THE HOUSEHOLD LEVEL ECONOMIC IMPACTS OF INTERNAL DISPLACEMENT: IN CASE OF SNNPR GURAGE ZONE MESKAN AND MAREKO DISTRICTS

MSc. THESIS

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WOLKITE UNIVERSITY, WOLKITE, ETHIOPIA

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ADVISORS' APPROVAL SHEET

This is to certify that the thesis entitled "The Impact of Internal Displacement on Household Economic Performance: Case of SNNPR Gurage Zone Meskan and Mareko District" submitted in partial fulfilment of the requirements for the degree of Master's with specialization in Developmental Economics, Department of Economics, College of Business and Economics/School of Graduate Studies, and has been carried out by Nuradis Nesru; ID .No BEGR/014/12, under my supervision. Therefore, I recommend that the student has fulfilled the requirements and hence here by can submit the thesis to the department.

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We, the undersigned, members of the Board of Examiners of the final open defence by Nuradis Nesru have read and evaluated his thesis entitled "The Impact of Internal Displacement on Household Economic Performance: Case of SNNPR Gurage Zone Meskan and Mareko Districts", and examined the candidate. This is, therefore, to certify that the thesis has been accepted in Partial fulfillment of the requirements for the degree masters of Science in economics specialization in developmental economics.

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STATEMENT OF DECLARATION

First, I declare that, this thesis is the result of my own work and that all sources or materials used for this thesis study have been duly acknowledged. This thesis is submitted in partial fulfillment of the requirements for MSc. degree of economics at Wolkite University and to be made available at the University's Library under the rules of the Library. I confidently declare that this thesis study has not been submitted to any other institutions anywhere for the award of any academic degree, diploma, or certificate. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgement of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by department when in his or her judgment the proposed use of the material is in the interests of scholarship. In all other instances, however, permission must be obtained from the author.

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Wolkite University, Ethiopia August, 2021

This MSc thesis has been submitted for examination with my approval as Thesis advisor.

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Place and Date of Submission:- August 25/8/2021, Wolkite Ethiopia

DEDICATION

This thesis is dedicated to: The wonderful people residing in the Meskan and Mareko district of Ethiopia, and my loving family.

List of Abbreviation and Acronyms

ATE Average Treatment Effect

ATT Average Treated Treatment

BR Bias Reduction

CIA Conditional Independency Assumption

DRC Democratic Republic of Congo

DTM Displacement Traking Matrix

FD Forced Displacement

GRID Global Report of Internal Displacement

IDP Internal Displeased People

IDMC Internal Displacement Monetary Centre

IOM International Organization of Migration

KM Kerner Matching

LLM Local Linear Matching

NNM Nearest Neighbour Matching

PSM Propensity Score Matching

SB Standard Baise

UN United Nation

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ABSTRACT

This study investigates the ex-post impact of internal displacement on household economy in case of SNNPR Guraghe Zone Meskan and Mareko districts. Moreover the study has assessed the economic performance of displaced household due to displacement phenomenon. For quantitative analysis both displaced and host community respondents were drawn and cross-sectional survey data were collected from 613 households in study area. Propensity score matching method was employed to analyze the impact of the internal displacement. This method was checked for covariate balancing with a standardized bias, t-ratio, and joint significance level tests. Furthermore, sensitivity analysis of the estimated displacement effect to unobserved selection bias was checked using the Rosenbaum bounds and Mentel-henzel procedure and estimate spillover effect. The Results revealed that displacement phenomena are a significant negative impact on displaced household and spillover effect on host community economic performance. The findings indicates that 74.63 percent negative impact of annual income of internally displaced household is seen at a 5 percent significance level. Similarly, for other outcome variable such as household consumption, wage, production, access to education, and access to health care are negative and unemployment are positive and significant effects. The sensitivity analysis also shows that the impact result estimates are insensitive to unobserved selection bias. Finally the study recommends, government to create urgent cure to return the displaced household into the community of origin and to compensate for destruct property specially the cost of basic needs and government to create work opportunity to displaced household with in displaced area as well as return area are possible resolution.

Key word:- *Internal Displacement, Propensity Score Matching, Sensitivity, Spillover effect*

1. INTRODUCTION

1.1. Background of the Study

Millions of people around the world are forced to flee their places of habitual residence each year including in the context of conflict, violence, disasters and climate change, and remain displaced within their countries of residence, more live in situations of protracted displacement or face chronic displacement risk. Displacement of people is ubiquitous. As several scholars and experts have remarked, it is not a recent phenomenon but what has provoked a development in the discourse and maximum international concern over the last decades is the complexity of displacement, the escalating figures and the axiomatic numerous reasons for displacement (Muguruza ,2018 and Lichtenheld, 2021).

