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DETERMINANTS OF IRREGULAR MIGRATION OF ETHIOPIANS ALONG THE SOUTHERN ROUTE: INSIGHTS FROM KEMBATA MIGRANTS TO THE REPUBLIC OF SOUTH AFRICA

ABSTRACT

This study focuses on understanding the determinants of irregular migration among Ethiopians, specifically examining the case of the Kembata migrant routes to the Republic of South Africa. Data were obtained from a cross-sectional household survey, in-depth interviews and focus group discussions. Descriptive statistics, chi-square tests, binary logit models and thematic analysis were used to analyse the data. Our findings indicate that being a young male, having a large family size and having social networks positively influence household decisions for international migration. Possession of farmland, being employed, and being married have a negative influence on households' decisions for international migration. The results of this study are expected to contribute to the existing body of literature on Ethiopian migration and provide a better understanding of the complex factors driving irregular migration along the Southern Route.

Keywords: *irregular migration, Ethiopians, Southern Route, Kembata irregular migrants, Republic of South Africa*

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1. INTRODUCTION

Understanding the determinants of irregular migration is a major concern among policy-makers as it significantly affects both origin and destination countries (International Organization for Migration (IOM), 2020; Beneberu & Lemlem, 2023). However, the number of migrants relative to the world population has remained stable since 1960 (World Bank Group, 2023), and the focus on irregular migration as a threat in political discussions does not align with the actual number of migrants worldwide (Spencer & Triandafyllidou, 2022). According to the IOM (2022), migrants make up approximately 3.6% of the global population, with an estimated 15% to 20% of global migrants being in an irregular situation (Spencer & Triandafyllidou, 2022). The concept of irregular migration also lacks a universally agreed-upon definition, as noted by several sources (IOM, 2021; UNICEF, 2017). It encompasses both unauthorized entry and presence in a country (Provera, 2015). In the context of this research, irregular migration refers to the movement of individuals from Ethiopia to the Republic of South Africa (RSA) without the necessary permits or documentation for legal travel and work in the RSA. This paper aims to understand the determinants of migration of Ethiopians to RSA with a focus on Kembata irregular migrants to South Africa.

Ethiopia, a landlocked country with a population projected to reach over 120 million has long faced multiple challenges, including poverty, social inequality, unemployment, low agricultural productivity, landlessness, population growth, and limited access to basic services (Winters, 2018; Castelli, 2018; Tekalign, 2021b). Over the past few years, economic factors have played a significant role in influencing migration patterns from Ethiopia (Tekalign, 2018). This is closely followed by drought that affects agricultural activities (Yaro & Setrana, 2024) and political issues such as oppression, insecurity, and ethnic tensions in the country like the outburst of conflict in the Tigray region in November 2020 (Üstübici *et al.*, 2023). The political conflicts in different parts of the country between December 2020 and September 2022 resulted in 5.21 million (6.1%) of the Ethiopian population being refugees, asylum seekers and internally displaced persons (IDPs) (UNHCR, 2022c). Moreover, the revolution in communication technology such as telephones, internet networks, televisions and satellite channels, has provided information for potential migrants to make migration decisions (Teshome, Bailey & Teller, 2013).

Most Ethiopian migrants living in the RSA do not have proper documentation and are considered irregular (Girmachew, 2019). Irregular migrations have been a response to restrictive migration policies and obstacles created by policy-makers and law enforcement worldwide (Siegel, 2019). According to Tekalegn (2021b) and Girmachew (2021), irregular migration is often preferred over legal channels due to the extremely difficult and expensive, process of regular migration, especially for those with limited financial resources. Therefore, human smuggling plays a major role in irregular migration (Belloni & Tshabalala, 2019). In Southern Ethiopia, there is a sophisticated and ever-evolving migration brokerage network that connects rural villages and urban towns with a network of smugglers operating in border towns and neighbouring countries (Fekadu *et al.*, 2019). In Kembata, migration intermediaries play a crucial role deeply rooted in the socio-cultural fabric of the community. These brokers are fully integrated within the community, participating in religious practices, sending their children to local schools, and building strong connections with residents. This close-knit relationship is the foundation of the trust between the brokers and potential migrants, shaped by the shared values and norms of the community. The majority of migrants originating from Southern Ethiopia and heading to the RSA often lack formal education and are unable to communicate in any of the languages spoken along the way. As a result, the assistance provided by smugglers becomes crucial in facilitating their journey (Fekadu *et al.,* 2019; Yordanos & Freeman, 2022).

In recent decades, RSA has become a prominent destination for Ethiopian migrants (Dereje, Meron & Fana, 2024). Although Ethiopian migrants residing in RSA originate from different parts of the country, the majority hail from southern Ethiopia, with a notable concentration from the Hadiya-Kembata region. A study conducted by Tsedeke and Ayele (2017) revealed that close to 40% of households residing in Hadiya-Kembata have a member who has moved abroad. The movement of people from southern Ethiopia to RSA began in the 1990s. In the early 2000s, there was a significant increase in migration along the Southern Corridor with the help of an Ethiopian Ambassador to South Africa (Yordanos & Zack, 2019). The Ambassador facilitated job opportunities for migrants from the Hosaena and Durame areas in the Southern Nations, Nationalities, and Peoples' (SNNP) region, which remains a key region of origin for Ethiopian migrants along the Southern Route to RSA (IOM, 2022). This was followed by chain migration with an increasing scale over the past two decades (Abel, 2023), and the phenomenon of Kembata migration

to RSA is a collective endeavour that has a significant impact on local social dynamics, shaping people's idea of a fulfilling life (Dereje, Meron & Fana, 2024). In 2020, approximately three million migrants were found in RSA (UN DESA, 2020). Estimates of Ethiopian migrants in RSA range from 250,000 (Cooper & Esser, 2018) to as high as 300,000 (IOM, 2021). The selection of the Kembata-Tembaro zone as the focus of this study is based on the high prevalence of irregular migration to RSA confirmed by previous studies.

This study aims to examine the drivers of irregular migration among Ethiopians to RSA, with a specific focus on the Kembatas in Southern Ethiopia. The research questions addressed include: what individual and household factors contribute to irregular migration to RSA? To what extent do social networks and brokers play a role in perpetuating irregular migration from the study area? Which structural determinants are significant in driving irregular migration of Ethiopians to RSA? By addressing these questions, the study seeks to understand the factors influencing irregular migration among Ethiopians to the RSA.

2. THEORETICAL BACKGROUND

For many years, migration theory has been stuck in a deadlock (Massey, 2019; de Haas, 2021). The field of migration studies has remained under-theorized in social research. The current body of work on migration can be categorized into three primary approaches, all focusing on individuals as the primary unit of study but with varying degrees of involvement in migration as a collective endeavour (Dereje, Meron & Fana, 2024). These approaches include functionalism, historical structuralism, and the aspiration-capability framework (ACF). Functionalism views migration as a logical decision made by individuals after weighing the socio-economic costs and benefits to access more stable sources of income and a broader range of opportunities (de Haas et al., 2020). It portrays human beings as rational decision-makers who have access to perfect information and are not influenced by power structures other than the market (de Haas, 2021). While functionalism recognizes the agency of migrants, it only scratches the surface of the multifaceted dynamics at play in the world, such as how migrants' agency is influenced by collective ideals of a better life, the creation of aspirations, and the development of capabilities (Dereje, Meron & Fana, 2024).

