



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE
Volume 16 Issue 6 Version 1.0 Year 2016
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Impact of International Remittances on Poverty Reduction in South-West Ethiopian: Evidence from Jimma Zone

By Jibril Haji & Leta Sera

Jimma University

Abstract- This paper analyzes the impact of international remittances on poverty reduction in the Jimma zone of Ethiopia. The household surveyed data collected from 371 household heads in the year 2014 was used. The binary logistic model was applied to find out the impact of international remittances and other control variables on poverty status of households in the area under consideration. The result reveals that the poverty status of households negatively related with the inflow of international remittances. This implies that the household who receive remittances are less likely to be poor. In addition to this, family size, total land holding, amount of livestock owned, and distance from the nearest market were also significantly determine the poverty status. Finally, the study suggests the government should develop policies that encourage the inflow of remittances; such as providing better and relatively cheap means of transferring remittance, and developing an appropriate regulatory framework and monitoring mechanism of flow of remittances.

Keywords: *impact, remittances, poverty reduction.*

GJMBR - B Classification : *JEL Code : I30*



IMPACT OF INTERNATIONAL REMITTANCES ON POVERTY REDUCTION IN SOUTH WEST ETHIOPIA: EVIDENCE FROM JIMMA ZONE

Strictly as per the compliance and regulations of:



Impact of International Remittances on Poverty Reduction in South-West Ethiopian: Evidence from Jimma Zone

Jibril Haji^a & Leta Sera^a

Abstract- This paper analyzes the impact of international remittances on poverty reduction in the Jimma zone of Ethiopia. The household surveyed data collected from 371 household heads in the year 2014 was used. The binary logistic model was applied to find out the impact of international remittances and other control variables on poverty status of households in the area under consideration. The result reveals that the poverty status of households negatively related with the inflow of international remittances. This implies that the household who receive remittances are less likely to be poor. In addition to this, family size, total land holding, amount of livestock owned, and distance from the nearest market were also significantly determine the poverty status. Finally, the study suggests the government should develop policies that encourage the inflow of remittances; such as providing better and relatively cheap means of transferring remittance, and developing an appropriate regulatory framework and monitoring mechanism of flow of remittances

Keywords: impact, remittances, poverty reduction.

I. INTRODUCTION

Recently, there is huge mobility of factors of production across the world mainly due to globalization and open policies. The movement of people from one country to other country is the common feature of current world. Over last decades the world faces an alarmingly growing of migrant peoples mainly from developing countries to developed countries due to various reasons such as food insecurity, political instability, overpopulation and for better job opportunity. According to World Bank statistics, about 30 million which was 10.2 percent of global migrants were hailed from Africa (WB, 2011). As a result countries in the migrants' origin in general and millions of households in particular have been affected by the many millions of migrants through remittances inflows to the migrants' origin countries.

Remittances are the main source of foreign income for developing countries. The flow of remittances to developing countries has been increasing dramatically over recent decades. The remittances receipts had reached \$350 billion in 2011 as compared to only \$0.3 billion in 1971 (World Bank, 2011). It is likely

that billions more were transferred through unofficial ones. The current report and evidence have indicate that the inflow of remittances to developing countries exceeds the amount of official aid and is the second largest source of external finance after foreign direct investment both in the absolute terms and as a proportion of GDP (Anderson, 2012). According to Barajas et al (2009) over recent years remittances flows amounted on average about one third of export earning, twice of private capital flows, almost ten times of official capital flows and more than twelve times of official transfers to developing countries.

Therefore, given large size of total remittance flows into developing countries, they should be expected to have significant economic effects both at macro and micro levels on the economies that receive them. Remittances are serving as source of investment (enables country to invest more on human and physical capital) and consumption which in turn boosting economic growth (Beyene 2011, Ratha 2007). They have also potential to become an important tool for economic development through loosen production and investment constraints and finance investment in new production technologies and input (Anderson, 2012). According to Das and Serieux (2010) significant portion of remittance flows to developing countries are used to serve debt, and increases foreign exchange reserves.

The importance of remittances has been increasing not only at macro-economic level but also at the micro-economic level. Remittances are largely personal income transfers from relative migrants to their families. Hence, they have the potential and ability to reduce poverty and to promote human development (Ratha, 2007). Moreover, remittances have been associated with increased household investment on education, health and entrepreneurship that could result in high social return. By affecting consumption and income of households, the inflow of remittances could affect the household welfare, poverty and income inequality of migrants' origin country ((Beyene, 2011). They have the prospective effects on asset accumulations through investment on asset goods such as housing, durable consumer goods and non-land assets (Anderson, 2012).

Ethiopia is one of the developing countries in the world experiencing a substantial outflow of people

Author a a: Department of Economics, Jimma University.
e-mail: jibrilha87@gmail.com

(particularly, working age labor force that includes skilled, semi-skilled and even unskilled peoples). This massive outflow of factors of production could have a significant impact on Ethiopia's development. As mentioned earlier, remittances are one of the main channels through which huge outflow of man-power affects Ethiopia's economy. During recent decades inflow of remittances to Ethiopia has grown dramatically, from \$134 million which was 7% of export earnings and 1.3% of GDP in 2004 to \$389 million (15% of export earning and 1.5% of GDP) in 2010 (WB, 2011) which make Ethiopia one of the top 10 sub-Saharan African countries in terms of remittance receiving. Yet their true size, including unrecorded flows through formal and informal channels, is much higher. The figure surpassed \$1 billion if we include informal inflow of remittances to the country (Alemayehu et al, 2011). Therefore, it is very important to scrutinize the effect of large inflow of remittances on poverty status of the households. Particularly, this study is limited to examine the poverty effect of international remittances in Jimma zone of south west Ethiopia. This study will contribute to the understanding of status and impact of remittances on poverty. The results of the study can also provides important information for all concerned bodies such as government, policy makers and other institutions to exercise well-articulated remittance management as it can aid growth and development by providing much needed foreign exchange and additional source of income for households.