Even though the devastating effect of displacement may not be experienced in the same way, conflict induced displacement may have regional implications too. To further extrapolate, if there is a conflict in one country the effects could affect in other countries and displacement could flare up into other neighbouring countries too.While States, international governmental and non-governmental organizations, scholars and policy makers in the post-conflict time have all been engaged to ascertain a solution for displaced people globally displacement situation is getting appalling and abysmal day in and day out (Maqbool, 2019).

Displacement is an all-pervasive phenomenon particularly in the developing world. The complex story of displacement does not end at leaving the conflict-ridden region or even after arriving at a comparatively peaceful place. When exposed to atrocities and difficulties in conflict situations or natural calamities, civilians are forced to flee their homelands. But the flight does not end the spiral of sufferings that ensue in aftermath of the displacement in terms of a protracted struggle for survival, settlement and return (Williams *et al.*, 2019).

Internal displacement has confirmed the devastating consequences it can have for displaced people, including their dependents, hosting areas, communities of origin, as well as the society as a whole. These impacts can damage the wellbeing of internally-displaced people but also limit their ability to contribute to the economy of household while generating specific basic needs that must be paid for by the internal displaced people, hosting societies, governments, or other aid providers (Frobi and Funin, 2018).

People are forced from their homes but remain within their own country, the key characteristics of internal displacement are its coercive nature and the fact that affected populations do not

cross an internationally recognized border and increasingly global and protracted phenomenon that requires concerted global attention. Displaced people among the world are facing poverty, lost educational access, unemployment, marginalization and insecurity. The most urgent a affect threats to their physical safety, wellbeing and human rights. It can also have significant and long-lasting effects on their socioeconomic development (Kalin *et al*., 2014).

The effects of the issue interrupts children's education and separates them from their familiar school environment, teachers and classmates, sometimes for months or even years. When they are able to go back to school, whether in their community of origin, host area or in a camp, they have to make up for lost time while managing the stress and trauma associated with their displacement nearly every country affected by displacement yields sign of lower enrolment and achievement rates and higher drop-out rates among displaced children (Porter *et al.,* 2011).

Most of the educational impacts of internal displaced people in may the loss of livelihoods, loss of documentation, the absence and inadequacy of schools. Disruption to education can harm the mental health of displaced children, many of whom may already be traumatised by their experiences, and heighten their psychosocial instability. It can affect social cohesion and increase gender inequalities, damaging social life in the short and longer term. It can also reduce children's potential earnings and livelihood opportunities as adults, creating a poverty trap that endure (Duenas *et al.,* 2013).

Individuals are forcibly displaced to a different region of residence, their economic outcomes was affected. Some of the most important of these outcomes is income, wages, health, education, childcare, labour force status, and expenditures, the labour structure, access to public services, housing characteristics, and household expenses, among other factors. Ultimately we are not be able to adequately resolve the global crisis of internal displacement until durable solutions are found, and States and societies are united in sharing responsibility in responding to displacement, in preventing and reducing the risks of crises, and in resolving conflicts as urgently as possible to minimize (Ceriani, *et al.,* 2018).

Consistent with prior evidence from Blattman and Miguel (2010), find that conflicts produce displacement of the population, which in turn produces shock in economic performance of household. Individuals are displaced, they have problems in accessing new employment given that their social networks are reduced (Castilla, 2005) or their wages may be lower reflecting a mismatch between their specific skills and the jobs available in the region. Thus, to the extent

that displaced workers may have poorer economic outcomes, we may see violent, conflicts and their associated Displacement flows as a source of low economic performance.

1.2. Statement of the Problem.

There are 20 to 25 million internally displaced people: 10 million in Africa, 5 million in Europe, 5 million in Asia, and 2 million in the Americas (Duenas, 2013). Beyond the statistics are human beings in desperate straits separated from their homes, communities, means of subsistence, often with nothing but the clothes on their backs, vulnerable to disease and hunger (Cohen, 2012).

Ethiopia is one of the poorest countries in the world and among which are experiencing many significant displacement issues occur for different direction and different reason in our country today. Ethiopia is a home of an increased number of internally displaced People who left home and usual residence due to the intensification of interethnic conflict (Yarnell, 2017).

The new home of the displaced away from their old home which they were forced to leave, pushes the displaced to the brink of a paradox they are often not welcome in their new home and their 'old home' is not their own at least for the time being. The volatile situation exposes the displaced to myriad problems: they are herded together in camps, they are in many cases exposed to adverse climate conditions and consequent health hazards, they have no steady supply of food, water and medicines, they have no comfort of social bonding , setting and the list goes on (Verme *et al.,* 2021).