In contrast to agency-centered perspectives, historical structuralism emphasizes the role of social and economic structures in shaping migration

patterns (Dereje, Meron & Fana, 2024). According to de Haas (2021), historical structuralism views migration as a product of inequalities between individuals and nations. It sees migration as a potentially irrational process driven by misinformation or exploitation by larger societal structures. Unlike agency-focused theories, historical structuralism does not fully account for why migrants can maintain agency in the face of adversity, or why individuals facing similar structural constraints may respond differently (Massey *et al.*, 1998; de Haas *et al.*, 2020). While historical structuralism acknowledges the multiple constraints that migrants may face, it portrays them as largely determined by external forces rather than as autonomous decision-makers. Similar to functionalist perspectives, historical-structuralism overlooks the role of collective identity and solidarity that migrants may draw upon to navigate challenges and limitations throughout the migration experience (de Haas, 2021).

Unlike functionalism and historical-structuralism, the Aspiration Capabilities Framework (ACF) delves deeply into the collective aspects of migration and emphasizes a more liberal individualist perspective on both aspiration and capability (Dereje, Meron & Fana, 2024). The ACF's focus on the individual agency as a fundamental concept mirrors its individualist approach to understanding aspiration. The ACF's liberal-individualist orientation underscores the belief that individuals are autonomous and have inherent rights that are independent of any communal good (de Haas, 2021). In his study, de Haas (2021) emphasizes the importance of viewing migration as a personal journey, shaped by the aspirations and abilities of the individual. While acknowledging the significance of factors like culture, education, and exposure to media in influencing people's desires and concepts of a fulfilling life, de Haas does not overlook the role of collective influences in this process. These external influences are not seen as inherently valuable, challenging the prevailing individualistic approach in migration studies from a perspective of the global South (Dereje, Meron & Fana, 2024).

Empirical research conducted by Girmachew (2021), Meron (2020) and Tekalign (2021b) highlighted macroeconomic factors such as poverty, unemployment, low agricultural productivity, landlessness, and income inequality as the primary causes. Other researchers emphasised the network theory, which views migration as a collective effort within communities (Dereje, 2022). This theory suggests that migration is maintained through special connections that link migrant-sending communities with host communities in specific destination areas (Fekadu *et al.*, 2019; Yordanos

& Zack, 2019). Moreover, individual traits such as gender, age, and marital status were found to shape migration patterns (Teshome, Bailey & Teller, 2013; Petros, 2020; Ashenafi & Melese, 2020; Beneberu & Lemlem, 2023; Tsedeke & Ayele, 2017). This study focused on the case of Kembata migration to the RSA, to better understand the drivers of migration by drawing on concepts from existing migration theories.

Figure 1: *Conceptual framework of determinants of irregular migration based on literature review*
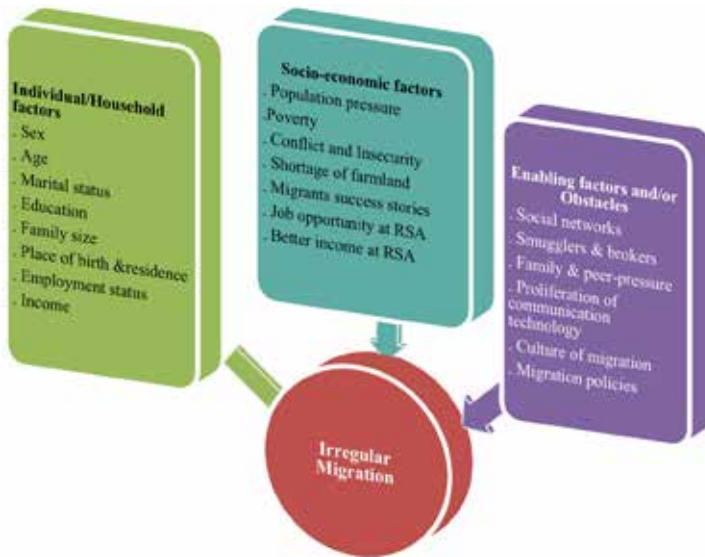
3. MATERIALS AND METHODS

Study Design

The study utilised a concurrent cross-sectional survey design, incorporating both qualitative and quantitative methods. This design was chosen for its efficiency in collecting and analyzing both types of data simultaneously, allowing for the triangulation of results to identify both convergence and divergence (Creswell & Clark, 2018). Data for both the quantitative and qualitative studies were collected concurrently from July to October 2022.

Study Sites

The study was conducted in two migration sites, Angecha and Doyogenna districts, located in the Kembata-Tembaro Zone within the Southern

Nations, Nationalities, and Peoples Regional State (SNNPR) of Ethiopia. These sites were selected based on previous research findings indicating that migration is prevalent in these areas (Girmachew, 2019; Tekalign, 2021b; Yordanos & Zack, 2019). The population size of the Kembata-Tembaro Zone is projected to be about 1,021,421 by the Ethiopian Statistical Services (ESS) in 2022. It is one of the most densely populated areas in Ethiopia, with a population density of 753.3 inhabitants per square kilometre. This is much higher than the population density of 203 persons per square kilometre in the SNNPR (ESS, 2022).

Sampling

This study focuses on examining both migrant and non-migrant households within the Kembata-Tembaro Zone. A multi-stage sampling approach was utilized to select participants for the study. Initially, Angecha and Doyogenna *woredas* in the Kembata-Tembaro Zone were purposefully chosen due to a significant population of irregular migrants heading to South Africa. Subsequently, four *kebeles* (Garba Fandide and Shino Funamura from Angecha *woreda*, and Wanjela and Leino from Doyogenna *woreda*) were selected, with two being rural and two urban areas, based on a high presence of irregular migrants. Finally, households within these selected areas were categorized as either migrant or non-migrant households for the study. Migrant households are those families who have at least one migrant in South Africa, while non-migrant households are those that have no migrant member during the survey period. In the end, 659 sample households were chosen through a systematic random sampling technique. The number of sampled respondents for each *kebeles*, and percentages of proportions were calculated to the total household size (See Table 1). The study sample size was determined using Kothari's (2004) sample size determination formula for a finite population.

$$N = \frac{Z^2 \cdot p \cdot q \cdot N}{e^2 (N{-}1) + Z^2 \cdot p \cdot q}$$

Sources of data and method of data collection

This study is based on data collected as part of an ongoing dissertation project entitled Irregular Migration in Africa: The Case of Ethiopian Emigrants from the Kembata-Tembaro Zone to the Republic of South Africa from

Table 1: *Sample size distribution of selected respondents of the study area* kebeles.

