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MIGRATION AS A STRATEGY FOR LIVELIHOOD DIVERSIFICATION AMONG RURAL HOUSEHOLDS IN ETHIOPIA: A COMPARATIVE ANALYSIS

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ABSTRACT

Sustainable livelihoods are strongly associated with migration, a complex yet diverse phenomenon. Migration offers economic benefits to sending households, including remittances, income source diversification, social network access, and skill acquisition. Despite evidence of its positive economic impact, research on migration's effect on livelihood diversification is limited. This study compares livelihood strategies between migrant-sending and non-sending rural households using a cross-sectional design, and involved 740 randomly selected households from six Kebeles in Ankasha, Amhara. The Berger-Parker formula computed the livelihood strategy index. Blinder-Oaxaca decomposition of linear regression compared strategies between groups. Sending households scored one unit higher on average than non-sending ones. Wealth inequality primarily contributed to the gap. Eliminating wealth disparity widened the gap, offset by the coefficient effect. Younger household heads struggled more with effective strategies. Migrant-sending households exhibited more diversified strategies, with wealth disparity explaining differences. Policies improving economic conditions can enhance household capabilities to navigate challenges.

Keywords: Migration, livelihood Diversification, Comparative Analysis, Ankasha, Amhara, Ethiopia

INTRODUCTION

Migration and sustainable development are intricately linked, influencing each other in a reciprocal relationship. The source elucidates that SDG goals one and eight closely related to migration with particular focus on understanding push and pull factors and achieving improved and sustainable living standards (Aniche, 2020). The implications of migration for sustainable development are complex, with potential contributions to sustainability transitions (Adger, et al,2002). Environmental factors, such as degradation and population growth, can significantly impact migration, necessitating a comprehensive approach to prevention . Despite differences in views, both sending and receiving countries can benefit from migration, with migrants being potential contributors to economic growth (Faozanudin, 2021). Moreover, it is also to be noted that migration contributes to livelihoods and, thus, to sustainable development (Aniche, 2020).

In Ethiopia, migration has emerged as a rapidly expanding and complex phenomenon with multifaceted dimensions. As with global migration trends, the study of migration in Ethiopia has garnered significant attention from scholars seeking to comprehend its various dynamics. While many researchers have concentrated on exploring the underlying causes and motivations behind migration, a notable gap in knowledge remains regarding the effects of migration on the individuals and communities left behind in the process(de Haas, 2010; Mendola, 2012). While it is essential to acknowledge and appreciate the scholarly and policy analyses that focus on understanding the causes of migration, it is equally crucial to adopt a comprehensive approach beyond merely examining the causes of migration. In order to fully comprehend the phenomenon of migration, it is essential to analyse its various dimensions, including the effects it has on the regions, communities, and households from which migrants originate.

There has been little research on the effects of rural outmigration on developing-country communities. For instance, Sunam (2017) examined the effects of outmigration on rural households' non-agricultural income sources and found significant changes in their livelihood strategies. Additionally, Sunam and McCarthy (2015) explored the impact of outmigration on agricultural labour supply and identified notable shifts in the availability and composition of labour in rural areas. Furthermore, the feminisation of agriculture has been another consequence of rural outmigration. Gartaula, Niehof, and Visser (2010) conducted a study highlighting the disproportionate burden placed on women in agricultural activities due to male outmigration. Similarly, Martini, Goldey, Jones, and Bailey (2003) also discussed the feminization of agriculture due to rural outmigration. Moreover, rural outmigration has been associated with growing inequality and differentiation within developing-country communities. Sunam and McCarthy (2015) investigated this aspect and found that outmigration contributed to increasing disparities among migrant-sending and non-sending households and communities.