II. LITERATURE REVIEW: EMPIRICAL EVIDENCE

In recent time, sustainable economic growth and poverty reduction are the top agenda of many developing countries. This require all concerned body to understand factors that influence the overall economic situation and hence poverty status of the country. With alarming increasing of migration mainly from developing countries to developed countries, it is very vital to summarize information regarding the impact of remittances on economic situation of receipt countries. Various studies have been conducted across the world to assess the effect of international remittances on the economy of migrants' origin countries both at macro and micro level. The extent and direction of its impact depend on who receive it, how it is measured, its volume, risk and uncertainty situations in both host and origin countries and motives behind transfers (for investment that considered as productive activities or consumption that is counter-productive) (Beyene 2011, Sharm 2009).

Siddiqui and Mahmood (2005) investigated the impact of workers' remittances on economic growth using time-series data. The study concluded that economic growth is positively associated with the inflow of workers' remittances as they had helped in reducing

current account deficit, external debt burden as well as improving debt servicing ability. The same result was obtained by Feeny et al. Much evidence points to the fact that remittances are less volatile to economic downturns as compared to FDI or other official development assistances and hence helped receipt countries in case of economic insecurity.

Barajas et al. (2009) in their analysis of 'Do Workers' Remittances Affect Economic Growth in Pakistan' concludes that remittances have insignificant economic impacts at their best. This might be associated with appreciation of real exchange rate and reduction of labor supply as a result of remittances flow. Apart from macro impact, several studies have examined the micro-economic effect of income transfers from international migrants. Adams (1991) examines the effect of international remittances on poverty in rural Egypt. After he predicts factors that affect decision to work, including household indicators such as education level, number of males of working age, land ownership, estimates the impact of remittances on poverty using predicted income equations. He finds that remittances significantly reduce incidence of poverty in rural Egypt.

Adams and Page (2005) used a counterfactual methodology and instrumenting for the endogeneity problem of remittances, based on a household survey of 71 developing countries, to examine the impact of international remittances. Controlling for the level of income, income inequality, and geographical region, they find that remittances have a significant effect on reducing poverty in the developing countries. They found that a 10 percent increase in the share of remittances to GDP in a given country would lead to a 1.6 percent decline in the share of people living in poverty. Qayyum, Javid and Arif (2008) estimate the impact of remittances on growth and poverty in Pakistan by using auto-regressive distributive lag model. They find that an international remittance has a strong and statistically significant impact on economic growth and poverty reduction in Pakistan.

Ahmed et al (2010) using a general equilibrium framework and micro-econometric analysis estimates macro and micro-economic impact of remittances in Pakistan. In general equilibrium analysis he simulates the impact of reduction in remittances on main macroeconomic indicators. The finding of the study has shown that gross domestic product, investment and household consumption declines as a result of fall in income transfer from abroad economy. Moreover, the result of micro-econometric analysis revealed that remittances significantly reduce the probability of households becoming poor.

Chukwuone et.al (2012) presented the impact of internal and international remittances on poverty in Nigeria using propensity score matching approach and multinomial logit model with instrumental variables. The result revealed that the probability of households' falling

into poverty significantly reduced when household receive remittances from either internal or international sources though the impact is more in case of international remittances.

Using decomposition techniques Taylor et al (2005) study the effect of remittances on poverty and inequality based on rural survey data collected from 14 Mexican states. They find that remittances reduce overall poverty though the magnitude differs across states. The study estimates that poverty headcount and poverty gap indices would decline by 0.77 and 0.53 respectively with 10 per cent increase in international remittances. However, the inequality situations in the country worsen as a result of outside income inflow. The observed differences in the impact of remittances on poverty and inequality across regions is depends on the migration level in the regions. The highest effect is registered for the highest migration region while the lowest effect is observed for the lowest migration region. Ratha (2007) using household survey data evaluates the impact of remittances in Uganda, Bangladesh and Ghana. The results have shown that poverty situations in each country is significantly improved, where 11%, 6% and 5% of the percentage of population below poverty line lifted out as a result of income receipt from abroad in Uganda, Bangladesh and Ghana respectively.

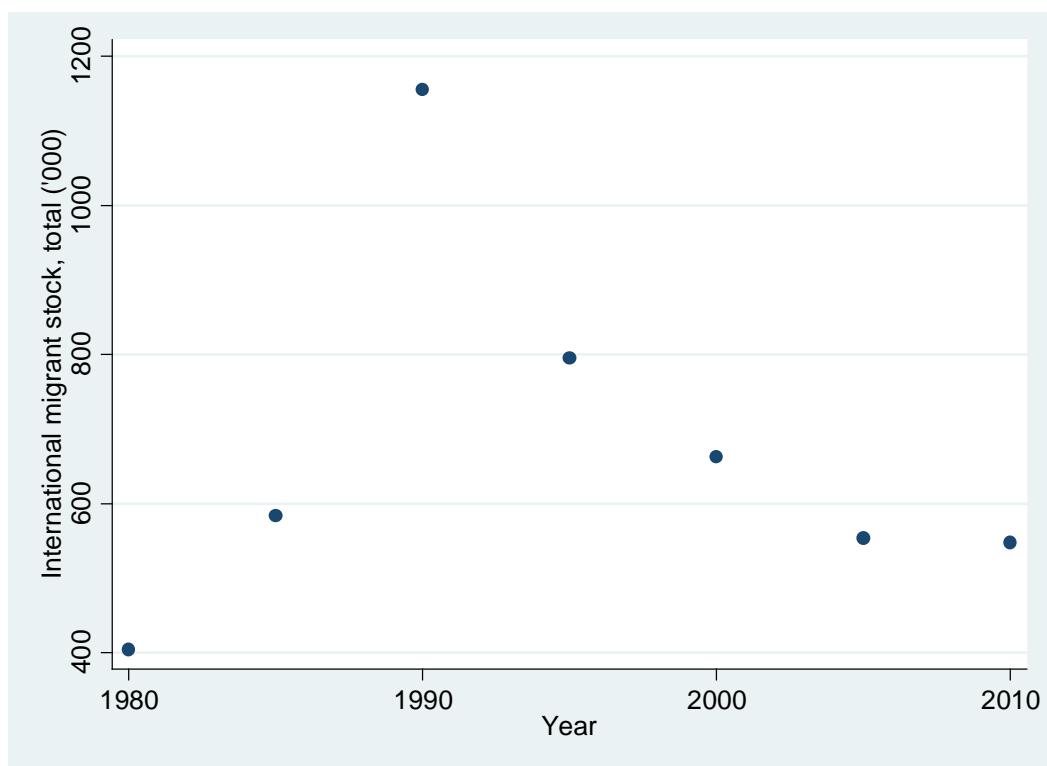
Beyene (2011) estimates the effect of international remittances on poverty and inequality in

