

Full Length Research Paper

Determinants of urban poverty: The case of Goba Town, Bale Zone, Oromia, Ethiopia

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This study aims to assess the primary causes of urban poverty in Goba City, located in the Bale Zone of the Oromia Region in Ethiopia. Data were collected from a representative sample of 384 households selected from specific kebeles in the study area using a combination of multistage and systematic sampling methods. The analysis of the data employed both descriptive statistics and a logit regression model. The binary logit regression model's econometric results showed that sex of the household head, education, access to credit, saving and asset value were found to be negative and statistically significant determinants of households' poverty. However, family size in adult equivalent and health status were found to have positive and statistically significant effects on poverty. Therefore, to effectively combat urban poverty, policy efforts should focus on gender empowerments, promoting education, promoting family planning, offering trainings, and facilitating access to credit services to start a business are some of the essential policy interventions.

Key words: Urban poverty, asset value, access to credit, saving, family size, Goba, Ethiopia.

INTRODUCTION

Over half of the world's population (54%) currently resides in metropolitan regions, up from 30% in 1950, in today's increasingly global and linked globe. The number and geographic distribution of the world's population will undergo more significant changes in the ensuing decades, with the world's population expected to be 66 percent urban by 2050 (UN, 2015). In keeping with the aforementioned statistic, one billion people-or one-third of the global urban population-live in slums today (UN, 2015). According to the World Bank (2023), the poverty headcount ratio in Africa in 2019 was 34.9% at \$2.15 per day (2017 PPP) (% of the population).

The recent data shows the headcount poverty rate decreased from 29.6% in 2010–11 to 23.5% in 2015–16, according to the trend in national poverty indexes. Comparatively, the poverty gap and severity indices are both reduced by 11% and 5%, respectively, while the incidence of poverty (headcount index) for 2015–16 is 19% lower than the index for 2010–11 (NPC, 2017).

It's not necessarily true that as poverty rates fall, so does the percentage of impoverished individuals. As a result, both the incidence and total population of the poor decreased. While the number of the impoverished people decreased from 25.1 million to 21.4 million, the overall

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population expanded from 84 million in 2010/11 to 110 million in 2019/20. This is a tremendous accomplishment considering that the population is rising at a rate of more than 2.5% year and that the number of the impoverished people is declining significantly from 1995-1996 (NPC, 2017; NBE, 2017).

Despite this, compared to metropolitan regions, poverty is still mostly a rural phenomenon. According to the poverty headcount index, rural poverty in 2015–16 was 27%, more than double the rate of urban poverty (15%). In addition, although the disparity in poverty between rural and urban areas had been closing until 2004/05, it began to grow following that year and was at 3.7% for urban against 7.4% for rural areas in 2015/16 (NPC, 2017). The government has also introduced Urban Productive Safety Net Program (UPSNP) since 2015/16 to support the poor and vulnerable urban households through provision of cash transfers, financial and technical support to access livelihood opportunities, and building institutional capacity. In 2020/21, around 625,135 urban residents benefited from the UPSNP (MoPD, 2022).

Urban poverty is strongly linked with absence of productive employment opportunities. According to PDC (2017), the headcount index shows that the poverty level in the Oromia area has decreased over time. In 1999/00, it was at 39.9, in 2004/05 it was 37, in 2010/11 it was 28.7, and in 2015/16 it was 23.9.

Contrary to all these accomplishments, literary studies conducted by many academics in select metropolitan areas of the nation showed that the number of urban poor is rising at an unheard-of rate. Despite this, the urban economy is only partially able to support the population. For instance, numerous studies on poverty have been conducted in Addis Ababa, and the majority of the results showed that the incidence of urban poverty in cities has significantly increased (Tizita, 2001; Fitsum, 2002; Meron, 2002; Abbi and Andrew, 2005; Tesfaye, 2006). Asella, Wukro, Nekemte, Wolaita Sodo, Debremarkos, and Debre Berhan are among the cities where studies on urban poverty have been conducted outside of Addis Ababa. These studies have been done by Sisay (2009), Araya (2010), Melese et al. (2017), Frew (2018), Debeli and Endegen (2019), and Meseret and Zelalem (2019), respectively. Their study also showed that urban poverty is very common in the places they each studied.

The primary metropolis and just a few minor secondary towns have been the focus of study thus far. Urban poverty research in medium-sized (urban regions with 50,000–10,000 residents) and historic towns like Goba are underfunded.

It is important to address the issue of reducing the impact of poverty in the country's medium-sized towns in general and in Goba town in particular. On how households can bridge the gap between their fixed income and the town's rapidly rising cost of living, there is no research-based advice. The economic activity and

social services of the Goba town are low and the overall living standard of the inhabitant is not in a good condition. This is due limited infrastructure and technical skill, lack of diversified opportunities (commerce, entrepreneurship), high unemployment and dependency ratio, sanitary problem and more of dwellers are engaged in occupations which have limited returns. This includes small-scale industries and in several petty businesses of preparing and selling the traditional drink-*tella*, *arekie*, and *tej* (GTPCO, 2018). The problems of the town are not limited only to such aforementioned issues; currently, more than 1500 poor and elderly peoples are receiving food aid from NGOs (Missionary Charity) found in the town.

In general, all of the aforementioned issues suggest that poverty is pervasive in the community, either directly or indirectly. The causes of the findings are not investigated, despite the fact that the issues are becoming more serious. Examining the socio-economic traits of Bale zone urban areas that have mostly gone overlooked by researchers and has not been the subject of a thorough socio-economic study. Therefore, the goal of this work is to close this intellectual gap. Additionally, poverty may vary from town to town, necessitating a study of each community separately rather than drawing broad conclusions from research on a small number of urban centers (Melese et al., 2017).

Such research is beneficial for decision-makers, notably administrators and stakeholders of other medium towns, as well as for developing efficient measures to reduce poverty in the town. The research can serve as a template to initiate specific studies for other medium towns, in addition to providing baseline data for creating a strategic plan for the town under consideration. On the other hand, despite the presence of numerous NGOs working in the region to help reduce poverty, their intervention is not research-based to understand the extent of poverty and its determinants to guide them in developing appropriate policies and strategies that benefit the majority of people, with the highest gap, and reach their goal. Therefore, the overall goal of this study is to pinpoint the key factors that influence urban poverty in the context of Goba town.

LITERATURE REVIEW

Theoretical literature review

The Welfarist school, the Basic Needs School, and the Capability school are the three primary schools of thought that can be found in writing about poverty (Degye, 2019).

The welfarist interprets "something" to mean financial security. Economic welfare and economic well-being are terms that can be used interchangeably (Lipton and Ravallion, 1995). Welfarists either directly or indirectly limit the broad concept of well-being to the common

economic concept of utility by using the term "economic well-being" as the measure of total consumption that determines utility. The utility itself is envisioned as a psychological experience produced by the consumption of a good or service, such as joy or the satisfaction of a demand. Another phrase occasionally used to describe financial security is "standard of living" (Ravallion, 1994; Tinbergen, 1991; Dorothée, 2004).