Unpleasantly peoples were internally displaced, loss their life and properties as per conflicting interests of the people over border, resource and identity continued stiff especially the ethnicity apparatus of the state was vital in altering local, regional and border conflicts along identity lines so as to exacerbate violence and massive displacement (Asnake, 2016).

Relevance of the topic is unarguable and the displacement phenomenon are impact on all kinds of household and community economy. The distinguishing evils of displacement phenomena rests upon restricting and countering people's free mobility, its harm on peaceful interaction of a multi ethnic society, escalating conflicts to engender internal displacements. The situation of displacement is influence to people's physical health, psychological wellbeing, their ability to secure, education, basic infrastructure and unemployment can weigh heavy on the economy at the individual, community and even national level (Salleh *et al.,* 2018).

The financial resources needed to support those affected and the reduction in livelihood that a displacement phenomenon can cause represent a cost that has yet to be estimated. The inquiry of what challenges, prospects and economic performance are countering when considering the local integration of internal displaced household as sustainable solution remains the important question left. Knowing of this fact, the researcher believed that this issue need to be researched since displaced household as it is inserting populations in a densely populated community and a multifaceted process that encompass an aspect of social, economic, cultural and institutional, resource and policy requirements (Carrillo, 2009).

This study is motivating us the impact of Displacement on household economic performance in study area is main issue. Taking the gesture of displeased households who is integrated in Guraghe Zone Meskan and Mareko district and the complications of problems facing displaced households challenge and prospects are need to offer the body of knowledge that enabled internal displaced households to integrate in Meskan and Mareko district are great importance to the studies.

In various studies, the impact of internal displacement measured in single outcome variables using a uni-dimensional structure, like Libenza (2014), the impact of internal displacement on workers wage. However, this study was measured the impacts of internal displacement in multi-dimensional level of household economic performance using propensity score method (PSM). Thus, methodology which the study adopted and the study assessed the impact of internal displacement on displaced household economic performance and the spillover effect for not-displaced household at different form of indicators to compare the status of household who have displaced and not displaced to a given community of Meskan and Mareko district.

In addition based on empirical studies and the situation of phenomenon the impact of internal displacement on household economic performance has received long paid little attention and most of studies have focused on the impact of displacement on host-community Verme *et al*, (2020), but in this studies investigated for displaced household themselves. The impact of internal displacement on displaced household was studies in different department but the economics literature on this topic is still infrequent and prior studies in this topics is dearth. Absence of previous studies which assess in all economic performance measurement at jointly and the studies which utilized both empirical and theoretical analysis to be used in model are intermittent, as far as the researcher's knowledge concerned compel the problem was researched.

1.3. Research Questions

1. What are the factors that affect displaced household behind displacement in study area?
2. What is the spillover effect of internal displacement in study area?
3. What are the impact of internal displacement on household economy in study area?

1.4. Objectives of the Study

1.4.1 General Objective

The general objective of the study is to assess the impact of internal displacement on household economic performance in case of SNNPR Gurage Zone Meskan and Mareko district.

1.4.2 Specific Objectives

Having the above general objective, the study was endeavor to realize the following specific objectives.

1. To identify the factors that affect displaced household behind displacement in study area.
2. Investigate the spillover effect of internal displacement in study area.
3. To evaluate the impact of Internal Displacement on household economy in the study area.

1.5. Scope and limitation of the Study

This study was delimited to assess the impact of Internal Displacement on household economic performance in case of Gurage Zone Meskan and Mareko district since 2018_ 2021s. Particular focus is on the impact of internal displacement on household economic performance measure interms of income, wage, production level, consumption, access to education, access to health care and unemployment of displaced household.

The internally displaced households in Meskan and Mareko district at the continuum, conflict with Meskan and Mareko district and the ethnic group of both districts were forced to displace back to their place of origin and integrated in the community since their villages and properties completely destruct, home loses and integrate in stiff condition, this was delimite the study area in Meskan and Mareko district.

The study although limited itself, theoretically and empirically in economic dimensions of internal displacement and socio-economic changes for displaced households in study area. Geographically, despite the findings can have vital implications for districts that have similar contexts with the study area, conclusions of this study refer only to places within the confines of Meskan and Mareko district. Lastly, as data collection method, the study heavily relied on household survey questionnaire and key informant interview.