Ethiopia using 2004 urban household survey. The study was used counterfactual estimation method in which counterfactual consumption is estimated to compare households with and without remittances. He finds that remittances significantly reduces the probability of being poor they have worsened inequality situation in the country though the magnitude is negligible.

Andersson (2012) using propensity score matching approach analyzes the impact of remittances on household welfare of rural Ethiopian. He finds that remittances have a considerable effect on welfare of society. They have a significant positive impact on household well-being measured subjectively while the effect on households' asset accumulation and asset holding is ambiguous.

III. OVERVIEW OF MIGRATION AND REMITTANCES IN ETHIOPIA

A noticeable degree of out-migration in Ethiopia started in 1970s that was limited to the urban elite mainly due to revolution and political unrest which was later on followed by more economically oriented in the country (Alemayehu et al, 2011 and Andersson, 2012). The major factors driving Ethiopian migrants over the years were political, economic and environmental issues (Fransen and Kuschminder, 2009).



Source: *World Development Indicators, 2014*

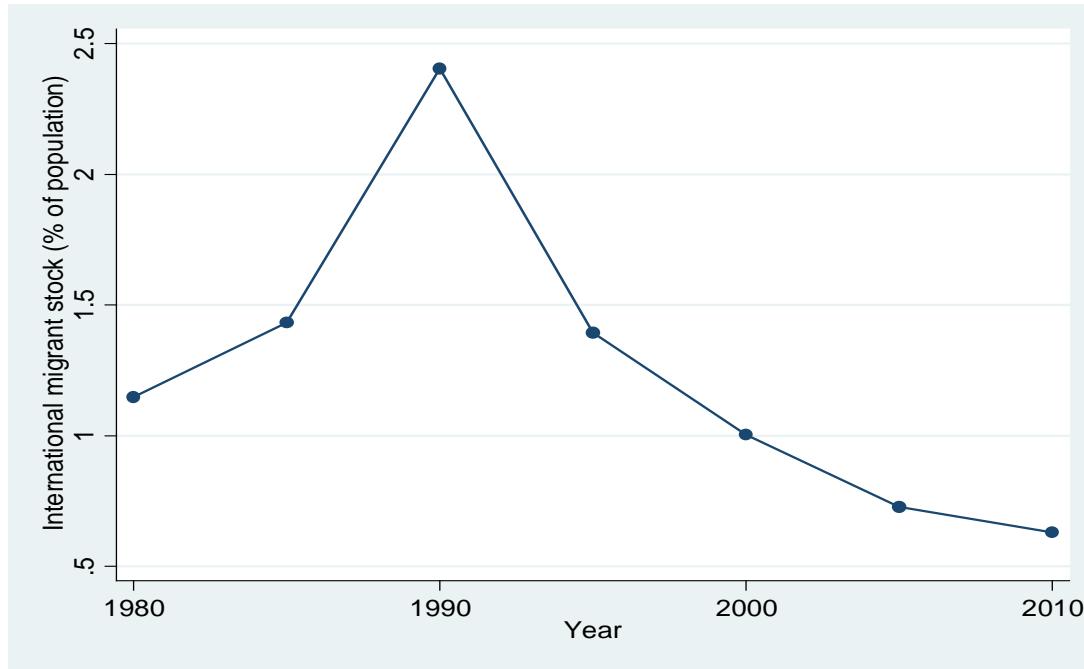
Figure 3.1 : Total stock of international migration in Ethiopia (between 1980 and 2010)

As indicated in figure 3.1, the total number of Ethiopian people migrates to abroad increases at high rate in 1980s and reaches its peak at 1990. This is mainly due to the fact of political unrest that forces people to migrate from origin place to escape conflict in the country. Over the same period of time, the total stock of Ethiopian emigrants living abroad as a percent of total population also rises, even in 1990/91 it approaches to 2.5 percent of the total population of the country as shown in figure 3.2.

However, after the downfall of the Derg regime in 1991, the total numbers of migrant Ethiopian people

decreases, mainly up to mid-2000s because of relatively better stability in the country. As indicated in figure 3.2, the total stock of migrants' people as percent of total population has been continuously decline since 1990/91.

However, over the last decade once again we have observed slight rises of migration in Ethiopian which become an ambition of both rural and urban people, especially for economic reasons as we have witnessed currently large number of peoples, particularly rural female's departure to abroad country especially to the Middle East countries.