According to the Basic requirements School, a small group of items and services that have been explicitly chosen and judged to satisfy the fundamental requirements of all people constitute the "something" that is missing from the lives of the poor. The requirements in issue are considered "basic" because meeting them is recognized as a must for a high quality of life; they are not first seen as sources of happiness. Lipton is cited in Kabeers (1994) as saying that you must first "be" before you can "well-be" (CECI, 2001). For capability school, the "thing" that is lacking refers neither to utility nor to the satisfaction of basic needs, but to human abilities, or capabilities (CECI, 2001). Capability approach is an alternative to both the traditional utility-based approach and the specific deprivations approach has been proposed by Sen (Ravallion, 2016). Sen's goal was to create a new understanding of what is valuable to people on a global scale. Its origins can be traced back to the "welfarist" paradigm, which holds that social choice and welfare are solely based on individual utility (CECI, 2001).

Conceptual framework

The followings are among the key causes of poverty: Community-level characteristics, which include the availability of infrastructure (roads, water, and electricity) and services (health, education), proximity to markets, and social relationships. Household and individual characteristics, among the most important of which are: Demographic, such as household size, age structure, dependency ratio, gender of head; Economic, such as employment status, hours worked, property owned; Social, such as health and nutritional status, education, shelter (Haughton and Khandker, 2009, WBI, 2005). Figure 1 shows the conceptual framework.

DATA AND METHODOLOGY

Description of the study area

Goba town is located in the south east of Addis Ababa at about 445 and 15 km far from the zone capital (Robe). It is found at the foot of Bale Mountain. In absolute terms, Goba is situated approximately at 6°58'00"- 7°3'30"N latitude and 39°56'00"- 40°0'00"E longitude. Based on the current topographic map, the total area surveyed and incorporated as part of the jurisdiction of the town is 3875 ha (OUPI, 2012). Figure 2 shows the map of Goba town.

Research approach and design

The research is supported by both primary and secondary sources of data. Utilizing a questionnaire survey, the primary data was gathered from the sampled houses.

Secondary data sources were from the town administration office, Kebele Administrations and reports of different organizations (Central Statistical Authority, National Planning commission and National Bank of Ethiopia).

In the town there are about 50,342 and 13,606 population and households, respectively (Projection based on CSA, 2008). Sample size was determined per each kebele proportionally to the total number of households. Representative sample size is always determined by taking into account the level of precision, the level of confidence and the degree of variability in the attributes being measured. It is typically determined using statistical calculations. Following Kothari (2004) sample size was determined using the following formula as follows:

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

Where: n = required sample size. N = 10,488 (size of Population; number of households). Z = 1.96² (standard variant of confidence

interval at 95%); p = 0.5 (estimated proportion poor household in the study area); q = 1-p (estimated Proportion of non-poor household in the study area) and e = 0.05 (margin of error; since the estimate should be within 5% true value)

Model specification and description

Qualitative response regression models are often known as probability models. There are four approaches to developing a probability model for a binary response variable the linear probability model (LPM), the Logit model, the probit model, and the Tobit models are possible alternatives. However, using the LPM where the dependent variable takes either 0 or 1 is found to have several problems such as (1) non-normality of error term, (2) heteroscedasticity of the error term, (3) possibility of generate the predicted values lying outside the 0-1 range, which violates the basic tents of probability, (4) the generally lower R² values (Gujarati and Porter, 2009).

The Logit and Probit models are the most frequently utilized qualitative response models to address these issues. Most frequently, MLM (maximum Likelihood) approaches are used to estimate such models. The logistic regression model is non-linear; hence parameter estimation calls for an iterative logarithm (Gujarati and Porter, 2009). The probabilities are constrained between 0 and 1 in Probit and Logit models, which is a key benefit over the linear probability model. The non-linear relationship between the probabilities and the explanatory factors is also best fit by them. For discrete dependent variables, Logit and Probit models have been suggested by Gujarati and Porter (2009) as well as Maddala (1992). In most applications, the Logit and Probit models are quite similar, the main difference being that the logistic distribution has slightly fatter tails. That is to say, the conditional probability (P_j) approaches 0 or 1 at a slower rate in logit than in probit. Therefore, there is no compelling reason to choose one over the other. In practice many researchers choose the logit model because of its comparative mathematical simplicity (Gujarati and Porter, 2009). For this study, therefore, the logistic regression model was used.

A proxy variable used in the econometric portion of the research indicates whether or not a household is poor. The poverty line is used as a cutoff point when determining the value of this proxy

variable, which is expressed in binary form that is.

$$y = 1 \text{ if } Y < Z; 0 \text{ if } Y \geq Z$$

Where y is a categorical dependent variable, which stands for poverty status of the household with respect to Z , Z is poverty line and Y is real adult equivalent consumption.

Specification of the logit model

The dependent variable of the logit model accepts a binary answer, that is, $y = 1$ if a given household is poor and $y = 0$ if not, in accordance with Gujarati and Porter (2009) and Maddala (1992) specifications. Probabilistically, it can be expressed as:

$$\begin{aligned} P(y_i = 1) &= P_0 \\ P(y_i = 0) &= 1 - P_0 \end{aligned} \quad (1)$$

This merely illustrates that a household's likelihood of being poor is P_0 and its likelihood of being non-poor is $1-P_0$. This can be expressed in logistic distribution equation form as

$$P_0 = \frac{e^{(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i)}}{1 + e^{(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i)}} \quad (2)$$

$$P_0 = E\left(y_i = \frac{1}{X_i}\right) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i)}} \quad (3)$$

Where P_0 is the probability, e (2.718) is an irrational number, β_0 is the intercept term, and β_i are the predictor X_i coefficients. We see the proxy variable y_i taking the values $y_i=1$ if the person is poor and $y_i=0$ if the person is not poor, despite the fact that P_0 is an unseen (latent) variable. Equation 3 can be expressed as follows:

$$P\left(y_i = \frac{1}{X_i}\right) = \frac{e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i}}{1 + e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i}} \quad (4)$$

Equation 4 is expressed in terms of event probability, that is, the probability that $y_i = 1$ occurs. The non-event probability can easily be derived from the above equation. Since y_i takes only 0 and 1, the probabilities of $y_i = 1$ and $y_i = 0$ should sum up to 1. Therefore, the non-event probability was;

$$\begin{aligned} P(y_i = 0/X_i) &= 1 - y_i = 1/(y_i = 1/X_i) \\ P_0 &= E\left(y_i = \frac{0}{X_i}\right) = \frac{1}{1 + e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i}} \end{aligned} \quad (5)$$

By taking Equations 4 and 5, we can write in terms of odds (probability ratio) as;

$$\frac{P[y_i=1/X_i]}{P[y_i=0/X_i]} = \frac{P[y_i=1/X_i]}{1 - [y_i=1/X_i]} = \frac{[1 + e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i}][e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i}]}{[1 + e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i}]}$$

$$e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i} \quad (6)$$

The chances against being poor, or the ratio of the likelihood that a certain household is poor to the likelihood that it is not, are what make up the equation. Using the natural logarithms as a starting point, Equation 6 can be linearized.

$$Y_i = \ln \left[\frac{P(y_i=1/X_i)}{1 - (y_i=1/X_i)} \right] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \quad (7)$$

Y_i is the log odds ratio, which has a linear relationship to X_s . If probabilities rather than odds are what we are interested in, we estimate the coefficients β_i typically; the logit model can be expressed as follows for estimating purposes:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + u_i \quad (8)$$

Where, Y_i stands for the status of the household with reference to the poverty line β_i 's are coefficients of the predictors X_i . i stands for households run from 1 to n . X_i 's predictors. u_i stands for error term.