Some African studies have also highlighted the importance of outmigration in enhancing household food security (Obi, C.; Bartolini, F.; D'Haese, 2020; Sulemana, I.; Anarfo, E.; Quartey, 2019), facilitating development projects (Ajaero, C.; Onokala, 2013), causing agricultural labour loss (Adaku, 2013), and exacerbating income inequality (Anyanwu, 2011). Rural outmigration may have significant implications for migrant-sending communities. The recognition of migration as a crucial development concern in the 2030 Agenda for Sustainable Development serves as an optimistic indication that further exploration of migration within the framework of the development agenda is warranted (IOM, 2018). In Ethiopia, a nation with a population exceeding 100 million individuals, second only to Nigeria in terms of population size (World Bank, 2020), migration holds substantial economic significance. It contributes to approximately 85% of employment opportunities, 42% of

the Gross Domestic Product, and approximately 90% of export earnings (CSA, 2023). These statistics underscore migration's profound impact on Ethiopia's economy and make it imperative to understand the additional effects of rural outmigration on the communities from which migrants originate.

In Ethiopia, labor migration has experienced significant growth in recent decades, primarily due to various structural factors that influence the country's economy and society. This trend is evident in the escalating numbers of individuals leaving rural areas to seek opportunities in urban centres. Between 2005 and 2013, the percentage of rural-to-urban migration witnessed an increase from 24% to 33% (FDRE, 2014). A more recent survey by the Ethiopia Statistics Service (2021), excluding data from the Tigray region due to exceptional circumstances, revealed that rural-to-urban migration in the country stood at approximately 29%. This figure demonstrates that the migration trend persists and continues to shape the demographic landscape of Ethiopia. Approximately two million Ethiopians are estimated to live and work abroad, but this figure may be significantly understated, especially given the recent increase in outmigration (ILO, 2017).

Migration represents a multifaceted and intricate phenomenon intricately intertwined with sustainable livelihoods and development. McDowell (1997) offers a thought-provoking challenge to the prevalent assumption of sedentary lifestyles as the norm, shedding light on the diverse forms of migration and the institutional factors that shape it. Mistri (2013) emphasizes the pivotal role of migration in mitigating vulnerability to environmental and non-environmental stressors, particularly within the context of diminishing natural resources. Tanle (2015) puts forth an integrated framework for comprehensively analyzing the intricate connections between migration and livelihoods, particularly emphasizing the influence of institutional structures and vulnerability. Adger, et al.; (2002) delves into the repercussions of migration and remittances on social resilience and sustainable development in coastal Vietnam, discovering that these factors can both bolster and undermine the diversification of livelihoods. Collectively, these studies underscore the imperative of comprehending the intricate interplay between migration, livelihoods, and sustainable development.

As a fundamental approach to securing a sustainable livelihood, households engage in different income generating activities depending on their socio-ecological contexts. The practice of livelihood diversification through temporary migration, although a primitive practice, has experienced growth due to the impacts of climate change, globalization, and development (Biswas & Mallick, 2021). Despite the abundance of evidence demonstrating the positive economic effects of migration on sending households, there is a relative scarcity of research focused specifically on the impact of migration on livelihood diversification strategies. Therefore, the primary objective of this study is to address this research gap by conducting a comparative analysis of the livelihood diversification strategies employed by migrant sending and non-sending rural households.

METHODS AND MATERIALS

The study was conducted in Ankasha Woreda, Amhara National Regional State. The main outcome variable of the study was households' livelihood strategy. The livelihood strategy index (LSI) was computed using the Berger Parker formula (Endler & Parker, 1990; Maxwell, 2008). First, seven indicators for livelihood strategy including migration were prepared. These included various livelihood strategies adopted by households, such as off-farm wage, livestock keeping, fishing related activities, off- farm self-employment, working in development projects, casual laboring, and migrant sending households and

non-farm activities. Secondly, weights were assigned to these indicators based on their relative frequency across sending/non-sending status. Finally, the weighted sum of the indicators yielded the score for the livelihood strategy index that measures the overall level of livelihood strategies of households. The resulting values are non-negative real values that were taken as continuous variable. A list of explanatory variables were included in the analysis: from individual specific variables – the age of the respondent, sex of the household head, parental education, the respondent's employment status, and marital status – and from household characteristics – household size and wealth were included.