Selected *Kebeles*	Total Number of HHs	Number of Sampled Migrant HHs	Number of Sampled Non-migrant HHs	Total Number of Sampled HHs
Wanjela	705	67	36	103
Leino	1,463	96	102	198
Garba Fandide	1,363	73	104	177
Shino Funamura	1,375	80	101	181
Total	4,906	316	343	659

June to October 2022. Research suggests that employing mixed-method approaches in studies increases persuasiveness compared to solely relying on either quantitative or qualitative methods (Creswell & Clark, 2018). Moreover, due to the complex nature of migration, previous studies by (Teshome, Bailey & Teller, 2013; Beneberu & Lemlem, 2023; Girmachew, 2019; Petros, 2020, Ashenafi & Melese, 2020) employed a combination of quantitative and qualitative research methods. The quantitative primary data was collected through a semi-structured questionnaire from 659 randomly selected participants from migrant and non-migrant households. Quantitative methods like surveys were used to produce numerical data (Creswell & Clark, 2018) on drivers of migration, the demographic and socio-economic background of migrants. We developed a semi-structured questionnaire to collect data on demographic and socio-economic variables and predictors of irregular migration. Field data collectors were carefully chosen and supervised by principal researchers at each study site.

Qualitative data was gathered through in-depth interviews and focused group discussions (FGD) with purposively selected participants, including migrant returnees, community leaders, and experts in labour and social affairs in the study area. Qualitative studies such as in-depth interviews and focus group discussions provide deeper insights to assess the drivers and processes of irregular migration (Hollstein, 2014). One focused group discussion was conducted in each *kebele* and two focused group discussions with experts in the labour and social affairs offices (a total of six FGDs) were held. Moreover, in-depth interviews were conducted with migrant returnees, experts in labour and social affairs, community leaders and *kebele*, *woreda* and zone administrative bodies in the study area. Practical

factors such as participant availability and resources for data collection and analysis were taken into consideration when determining the number of participants for in-depth interviews. An unstructured interview guide was prepared on topics such as migration aspirations, determinants of migration, and migration decision-making to collect data through both in-depth interviews and FGDs. All in-depth interviews were conducted in person by one of the authors simultaneously with the data collection for survey questionnaires.

Methods of data analysis

In this study, both descriptive and inferential methods of data analysis were utilized. Descriptive statistical methods such as frequency, percentage, median, range, and standard deviation were employed. In addition, inferential methods including the chi-square test, Mann-Whitney U Test, and crosstabs were used to compare proportions and assess the relationships of selected variables between migrant and non-migrant households. To identify the determinants of irregular migration a binary logistic model was utilized.

Econometric model specification for determinants of irregular migration

A binary logit model was used to determine the key factors influencing irregular migration and to gain insight into households' migration decisions. This model was employed to evaluate the impact of various explanatory variables on a binary response variable through maximum likelihood estimation. The binary logit model was chosen for this study because the dependent variable is binary (migrant household or non-migrant household), and the coefficients are interpreted in terms of odds ratios. According to Gujarati (2004), the functional form of the binary logit model to predict the likelihood of migration is as follows:

$$Li = ln\left(\frac{p(yi = 1)}{p(yi = 0)}\right) = \beta_0 + \beta_i x_i + \varepsilon_i$$

Li represents the likelihood of migration, with 1 assumed if the household has a migrant member and 0 if it does not have a migrant member going to South Africa. β_0 = is the intercept, β_i = represents the estimated coefficients of each independent variable, indicating the change in Li for a unit change in the independent variables (x_i) in the case of

continuous variables and a discrete change in the case of non-continuous variables. x_i = denotes the list of independent variables that influence the household's migration decision, and ε_i= represents the error terms.

Before executing the binary logit model, the relevant assumptions in the econometric analysis were considered. The multicollinearity among the explanatory variables was checked, and all variables were found to have a Variable Inflation Factor (VIF) lower than 10 (see Appendix 1), thus they were included in the regression analysis. The validity of the model was also tested before interpreting each coefficient using goodness-of-fit tests, including the Chi-square coefficient and its significance value (see Table 5).

Measurement variables

Migration Status (MIGSTAT): This is a dummy variable in the model that indicates the household migration status. It is assigned a value of 1 if the household has migrants going to South Africa, and 0 if the household does not have any migrants.

Table 2: *Summary of hypothesized independent variables and their expected signs*

Variables	Type of variable	Descriptions and Measurement	Expected sign
Sex	Dummy	Females are less migrant than males 1= if female; 2= if male	+
Age	Categorical	The younger age is the higher probability for migration than the elder 1= for 15-24 years; 2= for 25-34 years; 3= for 35-49 years; 4=for 50-64 years; 5= for above 65 years	+
Marital status	Categorical	The unmarried have a higher probability of migrating 1=for single; 2= for married; 3= for divorced; 4= for widowed	+
Family size	Continuous	Large family size led to a greater probability of migration Number of Household members	+
Educational status	Categorical	The more educated were less likely to migrate 1=for don't read and write; 2= for read and write only; 3= for primary education; 4= for secondary education; 5= for certificate; 6= for diploma; 7= for degree and above	-

Variables	Type of variable	Descriptions and Measurement	Expected sign
Place of birth and residence	Dummy	Urban residence is less likely to lead to migration 1=if rural, 2= if urban	-
Employment status	Dummy	Unemployment led to more migration 1= if Yes; 2= if No	+
Average monthly income	Continuous	Higher-income at home leads to less migration or may help finance migration Amount of income in Ethiopian Birr (ETB)	+/-
House ownership	Dummy	Possession of a house may lead to less need to migrate or may help finance migration 1= if Yes; 2 if No	+/-
Farmland ownership	Dummy	Having farmland supplies a source of income to finance migration or discourages migration 1= if Yes; 2 if No	+/-
Poverty	Dummy	A poor household has a greater likelihood of migrating irregularly 1= if Yes; 2 if No	+
Conflict and insecurity	Dummy	The presence of conflict and insecurity push households to send migrants 1= if Yes; 2 if No	+
Population pressure	Dummy	High population pressure pushed households to send migrants 1= if Yes; 2 if No	+
Expected job opportunity at RSA	Dummy	Expectation job at RSA attract households to send migrants to RSA 1= if Yes; 2 if No	+
Expectation of better income at RSA	Dummy	Expectations of better income at RSA attract households to send migrants to RSA 1= if Yes; 2 if No	+
Presence of family members or friends at RSA	Dummy	The presence of family members or friends at RSA establishes social ties for migrants 1= if Yes; 2 if No	+
Presence of social and migrants' networks at RSA	Dummy	The presence of social networks plays an enabling factor for potential migrants 1= if Yes; 2 if No	+
The presence of smugglers and brokers	Dummy	Smugglers and brokers serve as the main facilitators of irregular migration 1= if Yes; 2 if No	+

Ethical considerations

The purpose of the study was clearly explained to the research participants before data collection to ensure their voluntary participation. Pseudonyms were used for direct quotations from interviews, to maintain the anonymity of the research participants. Written consent was obtained from the research participants before conducting interviews, and they were assured of their right to withdraw from the study at any time. Ethical clearance for this study was obtained from the Ethical Review Board of the Centre for African and Asian Studies (CAAS) at Addis Ababa University with reference number CAAS/106/2022-23.