Hypothesis and definitions of variables

The dependent variable of the model (PVSTATUS)

The urban household's poverty status, which is the dependent variable for the logit analysis is a dichotomous variable representing the status of household poverty. To categorize households into two groups, the total household consumption expenditure per AE per day is compared. This minimum level of the expense required per AE per day is compared based on the amount of calories required by AE (2200 Kcal/AE/day) plus the minimum expense needed for non-food. Therefore, urban households whose consumption expenditure per AE per day is less than the threshold were classified as being poor, non-poor otherwise. It was represented in the model as 1 for poor and 0 for non-poor urban households.

Explanatory variables

Once the poor have been identified, the next step is to identify characteristics that are correlated with poverty and that can be used for targeting interventions. Such important household characteristics, which potentially affect the urban household's poverty status, were identified using statistical procedures. Hence, to analyze determinants of poverty, urban household poverty was hypothesized to be a function of independent variables expected to have an association with households' poverty status. The selection of independent variables used for binary logit regression was based on the past research findings and published literature related to the study. The major variables expected to influence the household to be poor or non-poor are explained below.

Age of the household head (AGE²)

This refers to the ages of the household head in years. A quadratic term of the age of the household head is used to capture the possible life cycle effects. The older the household head the less contribution they make to the livelihood of the family due to diseconomies of age. On the other hand, young household heads are assumed to accept a new method of business more quickly and

take relatively better initiative for improving the productivity of their enterprise which ultimately generates better income. Therefore, it was hypothesized that the probability of being poor decreases up to a certain level of age and beyond that it starts to increase. On the other way round, welfare increases initially with age and declines after some period of age.

Sex of the household head (SEX)

This is a reference to the household head's sexual orientation. It is a dummy variable that has a value of 1 when the household head is a man and 0 when otherwise. A household head is a person who controls or provides financial assistance for a household, or who is seen as such by other home members due to their advanced age (CSA, 2020). Male-headed households are better able to draw labor than female-headed ones. Compared to households headed by women, households headed by men have greater access to and control over productive assets. Therefore, it was assumed in this study that homes led by men would be less likely to be impoverished than households headed by women (Aduugna and Wagayehu, 2012; Mulatie and Andualem, 2019).

Educational level of the household head (EDUC)

It is a continuous variable that represents the household head's years of schooling. People who have received an education are better prepared to make a living. It has an impact on a city dweller's capacity to boost production through the use of modern company management strategies, information, and technology. It also greatly influences how decisions are made in households (Sisay and Tesfaye, 2003). Many academics contend that education is a prerequisite for providing people with the skills necessary to support themselves and that it is inversely correlated with poverty. According to the study's hypothesis, the likelihood that the household head will be impoverished diminishes as the household head's educational level rises (Meseret and Zelalem, 2019).

Family size (FSIZEAE)

This is the total number of family members living together as a single unit, converted to adult size. A large family requires a lot of production and consumption to feed all of its members, which results in a higher dependence ratio and covert unemployment. In turn, this would have an impact on the family's welfare. The likelihood of resource sharing in terms of consumption results in an increase in the stress on the restricted amount of food that is available at the home level as the family size or the total number of adult equivalents increases (Alemayehu et al., 2008; Etim and Solomon, 2010). This led to the hypothesis that, in the study area, Mulatie and Andualem (2019), family size and poverty level are positively correlated.

Economic dependency ratio (EDR)

According to Shryock and Siegel (1976), referenced in CSA, 2020, the ratio of non-workers to workers, or the economically inactive population to the economically active population of all ages, may be used to establish the economic dependency ratio. Compared to the age dependency ratio, this ratio offers a more accurate picture of the financial dependency burden. Due to the significant reliance burden, households with large numbers of economically inactive family members typically have lower incomes than those with smaller family sizes (Runsinarith, 2011; CSA, 2020). According to the ILO's definition of employment, a "worker" is anyone who is 15

years of age or older who clocks at least one hour of labor each week (ILO, 2000). A better indicator of the share of the dependent population is the economic dependency ratio (EDR), which compares the number of non-workers to the number of workers in a certain economy. Therefore, it was expected that a family's level of economically dependent family members (high EDR) had a positive correlation with the poverty level of the household.

Employment status (EMSTAT)

This is a reference to the type of work that the head of the home does. In numerous studies on urban poverty, the sort of economic participation has also played a significant role in predicting the likelihood that a household will become impoverished. With regard to the household head's various economic commitments, there are considerable disparities in the likelihood of poverty. Compared to households led by a wage earner, households with the self-employed head are less susceptible to poverty (Melese et al., 2017). Employment status is a dummy variable in this study that is divided into self-employed and other (which includes paid employees, temporary workers, jobless individuals, and individuals who are economically inactive). It takes the value of 1 if the household head is self-employed (own account) and 0 otherwise.

Therefore, it was expected that poverty would be negatively impacted if the head of the home worked for themselves.

Saving habits of the household (SAVING)

Compared to non-savers, saving minimizes the likelihood of becoming poor. Because they have a solid foundation for investing in successful enterprises and managing transient market shocks, households that save money and use credit have a better chance of escaping poverty (Mohammed, 2017; Meseret and Zelalem, 2019). Savings, which are funds left over after consumption, are necessary for additional investments or security. Savings is a dummy variable in this study that indicates whether or not a household has a monthly deposit (savings) in formal and informal financial institutions (1=have saving, 0 otherwise). Families who have saved money are thought to be less prone to fall into poverty.

Remittance (REMITT)

One of the continuous explanatory variables that can be used to measure poverty represents whether or not the household head receives remittance (1 is yes and 0 is no). Urban areas inside the nation and relative economic support from overseas both help to lower the poverty status of households. Remittance-receiving households are thought to have a lower risk of becoming impoverished.

Diversified income source (DIVINCS)

According to Alderman and Paxson (1992), one strategy households utilize to reduce household income instability and guarantee a minimum level of income is income diversification. It is assumed that consumers diversify their income sources to reduce the shortage in spending in the absence of developed and efficient credit markets and insurance programs (Fredu, 2008). A key goal of the plan for reducing poverty and ensuring food security is to diversify and boost household income sources. It was hypothesized that household heads that have diversified income sources have a higher likelihood of not being poor. In this study, the dummy variable's dummy variable represents whether the household head has a diversified income source or not (1 = has diversified (more

than one) income sources, and 0 otherwise.