Source: *World Development Indicators, 2014*

Figure 3.2 : International migration stock as percentage of total population in Ethiopia (between 1980 and 2010)

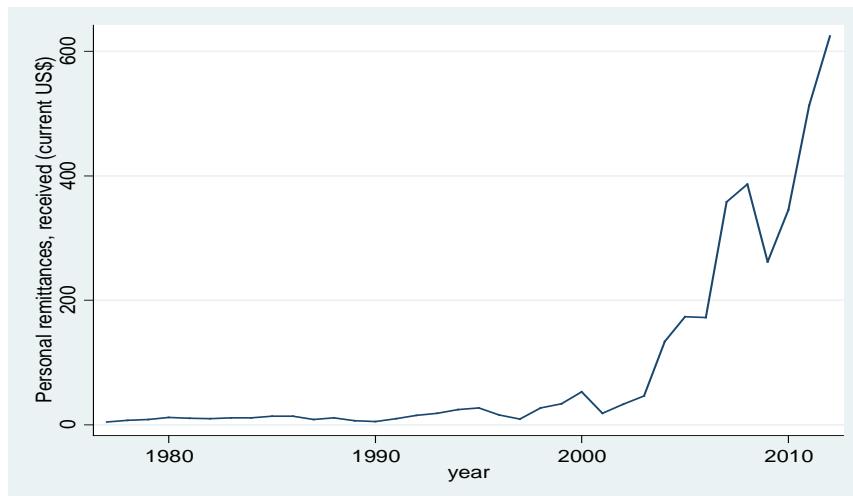
The total stock of Ethiopian emigrants living abroad in 2009 was 0.6 million people which was 0.7 percent of the total population of 82 million in the same year (WB, 2010). The Ethiopian migrants who send back remittances to their origin households reside in different parts of the world. According to 2009 UN report Asia, North America and Europe were the major destination of the Ethiopian emigrants hosting 38%, 31% and 21% of the total emigrants respectively. From Asia, Middle East is the most important destination particularly for young women due to the nature of labor market and its geographical proximity. It is particularly common for young women to go to the Middle East to work mainly as domestic workers (Kebede, 2002; Fransen & Kuschminder, 2009). The top emigration destination countries for Ethiopian migrants are Sudan, the United States of America, Israel, Djibouti, Kenya, Saudi Arabia, Canada, Germany, Italy, and Sweden (Andersson, 2012).

World Bank (2010) report shows that, using a survey of 2004, 39% of the Ethiopian households had a family members or relatives living in abroad. Like migrants from all developing countries, Ethiopian migrants send money to their families back home. The World Bank's ranks Ethiopia to be the 8th largest remittance receiver in Sub-Saharan Africa in 2010, reaching 387 million USD as compared with 100 million USD of net foreign direct investment inflows (Andersson, 2012). However, the estimates of the exact value of remittances that come into the country vary substantial. For instance, according to MoFED remittance flows averaged 307 million USD per year between 1997 and 2006 in contrary to just 70 million USD according to World Bank (Alemayehu et al, 2011). The United Nations Development Program (UNDP) estimated the total inflow of remittances for Ethiopia in 2007 at US\$359 million (UNDP, 2009 cited in Fransen and Kuschminder, 2009). On the other hand, the national bank of Ethiopia

estimated the inflow of remittances at US\$636.2 million in 2007.

However, all data source reveals the same trend in that the inflow of international remittances into the country increases at large. The trend of total remittance flows to Ethiopia since 1980 is shown in figure 3.3 while figure 3.4, shows total remittances as a percentage of real GDP. Though the inflow of international remittances slightly increases since 1970's, it does not show significant changes up to 2000. However, the volume of remittances has been increased sharply since 2000/01.

In 2001, the total flow of remittances was only 18 Million USD. In 2004 it reached 134 Million USD and was 7% of export earnings and 1.3% of GDP which in turn increases to 387 Million USD in 2008 that was 15% of export earnings and 1.5% of GDP and makes Ethiopia the 8th highest international remittances earning countries in Sub Saharan Africa (SSA). In 2009, it decreased both in volumes and as percent of GDP due to the global financial crisis. After that, it has shown significant increment as the figure reached to 624.4 million USD in 2012 which is 1.5% of GDP.

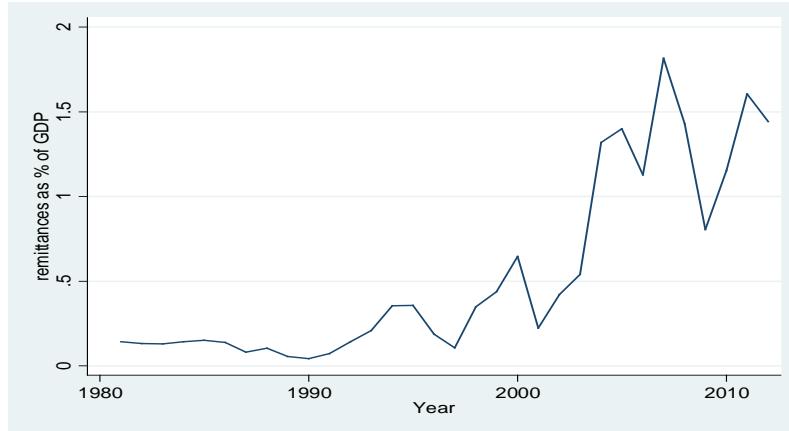


Source: *World Development Indicators, 2014*

Figure 3.3 : Remittance Flows to Ethiopia (1980-2010)

Unlike the volume, the international net inflow of remittances as a percentage of GDP is low in general and did not grow much. This is may be due to the fact of

high economic growth recorded in the country in the recent years.



Source: *World Development Indicators, 2014*

Figure 3.4 : Remittance Flows to Ethiopia as Percentage of GDP (1980-2010)

According to the UN (2009) report, North America is the most important source of remittances to Ethiopia with 41% of the total flow followed by Europe with 29% and Asia with 24%. The reason why the highest amounts of remittances come from North America and Europe while Asia has the highest stock of Ethiopian

emigrants may be because migrants earn higher income in North America and Europe compared to Asia. In general, the real financial flow of international remittances is much higher than formally recorded when the informal flow one is included. In Sub-Saharan Africa 45 to 60 percent of formal remittances is estimated to be

come in through informal channels (Freund and Spatafora, 2005 cited in Fransen and Kuschnieder, 2009). According to Alemayehu et al (2011) in sub-Saharan Africa 73% of total remittances are unrecorded remittances, which are transferred through informal channels.