4. RESULTS

Descriptive and econometric results

Gender of respondents: Out of the total 659 sampled households, the majority of household heads in the survey were male (531 or 80.6%), while 128 (19.4%) were female. The results show that males are more likely to migrate through irregular migration compared to females. There is a statistically significant difference in the sex distributions across the migration status of respondents, with a p-value of 0.000, which is less than 0.05 at a 5% level of significance. The logistic regression results show that the gender of the household respondent has a significant and positive effect on the household's decision to migrate to the RSA. When all other factors remain constant, males have a 16.73 times greater chance of emigrating irregularly to RSA compared to females. The study results are consistent with previous studies by (Teshome, Bailey & Teller, 2013; Yendaw, 2021;

Table 3: *Descriptive statistics of continuous variables used in the regression analyses*

Variables	Migration Status of Households		Total	Sig
	Non-Migrants HHs	Migrants HHs		
	N Mean Rank Sum Ranks	N Mean Rank Sum Ranks	N	
FMSZ	343 321.85 110396.00	316 338.84 107074.00	659	.249
MONIN	343 292.56 100349.00	316 370.64 117121.00	659	.000

Source: Household Survey, 2022.

Yordanos & Freeman, 2022) that argue irregular migration to South Africa is characterized by sex-selective or highly male-gendered, due to the risky nature of the long-distance overland route through illegal border crossings and the laborious nature of the work mainly trading business loaded with goods for door-to-door sale in RSA.

Age of respondents: The largest group of respondents falls within the age range of 25 to 34 years (38.4%), and the age range of 35 to 49 years (31.7%), together make up about 70% of the respondents. This indicates that many irregular migrants are found in the productive age range. The Chi-square test results show a significant difference in the distribution of age among respondents across migration statuses, with a p-value of 0.000. The results of the logistic regression also indicate that age has a significant and positive association with migration status at a p-value less than 0.05. Respondents in the age category of 25 to 34 years have 2.672 times higher odds of migration through the irregular system than respondents in the reference category (15 to 24 years). Meanwhile, those respondents between the ages of 35 to 49 have 3.742 times higher odds than those in the reference category, suggesting they have a higher propensity for irregular migration than any other age category. In contrast, when other factors remain constant, a unit increase in the respondent's age leads to a decreased tendency to migrate irregularly to RSA by 0.683 times for the category of 50 to 64 years and 0.412 times for those above 65 years.

Marital status: The majority of respondents were married (48.6%) followed by singles (46.4%). As shown in Table 4 below about 60.1% of migrant households consisted of singles while 33.8% were unmarried in non-migrant households. This shows a significant difference in the percentages of marital status across migration status. Young unmarried or single individuals are more prone to irregular migration to the RSA. The Chi-square result also confirms the presence of a significant difference in the proportion of marital status of respondents concerning migration status, with a p-value of.000< 0.05. The econometric result shows that marital status has a significant negative influence on households' decision to migrate irregularly to the RSA. The likelihood of irregular migration from the Kembata-Tembaro Zone decreases by a factor of 0.274 for married individuals compared to single or unmarried respondents, keeping other variables unchanged. The divorced group is 0.589 times less likely to migrate irregularly compared to single or unmarried individuals.

Family size: The family size of respondents was from one to sixteen, with a mean of 6.04 and a standard deviation of 2.329. This is higher than the average household size in Ethiopia (4.8) and the Southern Nations Nationalities and Peoples Region (4.9) (BoFED, 2019). Since the variable did not meet normality assumptions for a parametric test, a non-parametric Independent-Samples Mann-Whitney U Test was conducted to compare the mean rank distribution of family size across migration status. The results indicate that the distribution of family size is similar between migrant households (338.91) and non-migrant households (320.86), with no statistical difference (U= 51059.500, p= 0.220 > 0.05). Logistic regression reveals a positive and significant association between family size and migration. A unit increase in family size leads to higher odds of favouring an irregular migration decision by a factor of 1.139, suggesting a link between household size and irregular migration from the Kembata-Tembaro Zone to the RSA.

Educational status: The majority of respondent households have a secondary education level (33.6%), followed by primary education (25.4%), totalling approximately 59% of the survey respondents. Young adults with primary or secondary education are more likely to engage in irregular migration to the RSA. There is a significant difference in educational status proportions among respondents across migration statuses, with a p-value of 0.000 < 0.05. Educational status has a significant and positive impact on irregular migration, according to logistic regression results. Literate respondents who can read and write are 5.070 times more likely to migrate irregularly than illiterate individuals, holding other factors constant. Those with primary and secondary education have nearly 2.5 times the likelihood of irregular migration to the RSA compared to those illiterate individuals. However, the propensity for irregular migration to the RSA decreases by 0.443 times for those with a degree or higher, compared to illiterate individuals.

Employment status: The majority of respondents (58.1%) reported that unemployment is the main driver of irregular migration to the RSA. The results of the Chi-Square test indicate significant differences in the proportions of employment status among migrants and non-migrants, with a p-value of 0.000<0.05. Employment status has a significant negative influence on households' decision to engage in irregular migration in the study area. Participants who are employed are 0.070 less likely to emigrate irregularly from the Kembata-Tembaro Zone to the RSA. This

Table 4: *Descriptive statistics of categorical variables*
used in the regression analyses

Variables		Migration Status of Households				Total		χ^2	p-value
		Migrants HHs		Non-Migrants HHs					
		Freq.	%	Freq.	%	Freq.	%		
SEX	Female	8	2.5	120	35	128	19.4	110.686	.000
	Male	308	97.5	223	65	531	80.6		
AGE	15-24	53	16.8	65	19	118	17.9	33.517	.000
	25-34	134	42.4	119	34.7	253	38.4		
	35-49	114	36.1	95	27.7	209	31.7		
	50-64	13	4.1	50	14.6	63	9.6		
	Above 65	2	0.6	14	4.1	16	2.4		
MARS	Single	190	60.1	116	33.8	306	46.4	54.375	.000
	Married	122	38.6	198	57.7	320	48.6		
	Divorced	2	0.6	7	2	9	1.4		
	Widowed	2	0.6	22	6.4	24	3.6		
EDUC	Don't write and read	9	2.9	60	17.5	69	10.5	81.521	.000
	Read and write only	71	22.5	31	9	101	15.3		
	Primary education	82	26	85	24.8	167	25.4		
	Secondary education	120	38.1	101	29.4	221	33.6		
	Certificate	11	3.5	6	1.7	17	2.6		
	Diploma	16	5.1	17	5	33	5		
	Degree and above	72	2.2	43	12.5	50	7.6		
PBRES	Rural	185	58.5	192	56	377	57.2	0.443	.506
	Urban	131	41.5	151	44	282	42.8		
EMP	Yes	157	49.7	119	34.7	276	41.9	15.182	.000
	No	159	50.3	224	65.3	383	58.1		
HOUSE	Yes	254	80.3	261	76.1	515	78.1	1.770	.183
	No	62	19.7	82	23.9	144	21.9		
FARM	Yes	199	63	185	53.9	384	58.2	5.526	.019
	No	117	37.1	158	46.1	275	41.8		
POVERTY	Yes	246	77.8	242	70.6	488	74.1	4.554	.033
	No	70	22.2	101	29.4	171	25.9		
CONFLICT	Yes	129	37.6	112	35.4	241	36.6	1.289	.525
	No	213	62.1	204	64.6	417	63.3		