Access to credit service (CREDIT)

It is a dummy variable that has a value of 1 when an urban household uses credit and a value of 0 when they don't. Credit is seen as a crucial source of funding for the household's commercialization. One of the ways that urban residents might escape extreme poverty is through rational and accessible financial services. Another study confirms the role that financial services have played in facilitating transitions out of poverty. Credit can be used to increase output and the scope of businesses that generate profits (Mosley et al., 2007). Effective credit services, as is widely known, assist the impoverished by providing an opportunity to own significant capital assets. Therefore, it was anticipated that households who used credit would be less likely to be poor than those who do not. Due to its ability to address immediate liquidity issues, access to credit is anticipated to have a favorable impact (Dereje and Haymanot, 2018). In the event of a cash shortage in the home, credit can also be employed as a consumption smoothing mechanism (Meseret and Zelalem, 2019).

Food aid (FAID)

It is a dummy variable that has a value of 1 when a household receives food assistance and 0 when it does not. Food assistance can cause dependency in households, which lowers their motivation to become self-sufficient in food and escape the cycle of poverty. Here, the term "dependency syndrome" is used to describe a state in which a person only seeks assistance and shows little interest in pursuing alternative sources of income, such as wage work or small-scale business ownership (Teshome, 2009). There are a number of factors that deter household assistance. These are long-term recipients of relief help who favor getting aid over finding other methods to cope (Lind and Jalleta, 2005). Long-term relief assistance deters people from working in agriculture or other labor-intensive industries. As a result, it is anticipated that food aid will positively relate to household poverty status.

Asset ownership value (ASSET)

The term "property" refers to a household's material possessions, such as its housing, land, cultivated areas, equipment, machinery, buildings, automobiles, home appliances, and other durable things, as well as its financial holdings, such as its liquid assets, savings, and other financial assets. For economic and social development, growth, the reduction of poverty, and governance, land concerns are of utmost importance. In both rural and urban places, access to land is the cornerstone of economic and social existence (Fiseha, 2009; Meseret and Zelalem, 2019). A family with a variety of assets can rise beyond the poverty level. Land and livestock ownership had a significant favorable impact on the likelihood that a household will not be poor (Dawit, 2011; Babu and Reda, 2015). It is anticipated that household asset values would contribute to the decline in poverty. It is expected that households with assets, in various forms, are less likely to be poor than those without them. As a result, possessing assets is strongly correlated with poverty in metropolitan regions.

Household health status of the household (HESTAT)

A person's state of health determines their quality of life; they will have a low standard of living if their health is poor. It's very likely that the family may experience poverty if the head of the home or

other family members are ill regularly with serious chronic conditions. The likelihood that the household would become poor rises as the number of members with chronic illnesses grows (Sisay, 2009). People who are not in good health are feeble and unproductive. So it seems to reason that poor health would contribute negatively to urban poverty. The relationship between a household's poverty level and the proportion of sick families among its members was hypothesized to be favorable.

Access to own-metered electricity (ELECTRIC)

It indicates if a household member has access to amenities like their own metered power or not (1 if they do, 0 otherwise). The homes with access to their own metered energy service are thought to have a detrimental impact on poverty.

Social capital (Ikub and Iddir)

Social institutions can be viewed of as several facets of social capital and include family systems, neighborhood associations (like Ikub and Iddir), and networks of the destitute. This is a characteristic of social capital that a household has access to through participation in networks, social relationships, and affiliations within the community (Meseret and Zelalem 2019). A broader meso-perspective links social capital to groups in the local community, families, and underlying norms (such as trust and reciprocity) that promote coordination and cooperation for mutual gain. If the head of the household is a member of Ikub, it receives a value of 1, and if not, a value of 0. The household head that belongs to Ikub and/or Iddir is thought to have a lower probability of being indigent.

RESULTS AND DISCUSSION

Setting poverty line

The truth is that there are two poverty thresholds: the food poverty line and the general poverty line. The food poverty line is the sum of money needed to buy a "typical" basket of food items in the study area that provides the bare minimum number of calories, while the general poverty line is a higher threshold that permits the purchase of both that basket of food items and a "minimal" number of nonfood items. As was previously mentioned, both the food and overall poverty lines were determined for this study using the cost of basic necessities technique, which was based on the detailed process published by Ravallion and Bidani (1994) and FAO (2005a,b). With this justification for the CBN, the next steps were taken to determine the poverty line.

Three procedures are used to determine poverty lines: (a) Putting together a food basket that provides 2200 calories per day for a year; (b) figuring out how much this basket of food would cost; (c) figuring out the general poverty line, which adds money to the food poverty line so that non-food items can be purchased.

The poverty line's starting point is predicated on the idea that the average Ethiopian needs 2200 calories per day to be properly fed. Although the number of calories needed varies by age, sex, and physical activity, the

average overall population groups comes out to be around 2200 (PDC, 2017). As a result, the poverty line in this study was established based on the cost of 2,200 Kcal of food consumed daily per adult, plus a small provision for necessary non-food items.

Since 1995/96, the CSA and MoFED have used the minimal amount of calories (2200 Kcal) needed for an adult to undertake daily tasks, which was established in the context of Ethiopia.

With this presumption, the question that has to be answered is: What food basket delivers 2200 calories per day and conforms to average study area food consumption patterns? The households were separated into five equal-sized groups called "quintiles" in accordance with their per capita consumption expenditures in order to respond to this question. The 20% of the population with the lowest per capita spending make up the first quintile, followed by the 20% of the population with the next lowest expenditures in the second quintile, and so on. Then, a suitable basket of food items that are primarily consumed by the poor (the lowest 20% of the population) and represent the research area was customized and chosen. Some of the food items were adopted from PDC (2018), but most of the consumption groups (basket of goods) were created from scratch. In order to estimate the amounts of different food items consumed by urban families, the consumption data from the household survey was collected to reflect the general pattern of food consumption at the district/town level. A pricing questionnaire was used in the study, and the monthly market analysis report from the market development office of Goba town was used to supplement the price data.

The first step is to select a basket of food that is normally consumed by the vast majority of the poor in order to define the food poverty line. 36 food items have been identified from survey data, with the lowest 20 percent of households serving as a reference household that is thought to be typical of the poor. After that, the food products consumed by reference group families were listed and given the proper unit of measurement of weight. The amount that each adult individual receives in a month is then determined by dividing the weighted bundles of food items consumed by a household in a month by the corresponding adult equivalent unit of the household. All food per adult units consumed in a month were then divided by 30 days to determine the daily food requirements for each adult equivalent unit in the household. Total calories were established based on average consumption and they were compared to the predetermined daily minimum of calories needed for an adult equivalent. The third column of figures in Table 1's third row more precisely displays the actual average food quantities consumed per adult equivalent. According to the fourth column of Table 1, these quantities of food products give 2192 calories per person per day. All of these quantities were multiplied by a factor of 1.0036

(=2200/2192) to produce a basket of foods with the same consumption patterns that provided 2200 calories. These "adjusted" amounts are displayed in Table 1's sixth column. The average consumption was correspondingly scaled up to obtain the lowest calorie intake after this modification. The mean local price was used to determine the value of each item in the reevaluated average consumption basket (Kcal). After being priced, the associated total outlays were calculated; this amount of outlays is the food poverty line.

