results reveal significant disparities in occupational choices influenced by migration. The independent sample t-test indicates a statistically significant difference in mean income between migrant and non-migrant households. The multiple linear regression model examines the influence of migration status on expenditure alongside other explanatory variables, revealing that migration status and income significantly predict expenditure, while family size and age do not. These results, taken together, offer a sophisticated picture of how migration affects the income and spending habits of the Malappuram district's fishing community. Several policy suggestions can be made in light of these findings to reduce inequalities and improve the standard of living for households headed by migrant and non-migrant fishermen. Migrant fishermen can increase their income levels and have more career options by implementing focused skill development and training programs. The community can be empowered and long-term benefits can be ensured by supporting education and awareness programs that emphasize sustainable fishing practices and financial literacy.

Keywords: Marine fisherfolk, Migrant and Non-Migrant Fisherfolk, Income and Expenditure Patterns, Occupational Choices, income disparity

1. INTRODUCTION

Migration plays a pivotal role in economic development, particularly in developing countries grappling with regional inequalities that drive individuals to seek improved livelihoods. By reallocating labour to more productive areas, migration enhances economic efficiency and fosters growth. Significant labour shifts across borders have historically been propelled by

events such as the industrial revolution and globalization (Kumar & Pandey, 2020). Kerala, distinguished by its unique "Kerala model of development," has evolved distinctively from other Indian states, yet this development model has primarily centered on mainstream populations, often marginalizing sectors like the marine fishing industry. This community faces compounded challenges due to seasonal fluctuations and the impact of climate change (Kurien, 1995).

Kerala's coastal population has historically relied on the state's expansive marine fisheries industry for their livelihoods. Across 220 fishing settlements along Kerala's coastline, approximately 800,000 individuals engage in various capture and marine fisheries activities. These settlements are spread across nine coastal districts: Thiruvananthapuram, Kollam, Alappuzha, Ernakulam, Thrissur, Malappuram, Kozhikkode, Kannur, and Kasaragod (GoK, 2015). Malappuram, in particular, hosts a coastal community heavily dependent on this industry, despite being identified as one of the more backward and vulnerable segments of society. The marine fishing sector faces challenges such as seasonal fluctuations and the impacts of climate change, exacerbating economic instability for these communities (Rajan et al., 2020). Migration has emerged as a critical strategy for the survival of Malappuram's coastal population, offering a means to mitigate economic hardships.

Many people from this community leave in search of better jobs and income opportunities, particularly in the Middle East. This trend is indicative of larger trends in which migration is used as a coping strategy in the face of local opportunity scarcity and economic uncertainty. Developing effective policies and interventions requires an understanding of the role that migration plays in the economic dynamics of the fishermen of Malappuram. It emphasizes how these communities have responded to socioeconomic challenges with resilience and adaptability. This study aims to provide insights that can inform targeted strategies to improve livelihoods and alleviate vulnerabilities within this crucial sector of Kerala's economy by examining how migration influences income and expenditure patterns among households that are fishermen.

1.1 Theoretical framework

Oded Stark and David E. Bloom's(1985) paper "The New Economics of Labor Migration" examines the noteworthy developments in labour migration studies. The authors contend that new theoretical advancements have expanded the range of factors, including family dynamics, skill levels, and relative deprivation, that affect migration decisions. These observations highlight the fact that migration is frequently a family strategy intended to diversify risks and improve economic conditions rather than just being an individual decision. One of the main points is that people often feel either relative satisfaction or deprivation based on how often they compare their income to that of people in their reference group. Migration may be prompted by this relative deprivation, as people look to relocate or shift their social circle to better their situation. The study also addresses the relationship between skill levels and migration behaviour, arguing that all-or-none migration scenarios may result from imprecise knowledge of workers' skill levels. The authors point out that migration decisions are frequently made in concert with the immigrant's family, with costs and benefits being shared. For instance, remittances are no longer viewed as solely charitable deeds but rather as a component of an intertemporal contractual arrangement. By emphasizing mutual interdependence over individual optimization, this family-based approach sees migration as a calculated strategy as opposed to a desperate move. These theoretical insights are supported by empirical research, which demonstrates that people's migration decisions are influenced by income incentives.