Data cleaning, management and analysis were carried out using STATA version 17. To illustrate the socio-demographic characteristics of the respondents, descriptive analysis techniques were employed. This involved examining and summarizing key variables to provide an overview of the demographic and social factors within the study population. A linear regression model was fit separately for sending and non-sending households for LSI. Thereafter, the Blinder-Oaxaca decomposition analysis was used to split the gap in LSI between the two groups. The Blinder-Oaxaca decomposition technique splits the overall gap in LSI into two parts of migrant sending and non-sending households. The first component is referred to as the endowment effect; it extracts part of the gap that is attributable to differences in characteristics of the two groups. The second part referred to as the coefficient or structural effect shows the discriminatory effect of the covariates and the effects of unknown factors (Jann, 2008; Kaiser, 2015). In our analysis, the coefficients for the pooled model were considered the non-discriminatory coefficients or reference coefficients. It should be noted that the decomposition of the gap was made from the viewpoint of migrant sending households. A p-value of 5% was used to declare statistical significance in the analysis.

Results

The analysis was conducted using data collected from a sample of 740 households residing in the Ankasha district, covering six randomly selected Kebeles. The survey results revealed that a significant proportion of the individuals who participated in the study fell into the middle-aged category, accounting for approximately 30.1% of the total respondents. Additionally, a majority of the participants were adults aged 50 or older, comprising 52.6% of the overall sample. Furthermore, the study found that an overwhelming majority of the households represented in the survey were headed by males, constituting approximately 97.0% of the total households. Moreover, when examining the family sizes included in the study, it was observed that half of the households surveyed fell into the category of medium-sized families, making up approximately 50.8% of the sample (Table 1).

A substantial majority of the respondents were married at the time of the survey (83.6%) and attended a primary level of education (94.7%).The primary source of income for the households in the area was agriculture, accounting for a significant majority of the households (88.2%). This indicates that the majority of families relied heavily on farming, cultivating crops or raising livestock to sustain their livelihoods. Despite the predominant agricultural focus, a small fraction of the households pursued a non-agricultural occupation as their main means of livelihood. Nearly two in five (38.0%) of the households had lower level of asset-based wealth while a third of the households were classified as well off (33.2%) (Table 1).

Table 1: Background characteristics respondents and migrants (N = 740)

Variables and categories	No.	Percent
Age of respondent		
<30	32	4.3
30-39	96	13.0
40-49	223	30.1
50+	389	52.6
Female headed household		
No	718	97.0
Yes	22	3.0
Current marital status of the respondent		
No	121	16.4
Yes	619	83.6
Household size category		
<=4	220	29.7
5-7	376	50.8
8+	144	19.5
Educational level of the respondent		
None	11	1.5
Primary	701	94.7
Secondary+	28	3.8
Occupation of the respondent		
Agriculture	653	88.2
Non-Agriculture	41	5.5
Others	46	6.2
Asset based wealth		
Low	281	38.0
Middle	213	28.8
High	246	33.2

Both migrant sending and non-sending households in the area employed a range of livelihood strategies beyond agriculture to sustain themselves. These strategies included off-farm wage labor, livestock keeping, fishing, off-farm self-employment, casual laboring, and working in development projects. The average values for the livelihood strategy index (LSI) were compared for the sending and non-sending groups of households. The mean comparison test conducted on the livelihood strategy index scores revealed a statistically significant difference between non-sending households and sending households. Specifically, the results indicated that the average livelihood strategy index score for non-sending households was approximately one unit smaller compared to the sending households (Table 2).

Table 2: Patterns of livelihood strategies employed by sending and non-sending households (N = 740)

Livelihood strategies		Households	
		Non-sending (%) (N = 497)	Sending (%) (N = 243)
Off-farm wage (farm related work, but not working on own farm)		60.4	39.6
Livestock keeping (for payment)		63.1	36.9
Fishing related activities		65.0	35.0
Off-farm self-employment (running shop, sewing cloths etc.)		64.6	35.4
Working in development projects in the area		67.0	33.0
Casual laboring		66.6	33.4
Migrant sending households		0.0	100.0
Livelihood Strategy Index	Mean (SE)	3.6 (0.11)	4.3 (0.08)
	P-value (T-test)	0.000	