The food poverty threshold was determined to be birr 39.25 per day per adult equivalent, or 14326 birr per adult per year. The food poverty limit for Goba Town is significantly higher than the average food poverty lines for regional and national urban areas for the years 2015–16, which were respectively Birr 9133 and Birr 8376 (PDC, 2018).

The amount of money needed to buy a basket of food items that complies with the study area's food consumption habits and yields 2200 calories per day is given by the food poverty level outlined above. But there is no money left over for requirements other than food. Although almost everyone would concur that there are significant non-food requirements as well, such as the need for clothing and some form of shelter, it is unclear how to set minimal standards for non-food needs because, unlike food needs, non-food needs lack a biological or nutritional basis (WB, 2005).

Following the computation of the food poverty line, the method used in this study to determine the total poverty line was to look at the non-food spending of households whose food expenditures were near to the food poverty line.

Nonfood needs can be defined as the nonfood expenditures of households whose food expenditures is equal to the food poverty line. This is based on the assumption that households balance their food and nonfood needs, so households that are just at the point of meeting their food needs are also assumed to be just at the point of meeting their nonfood needs.

The entire poverty line was determined to be ETB 48.47 per day or Birr 17692 per year for the adult equivalent. It is the bare minimum necessary to sustain a livable standard of living. Similarly, the food poverty line and total poverty line are both significantly higher than the regional (Oromia) and national poverty lines, which are based on a basket of food items that provides 2200 Kcal per adult per day using 2015–16 constant prices and are Birr 12022 and Birr 12391 per adult per year, respectively, according to PDC (2018) for the year 2015–16. The time lag between the research and the data collection as well, the current unchecked inflation in the nation as a whole and Goba town in particular may be to blame for this discrepancy (the high food and total poverty line documented).

However, it is somewhat below the average poverty line for urban Oromia and Ethiopia, calculated by PDC

Table 1. Consumption basket used to compute food poverty line.

Food items	Kcal needed to get 2200 kcal**	Average consumption /day/AE/g	Kcal/ day/AE	Price/ 100g/mlt	Re-evaluated daily calories/AE*	Value of PL/day/ in ETB
Cereals un-milled	302.80	278.24	959.93	2.01	963.19	5.58
Cereals milled	1,153.58	58.51	212.99	3.79	213.72	2.21
Pulses un-milled	80.32	15.84	54.33	2.65	54.52	0.42
Pulses milled/split	82.75	46.88	162.21	6.42	162.77	3.01
Oil seeds	6.98	0.00	0.00	0.00	0.00	0.00
Cereals preparations	0.73	6.42	23.37	2.37	23.45	0.15
Bread, Prepared foods	31.66	8.25	17.17	6.55	17.22	0.54
Meat	7.20	9.32	18.36	3.58	18.42	0.33
Fish	0.24	0.00	0.00	0.00	0.00	0.00
Milk, cheese and egg	15.50	148.37	176.56	6.77	177.16	10.05
Oils and fats	13.63	31.03	274.31	7.56	275.24	2.35
Vegetables	36.62	104.43	44.90	6.44	45.06	6.73
Potatoes, tubers	1.27	31.16	20.88	2.50	20.95	0.78
Fruits	23.38	61.12	34.84	3.95	34.95	2.41
Spices	392.07	20.13	52.15	10.45	52.32	2.10
Coffee/Tea	22.36	13.56	6.37	12.19	6.39	1.65
Salt, sugar	28.93	34.66	134.12	2.68	134.57	0.93
	2200		2192		2200	39.25

*Column 6 Obtained by multiplying each item in column 4 by the ratio between the minimum caloric intake (2200) and the caloric intake from average consumption (2192).

Source: **Adopted from PDC (2018) and all the other was computed from the survey data (2022)

(2018) for the same year, at Birr 18080 and Birr 18518 per adult, respectively.

Demographic characteristics and poverty

Sex of the household head

The phenomena of the feminization of poverty, which is considered to exist if poverty is more common among households headed by women than among households headed by males, has been studied by a number of academics in the literature. Additionally, many of them have hypothesized that women are more likely to lead

poorer homes than males do, in part because women have less access to education than men do. Women are discriminated against in the workplace and are paid less than men. Women generally aren't given the same opportunities to exercise them as males are in various ways (Meron, 2002; Sisay, 2009; Araya, 2010; Teshome and Sharma, 2014).

When examining the sex makeup of the household heads in this study, 273 (71.09%) are families with male heads, while the remaining 111 (28.91%) are homes with female heads. The results indicate that 51.35% of all households with female heads live in poverty. Additionally, there is a substantial correlation with the likelihood that a

household was impoverished when the female was in charge at 99% confidence range. This suggests that there is a statistically significant link between low-income household heads and families with female heads. As a result, someone living in a household headed by a woman is more likely to experience poverty in Goba Town than someone living in a home headed by a man (Table 2).

Age of the household head

Many academics think that poverty rates rise as people get older. This is due to the fact that an

Table 2. Poverty Levels based on Sex.

Sex of household members	Poverty level				Total sample	
	Non-poor		Poor		Frequency	%
	Frequency	Percent	Frequency	Percent		
Male	214	78.61	59	21.61	273	71.09
Total	268	69.79	116	30.21	384	100
Pearson chi-square	33.105					
P	0.000					

Source: Computed from Survey Result (2022).

Table 3. Poverty profile based on age category.

Age category	Poverty level				Total sample	
	Non-Poor		Poor		Frequency	Percent
	Frequency	Percent	Frequency	Percent		
15-30	24	88.89	3	11.11	27	7
31-45	86	78.18	24	21.82	110	28.65
46-65	137	66.83	68	33.17	205	53.39
Above 66	21	50	21	50	42	10.94
Total	268	69.79	116	30.21	384	100
Variable	Mean	SD	Mean	SD	Mean	SD
AGE	53.75	11.08	48.44	12.60	50.04	12.39

***Significant at 1% probability level.

Source: Survey result, 2022.

individual's productivity declines as they age, yet they still have some savings to make up for the loss in income and production. Others counter that older age is associated with increased productivity and has a favorable impact on welfare. The two arguments presented above are both false, according to a third point of view. This is due to the possibility that there may be a nonlinear link between age and poverty. Due to the fact that salaries would be low when people were young, grow around middle age, and then decline once again (Garza, 2002). The household head's age was not shown to be significant in this study in either linear or quadratic terms. As a consequence of categorizing the households' ages as 15–30, 31–45, 46–66, and over 66, the study's findings are displayed in Table 3. As a result, the prevalence of poverty is higher in the age groups of 46 to 65 and above 66, respectively, at 50 and 33.17%. While the age groups of 15–30 and 31–45, respectively, have the lowest prevalence of poverty (11.11 and 21.82%, respectively). The sample household heads' average age was 50.04 years, with a minimum age of 20 and a maximum age of 83. The average age of household heads was 48.44 for non-poor households and 53.75 for poor households. According to the statistical analysis, there is a significant difference in the mean ages of household heads in the poor and non-poor categories at the 99% level of confidence (Table 3).