1.2 Statement of the problem

Marine fisheries is an important sector in India supporting the livelihood of a large population of marine fisherfolks in different ways. The state of Kerala is home to a substantial population of 5,63,903 fishermen. Kerala now stands as the state with the second highest population of fishermen among India's coastal states and union territories. Kerala state has 220 marine fishing villages dispersed over nine districts. Thiruvananthapuram has the highest number of villages at 42, while Kannur has the lowest number at 11. Kerala has 1,21,637 families that are marine fishermen. Thiruvananthapuram district has the most families (30,798), followed by Alappuzha (22,871) and Malappuram (15,962)(CMFRI,2016). Kerala's marine fishing community, especially in the Malappuram district, faces severe socioeconomic difficulties that jeopardize their way of life and general well-being. This community, which is regarded as

one of the most vulnerable groups in society, faces a variety of challenges, from the effects of climate change and natural disasters to being taken advantage of by middlemen in the marketplace (Sunitha, 2019). These difficulties have impeded socioeconomic development and prolonged the cycle of poverty, as is particularly clear in the Malappuram district.

According to Rajan,S.I., & Zachariah, R. K. C. (2019) the Malappuram district in Kerala is notable for having a high emigrant population. The local fishermen in Malappuram are still facing serious local issues like overfishing and unstable income Local fishermen's ability to make a living from fishing is impacted by overfishing, which reduces fish stocks in the area. Furthermore, their problems are exacerbated by unpredictable income, which makes stable and planned finances difficult. In this miserable condition, many of them adopted migration, especially to the Middle East, which is a popular means of subsistence (Rajan et al., 2020) To raise their standard of living and reduce financial strains at home, a large number of people and families from this community look for better economic opportunities overseas. However, more research is still needed to fully understand how migration affects the spending and income habits of migrant versus non-migrant families of fishermen.

1.3 Objectives

1. To analyze the income pattern of migrant and non-migrant fisherfolk households in the Malappuram district
2. To examine the influence of migration on expenditure among migrant and non-migrant fisherfolk households

2. METHODOLOGY

The methodology employed in this ~~work~~study takes an organized approach that consists of four key steps. To guarantee a solid foundation of information pertinent to the study objectives, extensive data collection is first carried out, with a primary focus on primary data. To do this, information must be gathered directly from primary sources and verified for correctness and relevance. Second, a careful consideration of potential variables and their relevance to the research questions is made to select the variables that will most effectively impact the study's results. Third, methods appropriate for investigating relationships and patterns within the dataset are used to evaluate the gathered data using statistical techniques.

Ultimately, the outcomes undergo a thorough analysis to extract significant knowledge and conclusions.

Data collection: A multistage random sampling technique was employed to gather primary data (how data is collected: like interview, surveys or observations etc..), specifically focusing on the families who are fishermen in the Malappuram District. Using Cochran's sample formula, this approach produced 375 samples, of which 203 were non-migrant families and 172 were migrant families based on the proportionate sampling (46 % were migrants and 54% were non-migrant). This robust sampling strategy guarantees a representative sample, which allows for a detailed analysis of the differences in income and spending patterns between non-migrant and migrant fisherfolk families in the district.

Analytical Techniques: To analyze the collected data, several statistical methods were employed to ensure a comprehensive understanding of the dataset. Initially, the socio-economic characteristics provide the basic features of the migrant and non-migrant heads of the households, providing simple summaries and measures such as mean, median, standard deviation, and frequency distributions. To examine the relationships and associations between categorical variables, the Chi-square test was utilized, which helps in identifying significant associations between variables. For comparing the mean income between two independent groups, an independent samples t-test was conducted, which determines if there is a statistically significant difference between the income of these groups. Lastly, multiple linear regression was applied to model the relationship between expenditure and multiple independent variables, allowing for the assessment of the relative impact of each predictor. These combined methods offered a robust framework for analyzing the data, leading to insightful interpretations and conclusions.

3.RESULTS AND DISCUSSIONS

CMFRI (2016) defines a marine fisherman regardless of gender or sexual orientation, as engaging in marine fishing or related activities. They face numerous challenges due to uncertain income due to the nature of their job and juvenile fishing and overfishing, which often leads them to adopt migration as a survival strategy in the Malappuram district to achieve sustainable livelihoods. The major reasons behind the migration are low income, debt

and financial commitments, and disguised unemployment. Migration helps them to improve their standard of living (Raju, s. Et.al,2021). Migration can have positive effects on their lives, offering opportunities for improved stability and well-being. This study aims to examine how migration influences income and expenditure patterns among these fisherfolk, providing insights into the economic impacts of migration. By understanding these patterns, the study seeks to highlight the benefits and challenges faced by the community, ultimately contributing to strategies for enhancing their financial stability and overall quality of life.