The livelihood strategy index score was found to be consistently lower by an average of one unit for households headed by youths when compared to those headed by older individuals. Furthermore, when examining the specific subset of migrant non-sending households, this relationship between age and livelihood strategy index scores was even more pronounced. In these particular households, the disparity in livelihood strategy between youths and older individuals was notably greater in magnitude (***β (Sending) = -0.78*** and ***β (Non-Sending) = -1.15***).Contrarily, the score was significantly higher for migrant-sending households headed by young and middle-aged persons than older individuals. Such difference was not statistically noticeable among the migrant non-sending households (***β (Sending) – Age 30-39 = 0.61*** and ***β (Sending) – Age 40-49 = 0.47)***.Another interesting finding reported in this analysis was the striking similarity in livelihood strategy of male and female-headed households in the context of both the migrant-sending and non-sending households (Table 3).

In analyzing the livelihood strategies of households, particularly in the context of migrant sending and non-sending households, it is observed that households primarily relying on the sale of livestock and livestock products exhibit a more diversified livelihood strategy compared to farmers. Notably, this association is even more pronounced within the context of migrant non-sending households (***β (Sending) = 0.56*** and ***β (Non-Sending) = 1.69***). Although the association lacks statistical significance, an increase in the size of landholding among migrant non-sending reduced the score of livelihood strategy. Additionally, it is worth noting that the asset-based wealth of households plays a crucial role in bolstering their livelihood strategies, particularly in the case of migrant non-sending households. In this context, households possessing medium to high levels of asset-based wealth exhibit significantly higher diversified livelihood strategy scores compared to households with low asset-based wealth (***β (Middle) = 2.23*** and ***β (High) = 2.82***) (Table 3).

The occupation of the household plays a crucial role in determining the livelihood strategies of migrant non-sending households. When examining the relationship between occupation and livelihood strategies, it was found that households headed by individuals involved in the non-agricultural sector tended to have diversified livelihood strategy scores compared to those engaged in agriculture-related livelihoods (***β (Non-agricultural occupation) = 0.89)***. In the context of migrant non-sending households, we observed that household heads with a primary level of education had a reduced score on livelihood strategies than households headed by better-educated individuals. In addition, among the migrant non-sending households, married household heads are better off devising diversified livelihood strategies than those not in marital union at the time of the survey (Table 3).

Table 3: Results of OLS regression for the determinants of livelihood strategies among migrant-sending and non-sending households (N = 740)

Variables and categories	Sending (N = 243)				Non-Sending (N = 497)			
	β	p-value	95% CI		β	p-value	95% CI	
Age of respondent								
<30	-0.78	0.02	-1.44	-0.11	-1.15	0.02	-2.15	-0.16
30-39	0.61	0.04	0.03	1.20	0.06	0.84	-0.51	0.63
40-49	0.47	0.02	0.07	0.87	0.19	0.38	-0.24	0.61
50+*[Ref]*	0.00				0.00			
Female-headed household	-0.02	0.97	-1.22	1.17	0.80	0.14	-0.26	1.85
Respondents married at the time of the survey	0.06	0.79	-0.40	0.53	0.60	0.03	0.07	1.14
Household size category								
<=4	0.18	0.32	-0.18	0.54	0.31	0.19	-0.15	0.78
5-7*[Ref]*	0.00				0.00			
8+	-0.31	0.12	-0.69	0.08	0.13	0.61	-0.39	0.66
The educational level of the respondent								
None	-1.13	0.18	-2.78	0.52	0.98	0.28	-0.82	2.79
Primary	-1.00	0.02	-1.82	-0.18	0.35	0.49	-0.65	1.36
Secondary+*[Ref]*	0.00				0.00			
Occupation of the respondent								
Agriculture*[Ref]*	0.00				0.00			
Non-Agriculture	0.26	0.43	-0.39	0.92	0.89	0.04	0.05	1.74
Others	-0.06	0.84	-0.68	0.55	-0.93	0.03	-1.76	-0.09
Asset-based wealth								
Low*[Ref]*	0.00				0.00			
Middle	0.13	0.66	-0.47	0.74	2.23	0.00	1.60	2.86
High	0.03	0.93	-0.57	0.62	2.82	0.00	2.18	3.46
Landholding	-0.02	0.93	-0.35	0.32	-0.44	0.05	-0.87	-0.00
The main source of income								
Selling agricultural products/farming*[Ref]*	0.00				0.00			
Selling livestock and livestock products	0.56	0.03	0.04	1.08	1.69	0.00	1.03	2.35
Other	0.45	0.53	-0.96	1.86	-0.34	0.30	-0.98	0.31