Educational status

Human capital is raised through education, which raises labor productivity and income. Thus, the majority of empirical studies on poverty concluded that education has a negative impact on poverty, though the degree of the impact varies depending on the socioeconomic context in which the study is conducted (Alemayehu et al., 2001; Esubalew, 2006) using various analytical techniques as discussed earlier in this paper. Table 4 shows that the most important element that is linked to poverty is the degree of education, particularly the secondary and higher education levels. The largest likelihood of becoming poor is caused by illiteracy or a lack of education. The greatest educational level of household heads has a considerable impact on the wellbeing of households, according to the Goba town survey data, which is consistent with the econometric finding.

The household head's educational background is divided into the following categories in this study: Illiterate (may or may not be able to read and write), Elementary School (1-6), Junior Secondary School (7-8), Secondary School (9-12), and Higher education (which includes the technical vocational, certificate, college diploma, first degree, and above).

Table 4. Poverty profile based on educational level.

Educational level by category	Poverty Level				Total sample		
	Non-Poor		Poor		Frequency	%	
	Frequency	Percent	Frequency	Percent			
Illiterate	2	20	8	80	10	2.60	
Elementary	17	30.91	38	69.09	55	14.32	
Junior	33	52.38	30	47.62	63	16.41	
Secondary	74	72.55	28	27.45	102	26.56	
Higher Education	142	92.21	12	7.79	154	40.1	
Total	268	69.79	116	30.21	384	100	
Variable	Mean	SD	Mean	SD	Mean	SD	t-test
EDUC	12.25	3.58	7.67	3.57	10.87	1.46	11.54***

***Significant at 1% probability level.

Source: Survey result, 2022.

According to this category, as shown in Table 4, roughly 154 (40%) of all household heads attended higher education, 102 (26.56%) of households attend secondary school, 63 (16.41%) attend junior high, 55 (14.32%) attend elementary school, and 10 (2.6%) of households never attend any school. Thus, the majority of households experience poverty, with the exception of those who have higher levels of education. 80% of those who live in poverty never attend any kind of school and 69% of household heads only finish elementary school. However, among those who have completed secondary school and higher education, only 7.29 and 27.45% of household heads are considered to be below the poverty level, respectively. In addition, the mean educational status (years of schooling) for the poor was 7.67 whereas it was higher for the non-poor, coming in at 12.25 with standard deviations of 3.57 and 3.58, respectively. The sample households' total mean educational status was 10.87, with a standard deviation of 4.14. According to the statistical analysis, there is a significant difference in educational attainment between the two poverty groups at a 99% confidence level (Table 4). This makes it clear that the likelihood of respondents being wealthy rises as respondents' years of education do. The household head's educational background is therefore determined to be a significant factor in determining the prevalence of poverty in the research area.

Household size

The size of the household is strongly connected with poverty, as shown by the econometric results, and homes with larger families are more likely to become impoverished. The similar conclusion was reached after reading Sisay's (2009) and Tesfaye's (2006) books. Contrary to the econometric findings, the survey findings in Goba show that as the size of the family grows, so does the incidence of poverty up to a certain number of

family members before it begins to decline. It also shows increases as family size grows. This implies that the poverty level is inversely correlated with family size. Cross-checking the survey findings reveals that households' percentage of poverty is higher in households with a size of less than three and bigger than or equal to seven, and is, respectively, about 33 and 34.48% (Table 5). While the lowest percentage, 28.28%, is seen in homes with an average family size (3–4 family members). The average family size in the sample used for this study is 4.29, and the average number of adults is 3.69. The average family size was 4.28 for the poor and 4.29 for the non-poor, with standard deviations of 1.48 and 1.45, respectively, for each group. The respondents' families varied in size from one to ten, with one being the smallest and one being the largest. According to the statistical study, there is no appreciable variation in the average family size between the poor and non-poor (Table 5). In this instance, further research into the number of families within a family demonstrates that whether it is low or high, it makes little difference to the town's overall prevalence of poverty.

Econometric analysis

A dichotomous dependent variable, PVSTATUS (Household Poverty Status), was utilized, with an estimated mean value of 1 signifying the chance of being poor and 0 signifying non-poverty. The binary logit model was then used to conduct analysis on a set of 10 dummy variables and six continuous explanatory variables. These variables were chosen in accordance with theoretical justifications and the findings of several empirical investigations.

Eleven explanatory factors that significantly predict the dependent variable (at levels of significance of 1, 5, and 10%) are therefore chosen for the model analysis. These variables include the household head's sex (SEX), the

Table 5. Estimated poverty by family size.

Number of families per HH	Poverty level				Total sample	
	Non-poor		Poor			
	Frequency	%	Frequency	%	Frequency	%
1-2	22	66.7	11	33.33	33	8.59
3-4	142	71.72	56	28.28	198	51.56
5-6	85	68.55	39	31.45	124	32.29
>=7	19	65.52	10	34.48	29	7.55
Total	268	69.79	116	30.21	384	100
Variable	Mean	SD	Mean	SD	Mean	SD
Family size	4.28	1.48	4.29	1.45	4.29	1.46
						t-test
						0.74

family size measured in adult equivalents per household (FSIZEAE), the head's education (EDUC), employment status (EMSTAT), the household's savings practices (SAVING), the household's sources of diverse income (DIVINCS), the household's ability to access credit services (CREDIT), the household's IKUB membership (IKUB), the health of the household members (HESTAT), and asset value (as the remaining six explanatory variables were found to have no significant influence on poverty status of the households.

The characteristics that are inversely connected with the likelihood of being poor include the sex of the household head, education, employment status, saving, diversified income source, credit, lkub, and asset value, as shown in Table 6.

While the likelihood of being poor is positively connected with family size and the health of the households. The independent variable's negative coefficient value indicates that, for every unit rise in the independent variable, the risk of being poor dropped by roughly the same amount. This reveals a negative association between poverty and the independent variable. Here is a description of these variables: -

SEX (Sex of the household head)

One of the demographic factors that were projected to affect poverty was the gender of the household head, with male-headed families being expected to be non-poor and female-headed households being more likely to be poor. The likelihood of being poor was inversely correlated with the sex of the household head, and the coefficient is significant at less than 5% level. Male household heads have lower odds of being impoverished than their female counterparts, assuming all other factors are held constant. This difference is 0.409 times smaller than that of their counterparts. The marginal impact (-0.0405) of the variable demonstrates that the risk of a household being poor lowers by 4.1% when a male is the head of the household. This conclusion may be explained by the fact that households led by women have less

access to social and productive resources, which has an impact on their ability to produce and how resources are allocated within the home. The results are in line with those of Meron (2002), Sisay (2009), Melese et al. (2017), Frew (2018), and Mulatie and Andualem (2019), who found that households headed by women are the most susceptible and afflicted by poverty.