IV. DATA TYPE AND METHODOLOGY

This study was conducted in Jimma zone of Ethiopia. The field survey data that covered 371 household heads living in the study area in the year 2014 was used. The relevant information was collected through structured questionnaire that contains detailed information about the households' demographic characteristics, socio-economic characteristics, income and flow of international remittances.

The study used both descriptive statistical inferences and micro-econometric model, in the assessment. The descriptive analysis was made to examine the demographic and socio-economic features of respondent. Descriptive statistics like percentages, ratios, mean values, and frequencies were used. The micro-econometric technique, called binary logistic model, was applied to analyze the impact of international remittances on poverty alleviation using SPSS 17 and STATA 12 software.

The empirical evidence shows that poverty can be measured objectively (monetary or non-monetary approaches) or subjectively. However, most of studies on poverty are based on money metric approaches either using income level or consumption expenditure of households. According to money metric approaches an individual is considered poor if his or her consumption or income level falls below some minimum level necessary to meet basic needs.

Recently, definition of poverty goes beyond lack of sufficient income. Even if the people possess adequate incomes, they can still suffer acute deprivation in many aspects of life. Thus, many thinking on poverty argues that poverty should be viewed in terms of an inadequate standard of living, whereas the other considered poverty as lack of minimum level of education, nutrition, literacy and social exclusion and powerlessness in addition to insufficient level of income. The adherent of this approaches concluded that poverty should be looked from angle of nutrition status, Life expectancy and health index that together give a unit index.

The poverty can be defined in relative way or in absolute way. Relative poverty refers to lacking a usual or socially acceptable level of resources or income as compared with others within a society or country where as absolute poverty refers to the set of resources a person must acquire to maintain a minimum standard of living for survival. It defines the threshold that distinguishes the poor from the non-poor and examines

the income or consumption levels of people in reference to that threshold. Recently, these income or consumption based absolute poverty lines have become a norm in almost all developing countries.

Having defined the welfare of household using aggregate income, consumption or non-monetary measure, the next step is to define poverty line which demarcates the poor from non-poor. The poverty line can vary in time and place; different countries can use different poverty line considering their level of development, societal norms and values. This studies uses income per adult equivalence to distinguish poor from the non-poor households. Particularly, the study used 2010/11 poverty line employed by Ethiopian government as we didn't get any update national poverty line. The absolute poverty line of Ethiopian Birr 3,781 per year per adult equivalence was employed as demarcation of poor households from non-poor (MOFED, 2012).

To characterize the poor in the study area, the researcher was used a probability model in which the chances of falling below the poverty line are linked to the flow of international remittances, demographic and socio-economic characteristics household. Hence, the binary logit model is adopted to analyze impacts of remittance and other demographic and socio-economic variables on poverty status of household. The binary logit model is defined as:

$$P_i = E(Y = 1/R_i) = \alpha + \beta R_i$$

Where, P_i is the *dependent variable* which indicates the probability of being poor. It is dichotomous or dummy variable: where it represents (1) when the household is poor and (0) when the household is non-poor.

R_i : represents vector of *independent (explanatory) variables* that include both qualitative and quantitative data in nature. The explanatory variables included in the model are:

- Sex of households: discrete variable
- Age of households: continuous variable
- Household size: continuous variable
- Educational status of household head: discrete variable
- Total land holding: continuous variable
- Distance from nearest local market: continuous variable
- Amount of livestock ownership (measured in tropical livestock unit): continuous variable
- Remittances: discrete variable

V. RESULTS AND DISCUSSION

a) Demographic and Socio-economic Characteristics of the Respondents

Out of the total surveyed households, 27.9% of them are beneficiary of international remittances. The receiver of remittance will have either close relationship

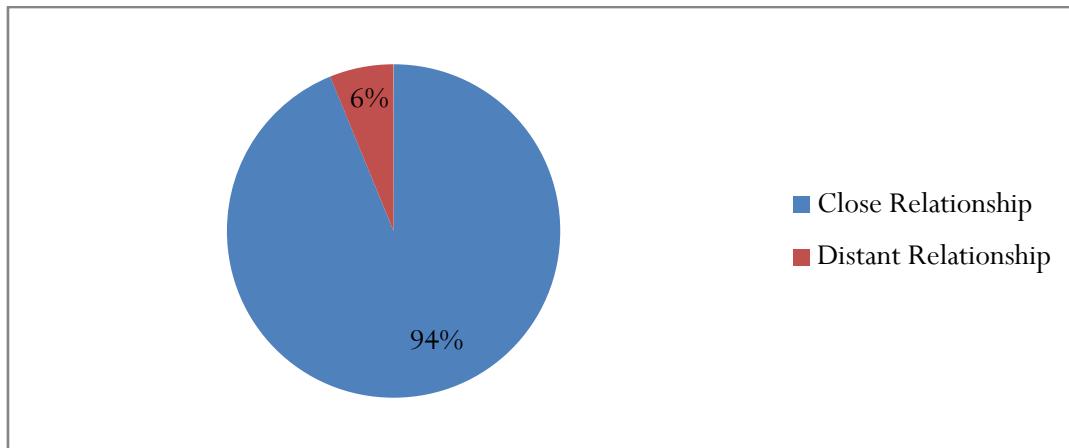
or distance relationship with the migrants who send back money to them. The survey result showed that 94% of beneficiaries' households received remittances from close relative whereas the remaining 6% of households

received from the distant relatives. This showed that majority of Ethiopian migrants who send back money to origin nation have a close and blood relationship with the beneficiary.