Variables		Migration Status of Households				Total		χ²	p-value
		Migrants HHs		Non-Migrants HHs					
		Freq.	%	Freq.	%	Freq.	%		
POPPRES-SURE	Yes	195	61.7	249	72.6	444	67.4	8.867	.003
	No	121	38.3	94	27.4	215	32.6		
JOBOPP	Yes	241	76.3	246	71.7	487	73.9	1.762	.184
	No	75	23.7	97	28.3	172	26.1		
BETTER-INC	Yes	199	63	234	68.2	433	65.7	2.009	.156
	No	117	37	109	31.8	226	34.3		
FAMMEM-BERS	Yes	185	58.5	157	45.8	342	51.9	10.747	.001
	No	131	41.5	186	54.2	317	48.1		
NETWORK	Yes	183	57.9	288	84	471	71.5	54.755	.000
	No	133	42.1	55	16	188	28.5		
SM-MUGLERS	Yes	169	53.5	225	65.6	394	59.8	10.044	.002
	No	147	46.5	118	34.4	265	40.2		

Source: Household Survey, 2022

suggests that irregular migration to the RSA is more common among unemployed individuals than among those who are employed. An increase in the employment rate in the southern region of Ethiopia is associated with a decrease in the rate of irregular migration to the RSA. Focus group discussion participants mentioned a lack of employment prospects and low wages as factors pushing youth from the Kembata-Tembaro Zone to South Africa in search of better economic opportunities. As a result, many young people are becoming hopeless due to the lack of employment opportunities, including recent university graduates.

Average monthly income: The average monthly income of the respondents is 1974.67 Ethiopian Birr (ETB), with a standard deviation of 901.243. This is slightly higher than the national average monthly income of 1878.52 birr (National Bank of Ethiopia, 2023). The respondents' monthly income ranges from a minimum of 500 ETB to a maximum of 5400 ETB. A non-parametric Independent-Samples Mann-Whitney U Test was conducted because the variable did not meet the normality assumptions required for a parametric test. A comparison of the mean rank distribution of average monthly income across migration statuses of households shows that the distributions of the mean rank for migrant households (197.05) and non-migrant households (125.10) were statistically different, with U= 7387.000

and p= 0.000 (< 0.05). The logistic regression results show that the average monthly income of households has the same odds of influencing either higher or lower-income households, or that the variable of average monthly income has no considerable influence on a family's decision to engage in irregular migration to the RSA. This is because migration is socially embedded and there are various alternatives to finance migration from the study area such as debt bondage financing (Tekalign, 2021b; Meron, 2020) and sponsorship by brokers and family members (Dereje, 2022, Yordanos & Freeman, 2022). As qualitative participants noted, most migrants are migrating through family sponsorship from RSA and, in turn, the sponsored migrants were made to serve in the business of their sponsors until the balance sheet was corrected through repayment of debt in an equivalent amount of years of services for the amount of money spent to finance their migration.

Farmland ownership: Land ownership is a fundamental asset for people's livelihood in rural areas. Approximately 58.2% of the households interviewed own farmland, while 41.8% do not. There is a statistically significant difference in the proportions of agricultural land ownership between migrant and non-migrant households, with a p-value of 0.019. Similarly, households' ownership of farmland has a significant negative influence on the likelihood of irregular migration to the RSA. Households that own farmland have a 0.499 times decreased likelihood of emigrating irregularly to the RSA compared to those who do not own farmland. The scarcity of farmland is significantly associated with irregular migration, as households have a decreased likelihood of migration with an increase in their farmland size.

Presence of family members or social networks in RSA: The majority of respondents (51.9%) indicated that the presence of family members and friends in RSA is a factor for irregular migration. The result of the Chi-Square test indicates a significant difference in the proportions of respondents considering the presence of family members and social networks in RSA as a driving factor for irregular migration within migrant and non-migrant households, with a p-value of .001. The odds of irregular migration decrease by a factor of 0.089 for households without family members or social networks in RSA compared to those with connections in the destination. Therefore, the likelihood of irregular migration is higher for people who have connections with a network of earlier migrants or returnees.

Table 5: *Binary logistic regression results on the determinants*
of irregular migration

Variables	B	S.E.	Wald	df	Sig.	Exp(B)
SEX(1)	2.817	.425	44.021	1	.000	16.730
AGE			26.502	4	.000	
AGE(1)	.983	.323	9.270	1	.002	2.672
AGE(2)	1.320	.379	12.137	1	.000	3.742
AGE(3)	-.381	.535	.507	1	.477	.683
AGE(4)	-.886	.942	.885	1	.347	.412
MARS			22.454	3	.000	
MARS(1)	-1.296	.277	21.888	1	.000	.274
MARS(2)	-.530	1.023	.268	1	.604	.589
MARS(3)	-1.791	1.154	2.407	1	.121	.167
FMSZ	.130	.054	5.816	1	.016	1.139
EDUC			24.886	6	.000	
EDUC(1)	1.623	.535	9.221	1	.002	5.070
EDUC(2)	.886	.508	3.045	1	.081	2.425
EDUC(3)	.888	.500	3.156	1	.076	2.430
EDUC(4)	1.866	.840	4.936	1	.026	6.465
EDUC(5)	1.331	.676	3.874	1	.049	3.785
EDUC(6)	-.814	.687	1.403	1	.236	.443
EMP(1)	-2.657	.482	30.366	1	.000	.070
MONIN	.000	.000	4.042	1	.044	1.000
HOUSE(1)	.274	.350	.614	1	.433	1.316
FARM(1)	-.695	.273	6.453	1	.011	.499
POVERTY (1)	-.324	.334	.942	1	.332	.723
POPPRESSURE(1)	.016	.351	.002	1	.963	1.016
JOBOPP (1)	-.161	.340	.224	1	.636	.851
BETTRERINC (1)	.500	.273	3.360	1	.067	1.648
FAMMEMBERS (1)	-2.424	.424	32.716	1	.000	.089
SMUGGLERS (1)	.803	.259	9.592	1	.002	2.232
Constant	-2.493	.921	7.322	1	.007	.083

LR Chi-Square (26) = 382.463, p=0.000 Reference Category= Non-migrant household
Log likelihood=529.998 Number of observations= 659
Correct prediction of all samples = 82.4%
Hosmer-Lemeshow Test Chi-square (8) = 5.866, p=0.662

Source: Own Household Survey, 2022.