Table 1: Socio-economic characteristics of migrant and non-migrants

Category	Non-Migrant				Migrant			
	Mean	Media n	Mod e	Std. Devia tion	Mean	Media n	Mod e	Std. Devia tion
Age	44.75	45	40	10.15 8	37.88	36	45	10.620
Family Size	5.77	5	5	2.456	5.37	5	5	2.182
Income	20635.4 7	20000	1500 0	7545. 579	32488.37	30000	3000 0	10075.4 40
Expenditu re	25300.4 9	26000	2700 0	6075. 910	26133.72	26000	2500 0	5933.80 9

Source: Primary Survey,2023

Table 1, which compares economic and demographic factors between migrant and non-migrant families of fishermen in the Malappuram district, is based on important metrics like age, family size, income, and expenditure. Knowing the socioeconomic dynamics and variations in this community is made possible by these insights. The average age of non-migrant fisherfolk is 44.75 years, slightly higher than migrants at 37.88 years. This difference suggests a trend where younger individuals are more inclined towards migration, possibly seeking better economic opportunities abroad early in their careers. Both non-migrant and migrant families have similar median and mode family sizes of 5 members each. The standard

deviation indicates moderate variability, implying that family sizes among both groups are generally consistent, with occasional deviations. Non-migrant families have a mean income of Rs.20,635.47, with a median and mode at Rs. 20,000 and Rs.15,000, respectively, showing a relatively stable income distribution. In contrast, migrant families report a significantly higher mean income of Rs.32,488.37.

This disparity may reflect the economic benefits of migration, where overseas employment opportunities yield higher earnings compared to local fishing activities. Non-migrant families spend an average of Rs.25,300.49, with median and mode expenditures at Rs.26,000 and Rs.27,000, respectively. The standard deviation suggests moderate variability in spending patterns. Conversely migrants, the mean expenditure is slightly higher at Rs.26,133.72, with the median also at Rs.26,000 and a mode of Rs.25,000. This suggests that while the average expenditure among migrants is marginally higher than that of non-migrants, the most common expenditure amount is somewhat lower. The standard deviation for migrants is Rs.5,933.809, indicating a somewhat lower expenditure variability than non-migrants. In summary, while both non-migrants and migrants have similar median expenditures, migrants show slightly higher average expenditure and lower variability in their spending compared to non-migrants.

3.1 Occupation pattern of migrants and non-migrants

Salim. et.al (2018) in their study of Labour migration and alternate avocation in the marine fisheries sector of Kerala define Labour mobility, indicating that low income in the native place is the primary driver for labour migration, followed by factors such as seasonal employment, debts and financial commitments, disguised unemployment, interest in traveling, persuasion by friends, low levels of education, and lack of technical knowledge. For marine fishermen, fishing is the primary source of income, so it is important to take this into account when analyzing the spending and income patterns of migrant and non-migrant households. This community's economy is based primarily on fishing, which is their traditional occupation. It is imperative to comprehend this primary occupation as it has a direct impact on their income levels and spending patterns.

Table 2: Occupation pattern of migrant and non-migrant

Occupation	Migration Status	
	Migrant	Non-Migrant
Fishing	43(25)	182(89.7)
Allied Activity	14(8.1)	13(6.4)
Driver	27(15.7)	0
Shop Keeper	43(25)	0
Other	45(26.2)	8(3.9)
Total	173(100)	173(100)
Pearson Chi-Square	(199.271, df:4 P:0.000)	
Gamma	Value: .894, p :.000	

Source: Primary Survey,2023

Table: 2 illustrates the occupational distribution among fisherfolk families in the Malappuram district, categorized by their migration status migrant and non-migrant. It highlights significant disparities in occupational choices influenced by migration. Non-migrant families overwhelmingly dominate traditional fishing roles, with 89.7% directly engaged in fishing activities compared to only 25% among migrant families. This stark contrast suggests that fishing remains a primary and stable livelihood option for non-migrants, deeply rooted in local economic activities.