[Ref] = Reference category

The decomposition analysis conducted in the study shed light on the factors contributing to the variance in livelihood strategies between migrant-sending and non-sending households. The results indicated that among the various demographic and socio-economic factors examined, the primary driver of the observed discrepancy was households' asset-based wealth. The effect of asset-based wealth of households on livelihood strategies resulted from both characteristic differential between the groups and structural. As shown in the figure below, migrant-sending households are predominantly from low asset-based wealth category households. This characteristic differential explained the livelihood strategy discrepancy between the sending and non-sending households (***β (Wealth) = 1.46, p-value = 0.000***). Additionally, it was observed that the coefficient effect played a role in reducing the disparity in livelihood strategy between migrant non-sending and migrant-sending households (***β (Wealth) = -0.84, p-value = 0.000)*** (Figure 1).

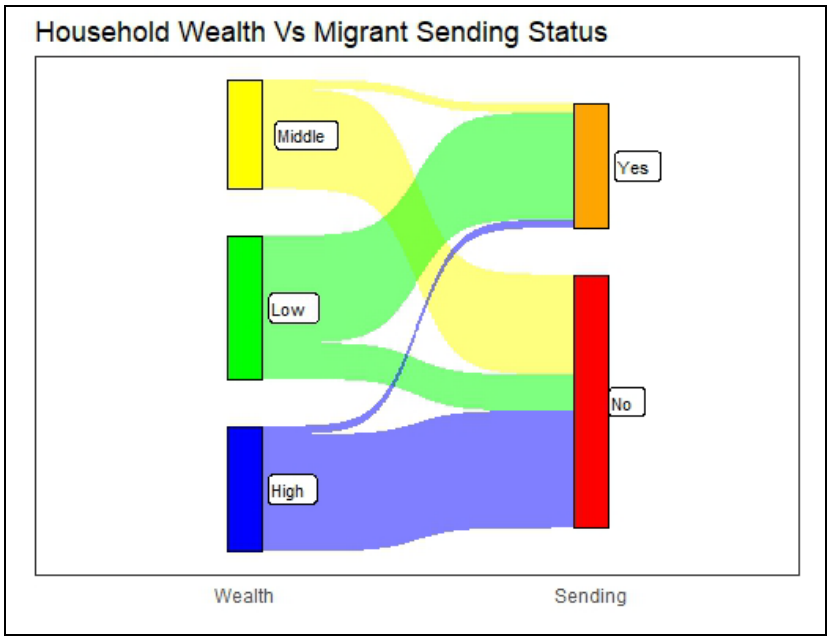

Figure 1: Household Wealth by Migrant Sending Households Status

DISCUSSION

The study aimed to document and analyse the livelihood strategies adopted by rural households in the Ankasha district. More specifically, the study sought to compare the livelihood diversification strategies of rural migrant-sending and non-sending households. The findings reveal a noteworthy discrepancy in the livelihood diversification strategy between migrant-sending and non-sending households. It was observed that migrant-sending households exhibited a higher score in terms of livelihood diversification strategies compared to their non-sending counterparts. This disparity suggests that rural households engaging in out-migration tend to adopt a more diverse range of income-generating activities to sustain their livelihoods. Moreover, the study identified a significant factor contributing to the variation in livelihood strategy scores between migrant-sending and non-sending rural households. The asset-based household wealth was shown to explain the gap in livelihood strategy score between migrant-sending and non-sending rural households.