1.6. Significances of the Study

As the study intensive on the ex-post impact of displacement on displaced household economic performance. The information provided in this study has much importance for policy makers and scientific community in terms of providing insights, knowledge and due attention to the phenomenon. It can also potentially contribute for the growing impact evaluation literature in at least identifying casual effect of displacement on different outcome variables at household level. Examining the economic performance of household, challenges and the prospects of Internal Displaced households from home and permanent residence of Meskan and Mareko district, this study provided the following significances. The first significance is to identify the existing challenges affecting the economic performance of household in study area.

Second the study has significant to policy making process and policy frame works concerning the efficacy of internally displeased household's local integration. Still an absence of any economic adminicle to the displaced household in study area is a critical issue so that this study serves as a frame of reference for policy makers to come up with the local integration solutions of internal displaced households in Ethiopia as well as study area. Third, this study serves as a literature for researchers who wants and desired to go further and conduct a study on this pressing problem. This is because the condition of displacement is current and hot issue also have the area is poorly investigated by academicians and researchers at the national and local levels.

1.8. Organization of the Study

The thesis consists of five main chapters including this chapter, which provides general information in its introduction. Chapter two is a review of literature (empirical and theoretical). Chapter three presents the methodology used in this study while the fourth chapter is about the results and discussion. The last chapter, chapter five, presents the summary, conclusion and recommendations drawn from the result.

2. LITERATURE REVIEW

This section draws on literature in the area of displacement phenomenon and its impact on economic performance. The chapter reviews literature by other scholars especially studies touching on displaced household and host-community economic performance. The chapter addresses history of internal displacement, the theoretical framework on which the study is build and then presents empirical review of literature on different measurement of economic performance.

2.1. Theoretical Literature Review

As national and global actors seek to find concrete solutions to Internal Displacement there is a need for a greater understanding of the diverse impacts of displacement, not only on the lives of internally displaced people, but also on host-community and ex-local populations,While there are a growing body of literature on the socio-economic impacts of displacement flows on communities in the world (Nkwatoh *et al.,* 2021).

2.1.1. Internal Displacement in the World

The UN estimates that almost 55 million people around the world have been forcibly moved from their homes into refugee and internally displaced person (IDP) camps (UNHCR, 2010). Unlike other forms of exodus, where the choice of movement can be an influential problem for the household, the majority of displaced people are forced to leave their homes and land with little more than what they can carry. Such movement is a large economic shock to many households. The ability and speed of people to mend from such shock has implications for both household economic performance and national long-term growth (Shultz *et al.,* 2019).

Much focus has been placed on the hundreds of thousands of internal displaced population, asylum seekers and migrants who have put their lives at risk to reach European shores their bravery and despair has drawn much attention to the marvel of displacement. In reality though, they represent only the tip of an iceberg of those the Syrian conflict has uprooted, around 6 6 million people have been displaced internally away from the media glare and out of reach of humanitarian agencies, many struggle to survive in subhuman conditions (IDMC., 2017).

A similar shift is needed in analysing the causes and consequences of displacement and impacts on economy we tend to think in terms of single, isolated triggers, but the reality is far more complex displacement effect economic, cultural and political ostensibly caused by conflict has

been traced back to root causes such as drought and environmental degradation, and a food crisis that suited a famine because of government neglect and changing regional demographics establishment of crowded informal settlements and authorities inability to enforce building and safety standards formed the back-drop to the mass displacement caused by the 2010 Lebanon conflict Such complexity has profound implications when it comes to preventing, responding to and resolving displacement Failure to conduct a thorough assessment means responses was fragmented at best and ineffective at worst (Mohamed, 2020).

A comprehensive approach must address political factors and improve resilience to a range of risks so people do not have to flee in the first place this is development and governance work when displacement becomes inevitable humanitarians attend to more immediate needs but they must work with the development sector if sustainable solutions are to be achieved. There is a strong tendency of displacement becoming more long and more of a development challenge to take some of these considerations into account, we are presenting our estimates of internal displacement in 2015 in a fundamentally new way with figures on people displaced by conflict, violence and disasters in a single report (Domar and Wilkinso, 2018).

The Global Report on Internal Displacement (GRID) aims to provide a more holistic picture of the displacement issue, regardless of cause and economic impact of in time for the World Humanitarian in Istanbul, it also aims to climax displacement as a multi- dimensional challenge that must involve humanitarian, sustainable development, peace-building, risk reduction and eradicate poverty and to prevent economic of displacement (Al-Mahaidi *et al.*, 2020).