FSIZEAE (Family size in adult equivalent)

The urban household with a big family size in terms of AE was predicted to have a favorable association with poverty. Family size has a favorable effect on the likelihood that a household will become impoverished and was determined to be statistically significant at the 1% level of significance. The probabilities of the household being poor rise by a factor of 2.472 as the family size increases, assuming all other factors remain constant. This implies that if family size increases at the adult equivalent, the likelihood that a home will be poor will also rise. The marginal effect (0.0337) indicates that as the number of family units in a household increases by one, the likelihood of being poor rises by 3.37%, holding all other variables constant. Similarly, Frew (2018), Debeli and Endegen (2019), Mulatie and Andualem (2019), and others also came to the same conclusion that family size increases the likelihood that a home will be poor.

EDUC (Educational status of household head)

The variable is inversely connected with the likelihood of being poor and the coefficient is statistically different from zero at the 1% level, making education one of the factors impacting poverty status in this study. When all other factors are held constant, the odds of being poor reduce by 0.828 when the household head's education degree rises by one unit.

According to the marginal effect (0.0071), for each additional grade of education attained by the head of the

Table 6. Logistic regression output.

Independent variable	Coefficient	St. Error	t-value	Marginal Effect
AGE2	0.0001	0.00001	0.44	0.0001
SEX	-0.8929	0.452	-1.98**	-0.0405
EDUC	-0.1892	0.062	-3.04***	-0.0071
FSIZEAE	0.9050	0.189	4.79***	0.0337
EDR	0.0300	0.165	0.18	0.0011
EMSTAT	-0.8250	0.400	-2.06**	-0.0312
ASSET	-0.0371	0.007	-5.13***	-0.0014
SAVING	-1.0891	0.467	-2.33**	-0.0435
REMITT	0.4608	0.430	1.07	0.0173
FAID	-0.9353	0.682	-1.37	-0.0255
DIVINCS	-2.0397	0.506	-4.03***	-0.0934
CREDIT	-1.1805	0.411	-2.87***	-0.0456
IKUB	-1.3704	0.467	-2.94***	-0.0606
HESTAT	0.4050	0.203	1.99**	0.0151
ELECTRIC	-0.2279	0.410	-0.56	-0.0089
IDDIR	0.3155	0.571	0.55	0.0107
Constant	1.3802	1.035	1.33	
Mean dependent var	0.302	SD dependent var		0.460
Pseudo r-squared	0.564	Number of observations		384
Chi-square	85.122	Prob > chi2		0.000
Akaike crit. (AIC)	239.358	Bayesian crit. (BIC)		306.518

*** p<.01, ** p<.05, * p<.1.

Source: Own Computation, 2022.

household, the probability of the household being in poverty decreases by 0.71 percent. It is evident that as the education levels of household heads increase, the percentage of poor households significantly decreases. Therefore, we can conclude that compared to household heads with little or no education, those who are educated have a better chance of escaping poverty. This may be related to the idea that as people's education levels rise, so do their levels of knowledge, aptitude, etc.; this, in turn, creates opportunities for participation in a variety of activities and encourages current corporate management systems to generate more revenue. According to Mohammed (2017), Debeli and Endegen (2019), Mulatie and Andualem (2019), and Meseret and Zelalem (2019), this discovery is consistent with an earlier anticipation.

Employment status/types of occupation (EMSTAT)

One factor affecting a household's poverty level is the head of the household's employment situation. In determining household poverty, this variable is determined to be significant at less than 5% level of significance. When the household head is self-employed, the chances ratio of poverty drops at a rate that is approximately 0.438 times lower than that of their peers, all other factors being equal. The self-employed household head is around 3.12% less likely to be poor

than those employed in another sector, which is the reference category, according to the marginal effect (-0.0312), *ceteris paribus*. In numerous studies on urban poverty, the sort of economic participation has also played a significant role in predicting the likelihood that a household will become impoverished. For instance, although it varies from town to town, poverty is reported to be more pervasive among specific occupational categories in Ethiopia (Teshome, 2011; Debeli and Endegen, 2019).

Saving habits of the household (SAVING)

The coefficient of saving shows a negative relationship with the likelihood of becoming poor and is substantially different from zero at the 5% level of significance. The marginal effect (-0.0435) shows that, when all other factors are held constant, saving reduces the likelihood of becoming poor by 4.35 percent. Savings habits give households a higher chance of escaping poverty because they provide a solid foundation for investing in successful ventures and navigating transient market fluctuations. Savings are utilized as a source of additional income, as starting capital to fund activities, to buy more assets, permit increased company investment, and to make it easier to buy more. The result is in line with research by Meseret and Zelalem (2019), Frew (2018), Melese et al.

(2017), and Mohammed (2017).

Diversified income source (DIVINCS)

The household income status in this study was discovered to be significant at 1% significance level and negatively linked with household poverty status, as was expected. That is, the household will be able to live above poverty to a greater extent if its sources of income are more diverse. This suggests that the likelihood of a household becoming impoverished decreases by a factor of 0.130 if households have diversified/multiple monthly incomes. In other words, when all other independent variables are held constant, people with diverse income have a 9.34% lower chance of being poor than those who don't. The most likely explanation is that decreasing household poverty is significantly impacted by raising the household's income level. It is clear from this that one of the main objectives of a plan to reduce poverty is to diversify and raise household income. According to Teshome (2009), Kebede (2019), Feredu (2008), Debeli and Endegen (2019), and this study's findings, raising a household's income is one of the key elements in determining the likelihood that the household would be poor or not.

Access to credit service (CREDIT)

The logistic result demonstrated that credit availability was adversely connected with the likelihood of being poor, which was consistent with earlier expectations. The coefficient is statistically different from zero at the 1% level of precision. As a household's access to credit increases by one unit, the odds ratio in favor of a possibility of slipping into poverty declines by a factor of 1.1805, holding other variables constant. According to the marginal effect (-0.0456) result, a discontinuous change in credit user status from having no access to having access reduces the probability of being poor by 4.56 percent while other factors remain the same. This is because credit enables a household to engage in income-generating activities, increasing derived income and enabling a household's purchasing power to reduce the likelihood that it would become impoverished. Additionally, it supports smooth eating when households experience transient food issues. The results support research by Mohammed (2017) and Meseret and Zelalem (2019) that encouraged using credit to invest in a variety of income-generating activities.