Conversely, migrant families exhibit a more diversified occupational profile. A substantial proportion engages in allied activities related to fishing (8.1%) and other roles such as drivers (15.7%), shopkeepers (25%), and miscellaneous occupations (26.2%). These occupations indicate a broader economic engagement beyond traditional fishing, likely influenced by the opportunities and experiences gained through migration. The significant Chi-Square test result (Chi-Square = 199.271, df = 4, p < 0.001) underscores the strong association between occupation and migration status, confirming that migration significantly shapes occupational

diversity within the fisherfolk community. This finding aligns with the results of Abraham (2020), which similarly highlighted the impact of migration on occupational diversity among fisherfolk.

Moreover, the Gamma value of 0.894 ($p < 0.001$) suggests a robust positive relationship, indicating that as migration increases, so does the likelihood of engaging in diverse occupations beyond fishing. This trend reflects how migration acts as a catalyst for economic diversification among fisherfolk, potentially enhancing household income resilience and economic stability. Understanding these occupational dynamics is crucial for informing policies that support both traditional fishing practices and facilitate the socio-economic integration of migrant families returning to Malappuram district.

3.2 Income pattern of migrant and non-migrant fisherfolk households

Due to their migration to Gulf countries in search of better job opportunities, it is imperative to analyze the income patterns among households within the fisherfolk community in Malappuram district. Major threats in their lives, such as debt and uncertain local income prospects, are frequently perceived as the reason for migration. The comprehension of how migration affects income patterns offers valuable perspectives on the financial effects of migration on these households. When compared to local fishing customs, migration to Gulf countries usually provides fishermen with access to better-paying employment opportunities. The economic advantages of migration are reflected in the rising household incomes that follow this change in employment. The income patterns do, however, also highlight difficulties that can cause income instability, such as sporadic overseas employment or irregular remittance flows. Analyzing these income patterns helps to assess the extent to which migration serves as a pathway to economic improvement and stability for fisherfolk families. It highlights whether migration contributes to significant changes in income levels, enabling households to mitigate financial vulnerabilities and improve their socio-economic status.

The independent samples t-test is a statistical tool used to compare the mean scores of two distinct groups to determine if there is a significant difference between them. In the context of analyzing income patterns among migrant and non-migrant households in Malappuram

district, this test helps assess whether migration to Gulf countries leads to different income levels compared to those who remain engaged in traditional fishing activities locally.

Table 3: Pattern of income among migrant and non-migran households (Monthly Income)

Group Statistics							
Migration status	Mean	Std.Deviation		Std.Error Mean			
Non Migrant	20635.47	7545.579		529.596			
migrant	32488.37	10075.440		768.245			
Independent Samples Test							
Income	Levens's Test for Equality of Variances			T-test for equality of means			
	F	Sig.	T	Df	Sig(2 tailed)	Mean Differences	Std.Error Differences
Equal Variances assumed	20.834	.000	-13.003	373	.000	-11852.904	911.585
Equal variance is not assumed.			-12.703	312.415	.000	-11852.904	933.098

Source: Primary Survey, 2023

Table:3 shows the statistical analysis comparing the income levels between migrant and non-migrant marine fisherfolk households in Malappuram district. According to the descriptive statistics, the mean income for non-migrant households is Rs.20,635.47 with a standard deviation of Rs.7,545.58, whereas migrant households have a higher mean income of Rs.32,488.37 with a standard deviation of Rs.10,075.44. This initial comparison suggests a substantial income disparity between the two groups. The independent samples t-test was

conducted to determine if this difference in mean income between migrant and non-migrant households is statistically significant. The assumption of equal variances was tested using Levene's test, yielding a significant result ($F = 20.834$, $p < .001$), indicating unequal variances between the groups. Therefore, the t-test results were interpreted using the assumption of unequal variances.

The t-test results indicate a statistically significant difference in mean income between migrant and non-migrant households ($t = -13.003$, $df = 373$, $p < .001$). On average, migrant households earn ₹ 11,852.90 more than non-migrant households. The 95% confidence interval for the mean difference (₹ 13,645.39 to ₹ 10,060.41) confirms that this difference is unlikely due to random chance and suggests that migration status significantly influences income levels among marine fisherfolk in the district.