Presence of smugglers and brokers: The existence of smugglers and brokers is seen as an enabling factor of irregular migration along the Southern Route by the majority of both migrant (53.5%) and non-migrant (65.6%) households. The result of the Chi-Square test indicates a significant difference in the proportions of respondents considering the presence of smugglers and brokers services to RSA as an enabling factor for irregular migration within migrant and non-migrant households, with a p-value of.002 (< 0.05). The presence of smugglers and brokers has a positive and significant impact on household decisions for irregular migration. The likelihood of irregular migration to RSA is 2.232 times higher with the assistance of smugglers and brokers compared to without their service. Irregular migration from Kembata-Tambaro and neighbouring Hadiya is facilitated by local smugglers known as "*delalas*" (brokers), as unanimously pointed out in in-depth interviews and FGD participants. Migration to RSA through the irregular system is always possible with the help of smugglers. The brokers provide potential migrants with migration information and experience, arrange the entire travel process, and facilitate work opportunities in RSA. Consequently, brokers are considered reliable service providers with affordable costs, time-saving benefits, and less bureaucracy compared to legal systems.

Results of in-depth interviews and focused group discussions

Discussion with participants in in-depth interviews and FGDs revealed that the major drivers of irregular migration are multifaceted, including economic, network and cultural factors. Some of the key factors frequently mentioned by participants include the desire to improve their livelihoods and support their families, the presence of brokers (*delalas*) who facilitate migration, a sense of relative deprivation compared to others, lack of job opportunities at home, and having family members already settled in RSA.

Economic drivers: Participants highlighted the lack of job opportunities and low wages as factors that drove the youth from the Kembata-Temabaro Zone to seek better economic prospects in RSA. These led to feelings of hopelessness due to limited employment opportunities, land scarcity, high population pressure and poverty. Migrant returnees, during in-depth interviews, emphasized that poverty was the main factor pushing them to migrate in search of a better life for themselves and to improve the living conditions of their families. In addition, participants noted the absence

of government initiatives to address unemployment, such as establishing industrial parks like those seen in other parts of the country. The bureaucratic and corrupt government system, characterized by nepotism and favouritism based on ethnicity and kinship further discouraged individuals from seeking employment opportunities at home.

The narrative of Girma (pseudonym), a 27-year-old deportee migrant, clearly depicts the perpetuation of irregular migration due to income gaps in the study area:

> *The primary reason for migration from this area to the RSA is economic. Unemployment and lack of land are serious issues, leaving young people like myself with no choice but to migrate. Therefore, young people like me have no option than migration. Look at me; I am in my mid-20s and have attempted illegal migration twice- one to RSA through Moyale and another to Europe via Sudan. Unfortunately, I was captured and deported in both instances. Despite these setbacks, I still aspire to migrate if given the opportunity.*

Potential migrants are also lured by the information they receive from family members and friends who have established businesses in the RSA, often through social media platforms such as IMO, Viber, and WhatsApp. The success of earlier migrants serves as a source of inspiration and attraction for those who have not yet migrated. Another important factor mentioned by the FGD participants concerning income gaps is the gradual devaluation of the Ethiopian birr. This has widened the gap in the exchange rate between the Ethiopian birr and the US dollar, resulting in higher amounts of money being remitted back home.

Network factors: play a significant role in facilitating irregular migration from the Kembata-Tambaro zone as pointed out by both in-depth interviews and FGD participants. Smugglers, locally known as *delalas* (brokers), play a key role in helping migrants travel to the RSA through irregular means. The brokers provide migrants with migration information, arrange travel processes and assist with finding work in the RSA. The enabling role of brokers is particularly important for migrants who use direct air flights to the RSA, as this bypasses the lengthy visa process either through bribery or the provision of forged travel documents. Participants emphasized that there is often not a sufficient reason to justify going through the legal system (obtaining a visa) for a trip to the RSA, especially in the absence of any foreign employment agreement between Ethiopia and the RSA. This highlights the

importance of brokers as the main facilitators and the only viable option for aspiring migrants to reach their desired destination in the RSA.

Cultural factors: The culture of migration in the area was considered another factor for irregular migration. One of the factors cited by participants is that being idle is socially unacceptable. Therefore, the youngsters had to migrate either locally mainly to plantation areas in the Awash Valley for seasonal labour work or to embark on irregular migration to the RSA. Another driving factor related to culture in the study area is the huge spending on the annual celebration of the festivity of *Meskel* (the finding of the True Cross). The lavish amount of money spent by migrants from RSA for their families on the *Meskel* celebration created a relative deprivation for households who do not have migrants' abroad. Thus, some resorted to mortgaging their land while others sold hybrid milk cows to finance their annual holiday. Relative deprivation is also witnessed in burial practices and the culture of serving mourners during farewells. Participants point out that there is no system of serving guests bottled water and feasts; rather, all these practices are introduced through the families of *Dabubes* or Southerners (they used to call those households having migrants in the RSA). In addition, the excessive amount of money spent on the burial cemetery and an iron fence put on the burial is considered an index of social status that in turn allures non-migrant households to migrate to overcome both economic inequality and the new social indices created by irregular migration to the RSA. Consequently, nowadays the cultural attitudes of the general public associate success mainly with the RSA.

5. DISCUSSION

This study explored the determinants of Ethiopian irregular migration from the Kembata-Tembaro zone to the RSA. Our findings indicate that being young, male, having a large family size, having lower educational status, the presence of family, social networks, and smugglers, all have a significant and positive influence on irregular migration to the RSA. On the other hand, being employed, married, and owning farmland decreases the likelihood of irregular migration to the RSA. We found that the age category of migrants lies between 25 and 34 years with a high likelihood of irregular migration to the RSA. This finding was similar to earlier studies (Petros, 2020; Ashenafi & Melese, 2020; Dennison, 2022) that support the view that most irregular migrants are young and in the most productive age

groups. According to our findings, the likelihood of irregular migration is higher among young unmarried groups than any other category. This result confirms a recent study along the Southern Route (IOM, 2022), which indicates that irregular migration from Ethiopia to the RSA is dominated by young unmarried (86%) males (99%) with low educational attainment, typically at a secondary level (30%).