Value of asset owned by the household (ASSET)

According to what was anticipated, the probability of a household being poor at the 1% level of significance was

strongly influenced by the value of an asset owned by the household, which includes the values of the property of a household's tangible goods, such as a residential home, land, equipment, other buildings, vehicles, household appliances, and other durable goods, as well as financial assets (like liquid assets, savings). This demonstrates how households with substantial assets could rise above the poverty level. The probabilities of the household being poor reduce by a factor of 0.964 when the assets of the household head increase by 10,000 Birr (the data was adjusted to be read in ten thousand). In terms of probabilities, the marginal effect (-0.0014) demonstrated that when the household head's asset increased by 10,000 Birr, the likelihood that he or she would become poor decreased by 0.89 percent. A family with valuable assets was expected to make the most of them, either by using them to raise the family's productivity and income or by having the option to sell them off in the event of a shock. This study's findings concur with those of Babu and Reda (2015), Dawit (2011), Melese et al. (2017), and Debeli and Endegen (2019) in their respective research fields.

Household member's health status (HESTAT)

One of the factors influencing urban poverty, according to the logit output, is a household member's health state. As would be expected, the probability of being poor is strongly correlated with health status/disease incidence, and the coefficient is statistically different from zero at the 5% level. This means that, assuming all other factors remain the same, the likelihood that the household will become poor increases by a factor of 1.499 for every additional household member who develops a chronic illness. In another approach, the marginal effect (0.0151) shows that the likelihood of the household becoming poor rises by 1.5% for every additional household member who suffers from an illness.

This conclusion may be explained by the fact that those who are healthier can engage in a variety of activities that can assist them earn more money for their family than those who are not in sufficient health. Another source asserted that a person's health status has an effect on their prospective production in addition to having an immediate influence on their welfare (MOFED, 2002). The conclusion is in line with Sisay (2009), Fiseha (2009), and Frew (2018) in that a family member's poor health has a negative impact on the wellbeing of households.

Ikub Membership (IKUB)

According to the earlier theory, the coefficient of Ikub membership status has a negative connection with poverty status and is statistically different from zero at the

1% level of significance. This indicates that, assuming all other factors remain constant, belonging to Ikub reduces the likelihood that the household will experience poverty by a factor of 3.256. Keeping all other variables constant, the marginal effect (-0.061) indicates that Ikub membership lowers the likelihood of being poor by 6.1% as compared to non-members. As a result, families who participate in Ikub membership have a better chance of escaping poverty.

Conclusion

In the study area, roughly 30.21% of the sample homes were thought to be unable to meet their basic needs, indicating that poverty is still severe and persistent there. The findings of this study have significant policy implications for decision-makers, government agencies, local and international non-governmental organizations, as well as for those who must take action to address the problem at hand.

Recommendations

Based on this background, the researcher comes up with the following recommendations:

- 1) Because food is more expensive in the study area and as a result, living expenses are greater, the poverty level for Goba town was found to be higher than the national and regional poverty lines. Because of this, urban residents cannot afford food. Particularly impoverished households are negatively impacted by the area's high rate of food price inflation. About 52% of the poor's consumption expenditure goes toward food, which makes up the majority of the projected poverty line. This shows that strategies for stabilizing grain prices may have a significant effect on ensuring the welfare of the poor. Therefore, it is beneficial to group community members together into consumer cooperatives to enable them to obtain consumer goods at fair costs.
- 2) Policies should concentrate on absolute poverty rather than relative poverty among the poor because the majority of the poor are clustered near the poverty line, as we can see from the poverty gap. Additionally, the really poor in urban areas need to be accurately identified and helped by pro-poor projects and programs like food subsidies and urban safety nets. Targeting certain social groups including the unemployed, widowed and divorced women, casual workers, retirees, and other marginalized persons is necessary for poverty reduction methods. The approach should recognize the need to fulfill both fundamental requirements and demands resulting from the unique limits of the household.
- 3) In the town's strategy to reduce poverty, there should be a strong focus on households led by women. A poverty reduction approach should encompass gender-sensitive policies that enhance the resources of female-headed families, including measures to improve education levels and fertility control capabilities. Empowering these households to earn a living not only benefits their lives but also contributes to the overall community. To empower and reduce poverty prevalence in female-headed households, it is crucial to provide low-interest loans, create job opportunities, and offer training in skill development and confidence-building. Additionally, expanding microfinance institutions, especially for women-led households engaged in small business activities, is a crucial step in addressing this issue.
- 4) The correlation between family size and poverty in the research area was positive and substantial, which implies that households with bigger family sizes are unable to escape poverty because they are unable to satisfy the minimal daily calorie requirement. Government help at the beginning stage and further improvement of the economic situation of urban households are thus crucial to support economically inactive and unemployed family members in order to mitigate such impacts. Additionally, focusing more on family planning as well as inspiring and providing job possibilities for productive members may modify this approach and enhance the standard of living for the poor. The town's health department and office for job opportunity creation can both play important roles in this regard.
- 5) The head of the household's educational level is determined to be the most crucial variable. The likelihood of escaping poverty increases with a person's level of literacy since literate people know how to support themselves and live respectable lives. In order to effectively solve the issues of extreme poverty in the long run, education must be promoted. Such a plan ought to place a strong emphasis on female education. This is due to the fact that women primarily head disadvantaged homes. Interventions meant to lower the direct and indirect costs of education and make this service more accessible require the determined involvement of not only the government but also of communities and NGOs. A lot of attention should be placed on the expansion of private institutions in the town and Robe town along with the already-existing government university (Madda walabu University) in this regard.
- 6) The incidence of poverty is lowest in households where the head of the household is self-employed. The poorest people are those who work in minor trades but were hired by both the public and private sectors and temporary workers. Poverty is also more common among the unemployed. Therefore, chances for employment and income generation for those segments of society with lower paying jobs should be given priority in new development projects. To increase and diversify work opportunities in this situation, small-scale industry development should be supported and encouraged in metropolitan areas. It is necessary to take steps to

increase these activities and reduce the technical and financial barriers that prevent households from participating in them, such as providing training to help people develop their entrepreneurial and marketing abilities and granting them access to financing.

7) The household head's other income sources are negatively connected with poverty and have a considerable impact on it. It is clear from this that one of the main objectives of a plan to reduce poverty is to diversify and raise household income. Therefore, strategies for diversifying sources of income should be developed. In order to do this, community people and the government should work together to identify any potential solutions. Increasing the local communities' entrepreneurial skills is one method to do this.

8) To increase the number of savers and the amount of saving, financial institutions should focus on expanding their businesses, raising awareness, and offering incentives. Similar to this, the majority of poor households lacked access to finance, which has the huge potential to help them escape poverty. It is advised that the poor should continue to be the focus of credit distribution mechanisms that enable them to buy both food and nonfood items of products. This provision should also be complemented by ongoing follow-up and technical assistance.

9) In general, if there is a commitment on the part of different parties to identify as well as prioritize the elements responsible for the incident and put forward sound policies and actions in controlling them, the pervasive problem of poverty in the study area can be controlled to a meaningful level. The government, NGOs and CBOs, researchers, the impoverished people, and other stakeholders all need to work together on this.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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