These findings underscore the economic advantages of migration for marine fisherfolk, as migrant households enjoy significantly higher incomes compared to their non-migrant counterparts. Remittances, which are financial transfers from migrant workers to their friends and family back home, are extremely important to migrant families. For the recipients, these monetary inflows are vital because they frequently make up a sizeable amount of their household income. Remittances have the potential to empower individual households and communities, thereby promoting economic development from the bottom up. Remittances can raise living standards at the household level by helping to pay for necessities like food, housing, healthcare, and education. This monetary assistance improves people's quality of life overall and lessens poverty. Remittances can also be saved or invested in small businesses, which promotes economic stability and community development. Nanziri, L. E., & Mwale, M. L. (2023) The results also highlight potential socioeconomic implications, such as income disparities within the community and the role of migration in shaping economic opportunities.

3.3 Influence of migration on expenditure(monthly) among migrant and non-migrant fisherfolk households

A multiple linear regression model was utilized to examine the impact of migration status on expenditure among fisherfolk households, distinguishing between migrants and non-migrants.

In this model, total expenditure served as the dependent variable, while migration status, family size, age, and income were treated as independent variables. Migration status was included as a categorical predictor to assess its specific effect on household expenditure. Family size was incorporated to understand how household composition influences spending habits, with larger families potentially incurring higher expenditures. Age was considered to explore generational differences in expenditure patterns, while income was included as a crucial factor affecting financial capacity and expenditure levels. By employing multiple linear regression, researchers aimed to quantify the individual contributions of these independent variables to total household expenditure while controlling for other factors. This statistical approach facilitates the identification of significant predictors of expenditure and helps elucidate whether migration status exerts a statistically significant influence on spending behaviours compared to non-migrant counterparts.

Table 4: The influence of migration on expenditure pattern (Monthly Expenditure)

Model Summary					
Model	R	R Square	Adjusted R Square	Std Error of the Estimate	
	.555	.309	.301	5030.901	
Change statistics					
F	Df 1	Df 2	Sig. F Change	Durbin Watson	
Change					
41.269	4	370	.000	1.612	
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	4178051412.959	4	1044512853.240	41.269	.000 ^b
Residual	9364685920.374	370	25309961.947		
Total	13542737333.333	374			
Coefficients					
	Unstandardized Coefficients		Standardized	T	Sig
	B	Std. Error	Coefficients		
			Beta		
(Constant)	13963.614	1534.779		9.098	.000

migration status	4312.975	601.274	.358	7.173	.000
Family size	69.385	112.034	.027	.619	.536
Age	1.913	25.028	.003	.076	.939
Income	.356	.028	.626	12.621	.000

Source: Primary Survey,2023

Table: 4 summarises the influence of migration status on expenditure and other explanatory variables.

Model Summary:

R: The correlation coefficient ($R = 0.555$) indicates a moderate positive linear relationship between the predictors and the dependent variable. Variability in the dependent variable that can be explained by the predictors is moderate. The coefficient of determination ($R^2 = 0.309$) tells us that approximately 30.9% of the total variability in the dependent variable is explained by the independent variables included in the model. Adjusted for the number of predictors, it is slightly lower than R Square (Adjusted $R^2 = 0.301$), suggesting that the model explains 30.1% of the variability in the dependent variable.

F Change: The F-statistic (F Change = 41.269) tests the overall significance of the regression model. It compares the variability explained by the model to the variability that cannot be explained by the model (residual variability). The significance level of the F Change statistic (Sig.F Change = .000) indicates that the overall regression model is statistically significant, meaning that the variability explained by the predictors is significantly different from zero.

The Regression Sum of Squares, amounting to 4,178,051,412.959, signifies the portion of the variability in the dependent variable that is explained by the regression model itself. This metric indicates how much of the total variability in income or expenditure can be attributed to the predictors used in the study. Conversely, the Residual Sum of Squares, totaling 9,364,685,920.374, represents the unexplained variability or error within the regression model. It illustrates the amount of variability in income or expenditure that remains unaccounted for after considering the predictors. The Total Sum of Squares, combining both the Regression Sum of Squares and the Residual Sum of Squares, amounts to

13,542,737,333.333. This figure represents the overall variability in the dependent variable, encompassing both the explained variability attributed to predictors and the unexplained variability or error. These ANOVA results provide insights into how well the regression model fits the data and the extent to which the predictors contribute to explaining the income or expenditure patterns observed among migrant and non-migrant fisherfolk households in Malappuram District.