Similarly, the study findings indicate that an increase in household size is associated with a higher probability of irregular migration from the Kembata-Tembaro Zone to the RSA. This result aligns with empirical studies on migration from the Hadiya and Kembata-Tembaro Zone conducted by Tsedeke and Ayele (2017) and Petros (2020), which provide strong statistical evidence of a positive association between an increase in family size and irregular migration. This is also supported by studies conducted by Zhao and Zhong (2019) in China and Mendola (2008) in Bangladesh, which found that the odds of migration increase with the number of households. In addition, we found that farmland ownership and employment have a negative influence on household decisions regarding irregular migration. These findings are consistent with previous studies that have shown that both owning farmland (Beneberu & Lemlem, 2023) and being employed (Dennison, 2022) decrease the likelihood of migration.

An interpretation of our findings reveals a connection between irregular migration decisions and the presence of family members and friends in the RSA. This suggests that the influence of social networks is a key factor in the widespread irregular migration of Kembatas to the RSA. These results confirm existing evidence (Beneberu & Lemlem, 2023; Girmachew, 2019) that the likelihood of irregular migration is higher for those who have contacts with a network of international migrants or returnees. Migrant networks play a significant role in perpetuating irregular migration through stronger ties and the provision of resources. Similarly, the model findings suggest that the likelihood of irregular migration to the RSA is 2.072 times higher with the service of smugglers and brokers compared to in the absence of their services. This finding further supports existing evidence provided by Fekadu *et al*. (2019) that irregular migration to the Republic of South Africa is enabled by a network of individuals known as *delala* (brokers). These brokers serve as unofficial facilitators of migration by offering information to those looking to migrate, coordinating the migration process, facilitating informal money transfers, and supplying counterfeit travel documents. Empirical studies by Belloni (2019) on the migration of Eritreans to Europe, Tekalign (2018), on the Eritrean-Sudanese Ethiopian

migratory corridor, Sanchez (2019), on women smuggling from Mexico to the USA, and İçduygu (2020) on the Eastern Mediterranean route to Europe also reveal that smugglers have emerged as a 'socially embedded collective practice' that facilitates the movement of people.

Our qualitative findings support the quantitative results of the study, showing that the drivers of irregular migration are multifaceted, including economic, network and cultural factors. Lack of employment opportunities and low wages are the main reasons for youth migration from the Kembata-Temabaro Zone to the RSA in search of better economic prospects. Poor living conditions, frequent droughts leading to crop failure and the bureaucratic and corrupt nature of government employment also contribute to irregular migration to the RSA. The qualitative findings also confirm that migration to the RSA through irregular means is facilitated by smugglers who provide information, arrange travel, and visa processes through bribery or forgery, and assist with border crossings. Our findings reveal that the income gaps created by remittance are another driving factor for irregular migration to the RSA. This can be observed during the annual celebration of *Meskel*, where excessive spending on marriage and burial ceremonies creates a sense of relative deprivation for households without migrants abroad.

CONCLUSION

This paper aimed to investigate the determinants of irregular migration of Ethiopians from the Kembata-Tembaro zone to the RSA. Our study shows that irregular migration of Ethiopians from the study area to the RSA is driven by variables such as gender, age, marital status, family size, employment, farmland ownership, presence of family members and friends in the RSA and the existence of smugglers. Our findings conclude that irregular migration to the RSA is caused by various factors including individuals' age, gender, marital status and education; meso-level factors such as the presence of family and social networks, brokers, and structural factors such as unemployment, land shortage, and increasing population size.

The results of this research need to be considered in the context of certain limitations. First, the cross-sectional design of the study makes it difficult to determine changes over time and the causal relationship between background characteristics and irregular migration. Second, as this study is confined to the Kembata-Tembaro Zone, it is limited in its ability to generalize to the entire Ethiopian migration to RSA. Therefore,

the results should be interpreted carefully and can only be generalized to communities with similar characteristics. Third, another limitation is the study was not able to make a comparative assessment of regular and irregular migrants to fully comprehend the differences between these two populations. Because such a comparison was not made, it is not possible to draw on data extracted from the study to make claims such as regular migration routes being impossible.

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REFERENCES

Abel, Y. (2023). The nature and patterns of international migration of Ethiopia. In I. Muenstermann, (Ed.) *The changing tide of immigration and emigration during the last three centuries*. IntechOpen.

Ashenafi, W. & Melese, G. (2020). Predictors of irregular international migration among youth in Jimma Zone, Southwest Ethiopia. *Ethiopian Journal of the Social Sciences and Humanities*, 16(1), pp. 27-45. https://doi.org/10.4314/ejossah.v16i1.2.

Belloni, M. (2019). *The big gamble: The migration of Eritreans to Europe*. University of California Press.

Belloni, M. & Tshabalala, X. (2019). On the key distinction between trafficking and smuggling: Views and implications from the Horn of Africa and Southern Africa. *In Forum on Crime & Society*, 10.

Beneberu, A. & Lemlem, F. (2023). Taking high-stakes venture to make ends meet? Determinants and impacts of international migration of Ethiopians to the Middle East. *Comparative Migration Studies*, 11(12). https://doi.org/10.1186/s40878-023-00338-z.

Castelli, F. (2018). Drivers of migration: why do people move?. *Journal of Travel Medicine*, *Perspective*, pp. 1-7. https://doi.org/10.1093/jtm/tay040.

Cooper, B. & Esser, A. (2018). Remittances in Ethiopia: Exploring barriers to remittances in sub-Saharan Africa (p. 4). *Centre for Financial Regulation & Inclusion*.

Creswell, J. W. & Clark, V. L. P. (2018). *Designing and conducting mixed methods research*. Sage publications.

de Haas, H. (2021). A theory of migration: the aspirations-capabilities framework. *Comparative Migration Studies*, 9(1). https://doi.org/10.1186/s40878-020-00210-4.

de Haas, H., *et al.* (Eds.). (2020). *The age of migration: International population movements in the modern world (sixth edition)*. Bloomsbury Publishing.

Dennison, J. (2022). Re-thinking the drivers of regular and irregular migration: evidence from

the MENA region. *Comparative Migration Studies*, 10(1), p. 21. https://doi.org/10.1186/s40878-022-00296-y.

Dereje, F., Meron, Z. & Fana, G. (2024). Migration as a collective project in the Global South: A case study from the Ethiopia-South Africa Corridor. *In The Palgrave Handbook of South-South Migration and Inequality* (pp. 201-221). Springer International Publishing. https://doi.org/10.1007/978-3-031-39814-8.

Dereje, F. (2022). Beyond Economics. *Zanj: The Journal of Critical Global South Studies*, 5 (1/2), pp. 35-58. doi: 10.13169/zanjglobsoutstud.5.1.0005.

ESS (2022). *Population Size by Sex, Region, Zone and Wereda*. ESS. Addis Ababa.

Fekadu, A., Deshingkar, P. & Ayalew, T. (2019). Brokers, migrants and the state: Berri Kefach "door openers" in Ethiopian clandestine migration to South Africa. Migrating out of Poverty, Working paper 56, pp. 1-35. https://www.migratingoutofpoverty.org.