The findings show that rural households use migration to diversify livelihood strategies to sustain their livelihood and navigate economic shocks. Challenges faced by rural households that depend on rain-fed agriculture as their primary livelihood are manifold and can significantly impact their economic stability and overall well-being. These challenges stem from the inherent vulnerability of rain-fed agriculture to climate variability and other factors. However, individuals in such households often adopt coping strategies to enhance their resilience and improve their livelihoods. Migration has emerged as one such strategy, extensively discussed in the literature, due to its potential benefits, especially regarding receiving remittances (Jha et al., 2018; Paumgarten et al., 2020). Consistent with prior research in Ethiopia and elsewhere, the finding of this study reported that migration is perceived as a livelihood diversification strategy by some rural households. Migrant-sending households may have diversified income sources due to the remittances received (Mago, 2018; Wiederkehr et al., 2018). This diversification makes them less reliant on limited income sources, making them more resilient when faced with economic shocks.

Younger heads of migrant sending and non-sending households are less likely to engage in multiple income-generating activities or adopt different approaches to secure their livelihoods when compared to their older counterparts. Contrarily, an inverse relationship between age and livelihood diversification was reported in a study conducted in Ethiopia's Somali and Amhara regional states (Alemu, 2023; Yussuf & Mohamed, 2022). In recent publications on the link between age and extent of livelihood diversification in Assossa district and Afar region, on the other hand, null findings were reported(Ayana et al., 2022; Melketo et al., 2021). To add to this, in a study conducted in North Shoa zone of Amhara regional state among urban households, Emeru and colleagues (2022) reported that the likelihood of positive livelihood diversification increases as ages of household heads rise. The available body of literature provides evidence that there have been no definitive findings linking the age of household heads to diversified livelihood strategies. Regardless, the likely explanation is that younger individuals may have limited knowledge and experience to manage multiple livelihood strategies. It may also be possible that younger heads lack social networks in the community, making it challenging for them to establish partnerships necessary for livelihood diversification.

Among the migrant non-sending households, wealthier households were more likely to engage in diversified livelihood strategies than poor households. Whereas among the migrant-sending households, the affluent and economically disadvantaged households had a comparable degree of engagement in income-generating activities. The decision to send a migrant did not necessarily lead to a significant divergence in the livelihood strategies of different socioeconomic groups within the sending households. Contrary to our finding, a study on livelihood diversification from rural Laos reported that an improved asset status of households increased their income-generating potential and unlocked migration opportunities (Martin & Lorenzen, 2016). These findings indicate the complex interplay between the study community's wealth distribution, migration, and household livelihood strategies.

The decomposition analysis provided a valuable tool to delve deeper into the intricate dynamics and interactions among wealth distribution, migration patterns, and livelihood diversification. By breaking down livelihood diversification into its constituent parts, we gained a more comprehensive understanding of the underlying mechanism of the influence of wealth on livelihood diversification. Our finding revealed that the differential distribution of asset-based wealth of households contributed to the widening gap in the level of livelihood diversification strategies between migrant-sending and non-sending

households. Migrant-sending households are poorer and often have access to additional sources of income through remittances. These remittances can significantly bolster the financial resources available to migrant-sending households, enabling them to invest in education, healthcare, and other forms of human capital development. Consequently, these households are better equipped to withstand economic shocks and implement diversified livelihood strategies (Sikder et al., 2017). It is expected that household wealth inequality widens the gap in the livelihood diversification strategies of sending and non-sending households. At the same time, our work showed that the return rate of wealth was observed in offsetting the ever-widening gap in coping strategies of rural households.

CONCLUSIONS

Migrant-sending households showed better resilience in sustaining their livelihood. Contrarily, young household heads who lack experience and resources are more likely to be adversely affected by economic fluctuations or unexpected events. Similarly, poor households, characterised by limited financial resources and lower socio-economic status, are more vulnerable to livelihood shocks than their wealthier counterparts. The research findings indicate that the level of wealth possessed by migrant non-sending households is the main factor influencing the number of livelihood strategies they employ. Further decomposition analysis by sending and non-sending households also confirmed that household wealth is a significant cause of variations in the intensity of livelihood diversification strategies. These findings suggest that addressing the economic vulnerabilities of young household heads and poor households could help improve their ability to cope with livelihood shocks. Additionally, efforts could be made to provide targeted support and resources to younger household heads, such as training programs, access to credit, and networking opportunities, to enhance their ability to engage in various income-generating activities. The study will contribute to a better understanding of the livelihood diversification strategies employed by rural households in the study area and beyond.

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The authors declare no competing interest.

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