Coefficients:

The regression analysis results provide valuable insights into the factors influencing income or expenditure patterns among migrant and non-migrant fisherfolk households in Malappuram District. Firstly, the constant (intercept) of 13,963.614 units represents the estimated income or expenditure when all other predictors, migration status, family size, age, and income are zero. This baseline figure serves as a starting point for understanding the financial dynamics of the households studied. Migration status emerges as a significant predictor, with a coefficient of 4312.975 and a standardized coefficient (Beta) of 0.358. This indicates that households categorized as migrant experience a notable increase in income or expenditure compared to non-migrant households, after accounting for other variables. This effect is statistically significant ($p < 0.001$), supported by a high T-value of 7.173. Family size and age, however, show minimal impact. Family size, with a coefficient of 69.385 and a non-significant p-value (Sig = 0.536), has a negligible effect on income or expenditure. Similarly, age, with a coefficient of 1.913 and a non-significant p-value (Sig = 0.939), does not significantly influence financial outcomes in this context.

Income emerges as the strongest predictor, with a coefficient of 0.356 and a high standardized coefficient (Beta) of 0.626. A unit increase in income leads to a substantial rise in income or expenditure, holding other factors constant. This effect is highly statistically significant ($p < 0.001$), supported by a very high T-value of 12.621. Overall, the variability in the regression analysis results indicates how well the model explains the variation in the dependent variable based on the included predictors. The significant F Change statistic and the significant coefficients (such as for Migration Status and Income) suggest that these variables contribute significantly to explaining the variability in the dependent variable. In contrast, Family Size

and Age do not contribute significantly to this model. The standard errors associated with each coefficient give us an idea of the variability in the estimates of these coefficients themselves. Makina, D. (2024), in their study, highlights the crucial role of remittances in bolstering household consumption stability and economic resilience, mirroring similar trends observed in other developing nations. Remittances play a significant role as they form a substantial part of GDP and contribute significantly to household income and expenditure patterns. Mishra, K et.al (2022), the study also explains that remittances play a crucial role in augmenting spending on essential items such as food and education, while concurrently reducing expenditures on tobacco and alcohol. However, their influence on categories like clothing, ceremonies, healthcare, and agriculture shows no statistically significant differences between migrant and non-migrant households. These findings underscore the dual effect of remittances in enhancing welfare through both consumption and investment strategies, reflecting broader implications for household economic dynamics influenced by migration.

4. CONCLUSION

It is evident from the comprehensive analysis of income and expenditure patterns among migrant and non-migrant fisherfolk households in Malappuram district that migration significantly impacts their economic dynamics. The mobility of fisherfolk, especially men, plays a crucial role in their livelihood strategies. This mobility helps to mitigate vulnerability to economic stresses and shocks by enabling a more consistent income flow from the fisheries throughout the year (Nunan, F, 2010). Migrant households generally exhibit higher average incomes compared to non-migrant households, reflecting the economic benefits of overseas employment opportunities. This income disparity underscores migration as a viable strategy for enhancing household financial stability and improving socio-economic status within the fisherfolk community. Moreover, the expenditure patterns reveal nuanced differences between migrant and non-migrant households. While both groups exhibit similar expenditure levels, migrant households demonstrate slightly lower average expenditures, possibly due to conservative spending behaviours influenced by the transient nature of remittance income.

The multiple linear regression analysis further confirms the influence of migration status on expenditure, with migration status and income emerging as significant predictors. This statistical model highlights that migration not only increases income levels but also shapes expenditure patterns among fisherfolk households, indicating a complex interplay between migration, economic opportunities, and household financial management strategies. Furthermore, occupational diversification among migrant households underscores the broader economic impacts of migration, as migrants engage in varied occupations beyond traditional fishing roles. This diversification not only reflects adaptation to global economic trends but also enhances household resilience against local economic uncertainties.

In conclusion, while migration presents opportunities for economic advancement among fisherfolk in the Malappuram district, it also brings challenges such as income volatility and occupational transitions. Policies aimed at supporting sustainable livelihoods should consider these dynamics to ensure inclusive development and mitigate vulnerabilities within the fisherfolk community. Enhancing access to financial services, such as microfinance schemes and low-interest loans, will enable fisherfolk to invest in better equipment, education, and other income-generating activities. Strengthening social security measures, including health insurance, pension schemes, and accident insurance tailored for the fisherfolk community, can provide a safety net and reduce economic vulnerability. Improving market infrastructure and access will help fisherfolk sell their catch more efficiently, ensuring fair prices and reducing dependency on middlemen.

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