Girmachew, A. (2021). Once Primarily an origin for refugees, Ethiopia experiences evolving migration patterns. *Migration Policy Institute*. https://www.migrationpolicy.org.

Girmachew, A. (2019). Migration patterns and emigrants' transnational activities: comparative findings from two migrant origin areas in Ethiopia. *Comparative Migration Studies*, 7(1), pp. 1-28. https://doi.org/10.1186/s40878-018-0107-1.

Gujarati, D. N. (2004). *Basic econometrics* (4th Edition). Tata McGraw Hill Book Company. New Delhi.

Hollstein, B. (2014). Mixed methods social networks research: An introduction. *Mixed methods social networks research: Design and applications*, 1, pp. 3-34.

İçduygu, A. (2020). Decentring migrant smuggling: reflections on the Eastern Mediterranean route to Europe. *Journal of Ethnic and Migration Studies*, 47(14), pp. 3293-3309. https://doi.org/10.1080/1369183X.2020.1804194.

IOM (2022). Migrating in Search of the Southern Dream – The Experiences of Ethiopian Migrants Moving Along the Southern Route. https://eastandhornofafrica.iom.int/regional-data-hub.

IOM (2021). World Migration Report 2022. In *International Organization for Migration (IOM), Geneva*. https://publications.iom.int/books/world-migration-report-2022.

IOM (2020). *Leveraging Migration to Recover Better from COVID-19 and achieve the 2030 Agenda* (Issue 2020, pp. 411-411). https://doi.org/10.18356/9789210056755c244.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Massey, D. S. (2019). The perils of seeing twenty-first century migration through a twentieth-century lens. *International Social Science Journal*, 68(227-228), pp. 101-104.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A. & Taylor, J. E. (1998). *Worlds in motion: Understanding international migration at the end of the millennium*. Clarendon Press.

Mendola, M. (2008). Migration and technological change in rural households: Complements or substitutes?. *Journal of Development Economics*, 85(1-2), pp. 150-175. http://www.sciencedirect.com/science/article/pii/S0304-3878(06)00127-1.

Meron, Z. (2020). *A study on child migrants from Ethiopia*: *IOM Mission in Ethiopia*. https://ronairobi.iom.int/regional-data-hub-rdh.

National Bank of Ethiopia (2023). Ethiopia: Macroeconomic and Social Indicators. Fourth Quarter Report. Addis Ababa.

Petros, B.G. (2020). An empirical study on irregular migration in Ethiopia: Policy perspective. *Public Policy and Administration Research*, 10(3), pp. 1-14. https://doi.org/10.7176/ppar/10-3-01.

Provera, M. (2015). The criminalisation of irregular migration in the European Union. *CEPS Paper in Liberty and Security in Europe No. 80*, 60-68. https://doi.org/10.4324/9780429467387-8.

Siegel, D. (2019). Human smuggling reconsidered: the case of Lesbos. *The 19ᵗʰ Cross-border Crime Colloquium*. doi:10.32631/ccc19.05.

SNNPR BoFED (2019). Annual Statistical Abstract of 2017-18. Hawassa: BoFED.

Spencer, S. & Triandafyllidou, A. (2022). Irregular migration. In P. Scholten (Ed.). *Introduction to migration studies*, 191. Springer. https://doi.org/10.1007/978-3-030-92377-8.

Tekalign, A. (2021b). *The state, families and disappeared migrants in Ethiopia. AHMR African Human Mobility Review*, 7(3), pp. 88-115. https://doi.org/10.14426/ahmr.v7i3.950.

Tekalign, A. (2018). Refugee protections from below: Smuggling in the Eritrea-Ethiopia context. *The ANNALS of the American Academy of Political and Social Science*, 676(1), pp. 57-76. https://doi.org/10.1177/0002716217743944.

Teshome, D., Bailey, A. & Teller, Charles H. (2013). Irregular migration: Causes and consequences of young adult migration from Southern Ethiopia to South Africa. *Paper Presented at the XXVII IUSSP International Population Conference*, pp. 157-200. https://doi.org/10.2307/j.ctt1t890t4.9.

Tsedeke, L. & Ayele, T. (2017). Logistic mixed modelling of determinants of international migration from the Southern Ethiopia: Small area estimation approach, American. *Journal of Theoretical and Applied Statistics*, 6(3), pp. 170-182. doi: 10.11648/j.ajtas.20170603.16.

UN DESA (2020). International Migration 2020: Highlights. In *International Migration 2020: Highlights*. https://doi.org/10.18356/9789210052689.

UNHCR (2022c). Operational data portal: Ethiopia situation-population dashboard. Geneva: UNHCR. https://data.unhcr.org/en/documents/details/91133.

UNICEF (2017). *Reimagining Migration Responses: Learning from children and young people who move in the Horn of Africa*.

Üstübici, A., İçduygu, A., Ergün, K., Ekhtiari, M., Cangönül, M., Thenot, E., Adhanom, T.,

Vlamis, C., Aslam, S., Fallon, A. (2023). *Comparative experiences of transit migration management*. MIGNEX Background Paper. Peace Research Institute Oslo. www.mignex.org/d081.

World Bank Group (2023). *World Development Report 2023: Migrants, refugees, and societies*. World Bank. doi:10.1596/978-1-4648-1941-4.

Yaro, J. A. & Setrana, M. B. (2024). The dynamics of South-South Migration in Africa. In *The Palgrave Handbook of South-South Migration and Inequality* (pp. 183-199). Springer International Publishing. https://doi.org/10.1007/978-3-031-39814-8.

Yendaw, E. (2021). Cross-border migration of itinerant immigrant retailers in Ghana. *Journal of International Migration and Integration*, 23(1), pp. 205-225. https://doi.org/10.1007/s12134-021-00839-9.

Yordanos, E. S. & Freeman, L. (2022). Shifts in the trend and nature of migration in the Ethiopia-South Africa Migration Corridor. *Zanj: The Journal of Critical Global South Studies*, 5 (1/2), pp. 59-75.

Yordanos, E. & Zack, T. (2019). Follow the money: Tactics, dependencies and shifting relations in migration financing on the Ethiopia - South Africa migration corridor. *Migrating out of Poverty*, Working Paper 63.

Zhao, J. & Zhong, H. (2019). A demographic factor as a determinant of migration: What is the effect of sibship size on migration decisions?. *Journal of Demographic Economics*, 85(4), pp. 321-345. doi:10.1017/dem.2019.13.

Appendix 1: *Summary of multicollinearity test*

SEX	.888	1.126
AGE	.682	1.466
MARS	.632	1.583
FMSZ	.813	1.231
EDUC	.805	1.242
EMP	.349	2.863
MONIN	.915	1.093
HOUSE	.606	1.651
FARM	.685	1.460
POVERTY	.588	1.700
POPPRESSURE	.478	2.094
JOBOPP	.559	1.790
BETTRERINC	.778	1.285
FAMMEMBERS	.496	2.018
NETWORK	.885	1.130
SMUGGLERS	.705	1.418