Table 1 : Percentage of beneficiary and non-beneficiary of international remittances

Households type	Proportions
Non-beneficiary	72.1
Beneficiary	27.9

Source: Own Computation, 2014

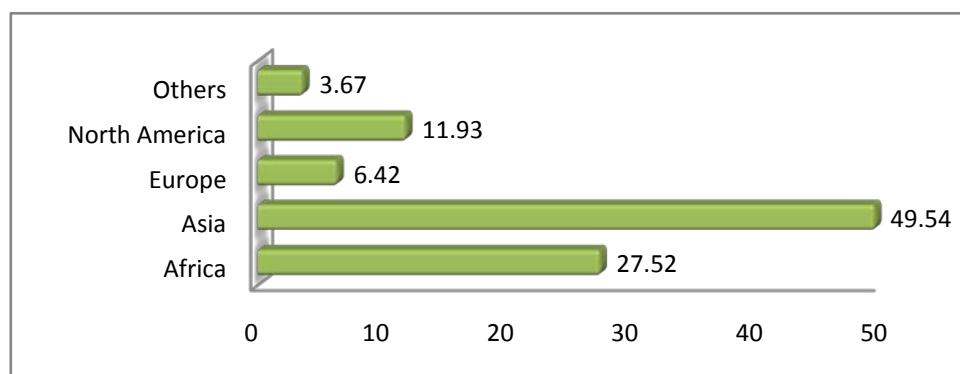


Source: Own Survey and Computation, 2014

Chart 1 : Distribution of Beneficiaries' Relationship with Migrants

The Ethiopian who migrate from their home country and send money back to their families lives in different part of the world. Chart 2 reported the

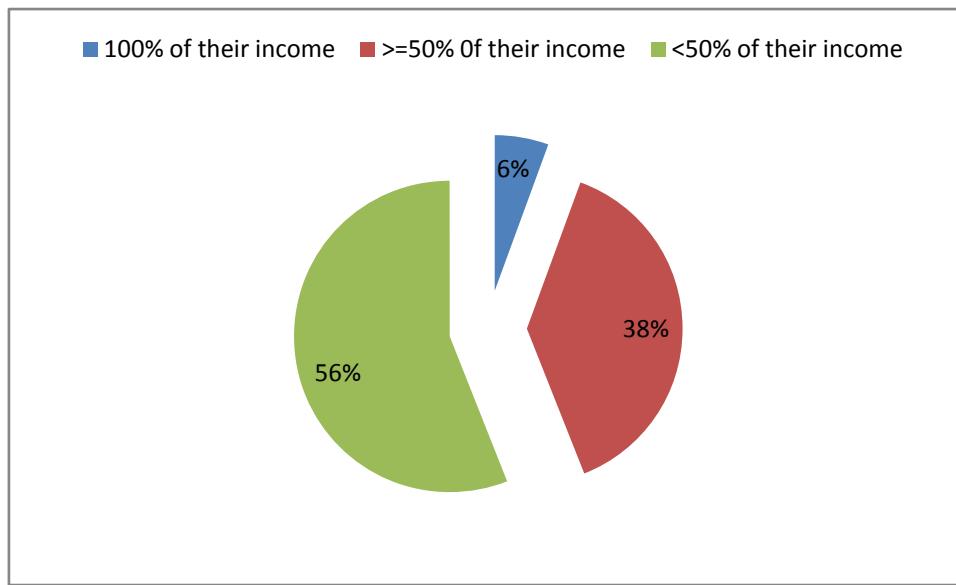
distribution of Migrants who send back money to their origin country.



Source: Own Survey and Computation, 2014

Chart 2 : Distribution of Migrants who send back money to their Origin

The study find that majority of households receives remittances from migrants who live in Middle East (52.6%) followed by Africa, North America, and Europe. This is not surprising as we can recently observed that large number of Ethiopians particularly female from rural areas migrate to Middle East countries mainly Saudi Arabia, united Arab emirate and Kuwait.



Source: Own Survey and Computation, 2014

Chart 3 : The importance of Remittances in the Households Total Income

The survey also covered questions of how important international remittances are for the households' total income. As depicted in chart 3, 6% of households state that international remittances accounts for 100% of their income and 38% of households respond that remittances from abroad account for 50% or more of their income. This implies that income received from abroad contribute significant to the total income of households.

Table 2, 3 and 4 summarize the demographic and socio-economic characteristics of sampled households by their remittance status. In general we find households without remittance have relatively higher education level, total land holding, livestock, per capita income and work experience as compared to households with remittances. Table 2 reported some selected demographic characteristics of households

group (households with remittance and with remittances). When the sex of household heads is compared, the result unsurprisingly shows that majority of respondents either beneficiary or non-beneficiary are male headed household. So there is little difference between the two groups as male headship dominance is the feature of many developing countries, mainly in rural areas. Regarding the education level of household head, majority of respondents are illiterate though the illiteracy of beneficiary households (74.4%) is higher than that of non- beneficiary (67.6%). The survey also compared the marital status of households who receive remittance and don't receive. The result implies that there is no significant between the two groups regarding the marital status. Out of the total respondents, more than 94% are married.

Table 2 : Distribution of households by some selected demographic Features (in Percentage)

Variables Description		Beneficiary of Remittances	Non-beneficiary of Remittances
Sex	Male	71.8	74.7
	Female	28.2	25.3
Educational status	Illiterate	74.4	67.6
	Literate	25.6	32.4
Marital status	Single	3.8	1.8
	Married	94.9	94.2
	Divorced/ Widowed	1.3	4.2

Source: Own Survey and Computation, 2014

Table 3 summarized the mean value of age, family size, work experience and distance from the local market of the two groups (beneficiary and non-beneficiary households). The mean age of the two

groups is very similar but slightly an average age of non-beneficiary households (45.8 years) is higher than the average age of beneficiary households (44.0 years). When we compared the family size of two groups, both

receiver and non-receiver households have relatively higher family size on average as most of them living in rural areas don't use family planning. The average work experience of beneficiary and no-beneficiary households

is 22.5 and 23.8 years respectively. Moreover, the households who receive remittances on average live in a slightly far distance from local market (10.6 KM) than the one who don't receive remittances (9.6 KM).

Table 3 : Some selected characteristics of Households with Remittance and without Remittances

Household characteristics	Beneficiary of Remittances (Mean value)	Non-beneficiary of Remittances (Mean value)
Age	44.0	45.8
Family size	6.5	6.3
work experience (in years)	22.5	23.8
Distance from Local market (in KM)	10.6	9.8

Source: Own Survey and Computation, 2014

Table 4 reported summary of asset ownerships of both groups of households. The resulted revealed that households who receive remittances have relatively lower average land holding (1.5 ha) as compared to non-beneficiary one (1.9 ha). In the same way the households without remittances have higher total livestock unit than households with remittances. As a result of these, households without remittances have

higher average per adult income (5893.7 ETB) than household with remittances (4750.6ETB). These suggest that the household who sent one or more of their families to abroad and receive remittances are relatively poorer. The household with more asset ownership become relatively non-poor and they don't want to send their families abroad.

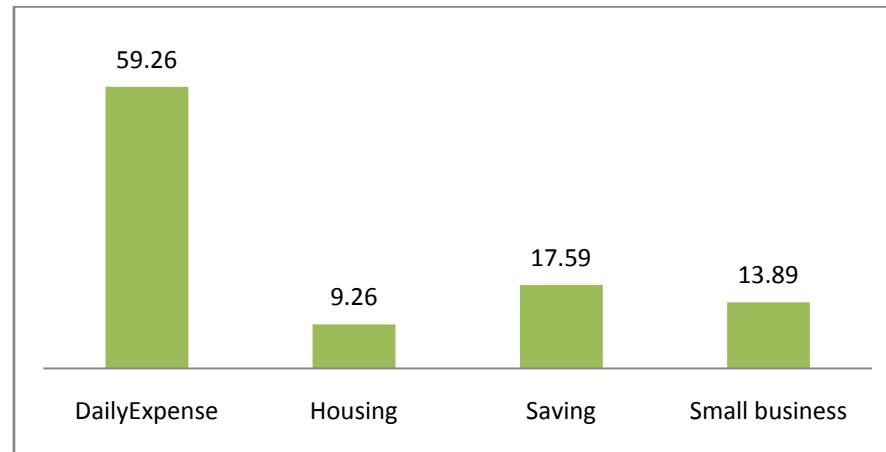
Table 4 : Resource Ownerships of Households with Remittances and without Remittances

Variables	Beneficiary of Remittances	Non-beneficiary of Remittances
Total land (in hectare)	1.5	1.9
TLU	3.0	3.3
Income Per adult equivalence	4750.6	5893.7

Source: Own Survey and Computation, 2014

The study also tried to address the questions of for what purposes the households uses the amount of remittance they received from abroad. Chart 4 showed the distribution of the inflow of remittances in regard to

final usage. Majority of households are used remittances for daily expenses (59.26%) such as food followed by saving account, small business and housing respectively.



Source: Own Survey and Computation, 2014

Chart 4 : Purposes of Remittances

b) Impact of Remittances on Poverty

As we mentioned in the methodological part, the binary logistic model was employed to investigate the impact of remittances on poverty. Before interpreting

the results of regression, it is very important to check for the adequacy of the model, and goodness of fitness of the model. The estimated logistic regression model is given in table 5.

The likelihood ratio with chi square distribution used to check for the adequacy of the model. It tests the null hypothesis that none of the independent variables are linearly related to the log odds of the dependent

variable. The result is statistically significant and hence we reject the null hypothesis of the independent variables are not related to the log odds of probability of being poor.

Table 5 : The Maximum likelihood estimates of the Logit model

Dependent Variable: the Probability of being poor (1 if the household is poor and 0 otherwise)				
Explanatory Variables	Coefficient	P-value	Odds Ratio	Marginal effect
Rem	-1.795	0.000	0.166	0.292
Sex	-0.142	0.674	0.868	-0.029
Age	0.031	0.167	1.032	0.006
Family size	0.862	0.024	2.369	0.174
Headeduc	-0.060	0.629	0.670	-0.007
Totaland	-0.044	0.005	0.957	-0.187
Tlu	-0.538	0.000	0.584	-0.112
Localmkt	0.126	0.000	1.134	0.024
_cons	-0.355	0.676	-	-
Log likelihood	-144.5			
LR chi ²	99.80 (P-Value = 0.00)			
H-L chi ²	309.45 (P-Value= 0.1629)			
Sensitivity	84.4%			
Specificity	75.6%			

The model goodness of fit was checked using the Hosmer-Lemeshow (H-L) test. The H-L test is used to test the null hypothesis of there is a linear relationship between the predictor variables and the log odds of the measure variable. The result showed that chi-square was statistically insignificant and hence we fail to reject the null hypothesis. The sensitivity and specificity analysis showed 84.4 % and 75.6 %, respectively. Therefore, we concluded that the model fits the data very well. So, we can proceed to discussion and interpretation of the significant explanatory variables in the model.

In general, the output of regression showed that remittances from abroad, households family size, total land holding, total livestock unit, and distance from the nearest local market are significantly determine the poverty situation of households.

According to the finding given in table 5, an international remittance was significant determinant of households' poverty status. As expected, the availability of remittances was negatively and significantly associated with household poverty status. The result showed households who receive remittances are less likely to be poor. Other things remain constant; the odds ratio in favor of being poor reduces by a factor of 0.166 as the remittances inflow from abroad increases by one birr. This suggests that households who received remittances are endowed with additional income and hence less likely to be falling into poverty.

The coefficient of households' family size was statistically significant at 5% probability level and positively related with poverty status of households. The household with more family size are more likely to trap in

poverty. The increases of family size by one unit the chance of being trapped in to poverty increases by a factor of 2.369. This may be due to the fact that the additional household member becomes more dependent that puts extra pressure on consumption expenditure than contribution to extra production.

Regarding the total land holding size, the model result reveals that the variable coefficient is statistically significant at 1% significance level and negatively influences the household probability of being poor. This implies that as household farm size increases the probability of households trapped into poverty reduces. The odd ratio of land size implies that as farm land size of households' increases by one hectare the probability of households being poor reduces by a factor of 0.957. The possibly reason is that in rural parts of Ethiopia Land are main asset and resource of households. As land size increases the household production and hence consumption increases which helps them to move out of poverty.

The total amount of livestock owned by households measured in total livestock unit is another important determinant of households' poverty. The variable is significant at 1% probability level and negatively affects the households' poverty status. The result indicates that, other things held constant, the odds ratio in favor of being poor decreases by a factor of 0.584 as the total livestock holding increase by one unit. The reason can be household with more livestock will get more livestock production (such as milk, meat, etc.), and hence give them the better chance to get more income from product sells and/or consume more.

In addition to this, livestock is another important agricultural input for production in rural parts of Ethiopia. As expected, the coefficient of household distance from nearest local market (measured in KM) is positively correlated with households' likelihood of falling in to poverty. Its coefficient is statistically significant at 1% significance level. The result reveals that the probability of being poor increases as household far away from local market.

VI. CONCLUSION AND POLICY IMPLICATION

Migration is the common phenomena of today world. Like other countries, Ethiopia also experienced large number of people migrating to different parts of world for various reasons mainly to get better job. Those migrants send back money to their relatives or friends of origin country. Recently, the amount of international remittances inflow into the country has shown increment at large which expected to affect the Ethiopian economic situation at macro and micro level. Therefore, using binary logistic model this study attempted to scrutinize the impact of international remittances on poverty status of the household.

The logistic regression result showed that remittances from abroad, household family size, total land holding, total livestock unit, and distance from the local market are the main determinants of household poverty status in the area under consideration. On the other hand, sex, age, and educational level of households were statistically insignificant. Finally, the study suggests that concerned body mainly the government should give due attention to the flow of international remittances as it can be used as one tool to fight poverty in Ethiopia. That means the government should develop policies that encourage the inflow of remittances; such as providing better and relatively cheap means of transferring remittance, and developing an appropriate regulatory framework and monitoring mechanism of flow of remittances.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Adams R. (1991). *The Effects of International Remittances on Poverty, Inequality and Development in Rural Egypt*. Research Report 86, Washington DC: International Food Policy Research Institute.
2. Adams R. and Page J. (2005). *Do International Migration and Remittances Reduce Poverty in Developing Countries?* World Development Vol.33, No.10, pp. 1645-1669.
3. Ahmed V., Sugiyarto G and Jha S. (2010). *Remittances and Household Welfare: Case Study of Pakistan*. ADP Economics, Working Paper Series. Asian Development Bank, Mandaluyong, Philippines.
4. Alemayehu G, Kibrom T., and Melekt A. (2011). *Remittances and Remittance Service Provider in Ethiopia*. IAES Working Paper Series NO.A02/2011, Addis Ababa, Ethiopia.
5. Andersson L. (2012). *Migration, Remittances and Household Welfare in Ethiopia*. Paper in progress.
6. Barajas A., Chami R., Fullenkamp C., Gopen M. and Montiel P. (2009). Do Workers' Remittances Promote Economic Growth? IMF Working Paper 09-153, Washington D.C.
7. Beyene M. (2011). *The Effect of International Remittances on Poverty and Inequality in Ethiopia*. JEL Classification: F-24, I-32, O-15.
8. Chukwuone et al (2012). *Analysis of Impact of Remittance on Poverty in Nigeria*. Working Paper 2012-09, Partnership for Economic Policy.
9. Cox-Edwards A. and Rodriguez-Oreggia E. (2009). *Remittances and Labor force Participation in Mexico: An Analysis using Propensity Score Matching*. World Development, vol.37, No. 5, pp. 1004-1014.
10. Franssen S. and Kuschminder K. (2009). *Migration in Ethiopia: History, Current Trends and Future Prospects*. Paper Series: Migration and Development Country Profile, Maastricht Graduate School of Governance (MGSoG).
11. Iqbal Z., Sattar A. (2005). *The Contribution of Workers' Remittances to Economic Growth in Pakistan*. Research Report NO.187, Islamabad, Pakistan.
12. López-Córdova E. (2005). *Globalization, Migration, and Development: The Role of Mexican Migrant Remittances*. Economia, 6(1), pp.217-256
13. Qayyum A., Javid M. and Arif U. (2008). *Impact of Remittances on Economic Growth and Poverty: Evidence from Pakistan*. MPRA Paper No. 22941, Pakistan Institute of Development Economics, Islamabad.
14. Ratha D. (2007). *Leveraging Remittances for Development*. Policy Brief, Migration Policy Institute, June 2007.
15. Sharma K (2009). *The Impact of Remittances on Economic Insecurity*. DESA Working Paper No. 78.
16. Taylor J.E., Mora J., Adams R., and Lopez-Feldman A. (2005). *Remittances, Inequality and Poverty: Evidence from Rural Mexico*. Working Paper No. 05-003, Giannini Foundation for Agricultural Economics.
17. United Nations Development Program (2009). *Human Development Report, Overcoming Barriers: Human Mobility and Development*, UNDP, New York.
18. World Bank (2011). *Migration and Remittances Fact Book 2011, 2nd ed.* The World Bank, Washington DC.

This page is intentionally left blank