2.1.2. Internal Displacement in Africa

Africa has many more internally displaced People, were about 11.8 million internally displaced in sub-Saharan Africa though the consistent figure for internal displacement monitoring center 2019. The Guiding Principles on Internal Displacement are commonly recognized as the prevailing normative framework for IDPs and while these principles are drawn from binding international law, the Principles themselves are not a legally binding instrument. Nor is there a dedicated UN agency to address the needs of IDPs (though progress has been made in recent years in assigning responsibility for IDP issues to existing UN agencies.) Rather it is the responsibility of national governments to safeguard and contribute those displaced within the borders of their countries and there are several effects on livelihood, labour market, production and economic performance of the countries (Mooney *et al.*, 2015).

Africa has long been the region with the largest number of IDPs in the world. Globally most internal displacement is protracted defined as displacement lasting more than five years and the displaced peoples are hunger and misses of several needs, income, house and infrastructure, education and health in case of displacement (Council, 2015).

IDPs in Darfur – estimated at nearly 2 million people – live largely in camps which are difficult living environments, but which also provide services not available in rural areas. In addition to insecurity, the lack of education and health services in communities of origin complicates efforts to find durable solutions. Moreover, protracted displacement often co-exists with new displacement due to fresh outbreaks of conflict as evident today in the current clashes between Sudan and South Sudan. Other countries, such as the Democratic Republic of Congo and the Central African Republic have both long-standing populations of IDPs and new IDPs created by recent conflicts (Kamara *et al.,* 2017).

2.1.3. Internal Displacement in Ethiopia

Ethiopia is one of the conflict- prone country, characterized by ideological, religious, regional, ethno-linguistic, sociological divisions (Geda, 2016). The consequences have been devastating: loss of life and the destruction of substructure and negative impact on growth and development. At times even existence of the Ethiopian polity has been threatened and conflict is the major explanatory factor for the country's poverty.

Displacement is the major and central explanatory factor for the poverty and backwardness of Ethiopia. It not only creates human misery but also suppresses economic activity. Resources shift from productive to destructive activities, reducing growth or negatively affected its quality and composition. Economic revival intensifies following conflict. Such is the case under the current government (Geda *et al.,* 2018).

2.1.3.1. The Nature and Causes of Internal Displacement

Formal definitions identifying which groups require the most protection and assistance have helped governments confront these challenges. The Annotations to the Guiding Principles on Internal Displacement define as the involuntary or forced movement, evacuation or relocation of groups of persons within internationally recognized state border (Belayneh, 2020).

Internal displaced people must be distinguished from refugees for whom protection is provided by existing international mechanisms. As defined in such mechanisms, refugees are persons who, unlike IDPs have crossed international borders and have thus lost the protection of their

home countries. IDPs, having remained in their home countries, are entitled to the protection of their home-country governments. It is therefore incumbent upon national governments to provide such protection (Musgrave *et al.*, 2017).

2.1.3.2. Major Causes of Internal Displacement on Ethiopia

Ethiopia is one of the top three African countries with the core internally displaced populations due to conflict and violence in 2018 were Ethiopia, the Democratic Republic of Congo (DRC) and south Sudan. The top three countries with the largest number of IDPs due to disasters in 2018 were Myanmar, Kenya, and Afghanistan. An overlap of conflict and disasters repeatedly displaced people in Afghanistan, Nigeria, Somalia, and other countries (Kälin, 2018).

It is a fact that Internal Displacement is a serious problem in Ethiopia today than ever before. Persons or groups who have been forced to flee their homes and habitual residences suddenly or unexpectedly in large numbers are increasing in the recent time than ever before due to communal violence or ethnic tensions, governance crises such as poor security, development-induced causes such as planned resettlement programs and relocation, and natural disasters related causes (Alfa Shaban *et al.,* 2019).

2.1.3.3. Conflict as the Cause of Internal Displacement

Communal violence and ethnic tensions played the primary role in displacing huge numbers of people in different parts of the country. According to the Displacement Tracking Matrix (DTM) (2019) report, Ethiopia had ranked at the top level of severe internal displacement in the world. Very large numbers of people fled their permanent residence due to ethnic clashes between and or among different regions of the country.

In line with this, (White, 2010) site assessment found that communal conflict was the primary driver of displacement in Ethiopia. About 1,623,716 people were displaced because of the conflict before 2018. The ethnic federal structure and ethnic conflict were identified as the primary causes of internal displacement in the country. In the same manner, several studies conducted on internal displacement showed that the persistent happenings of communal violence in Ethiopia are the major driving forces that rapidly increase the number of people who fled from their habitual residence and homes (Mehari, 2017). According to Mehari, in terms of the humanitarian crisis (i.e., IDPs), Ethiopia becomes the first country in the IGAD region to have the highest IDPs because of inter- communal conflict. Hence, the most contributing factor which causes people to be internally displaced throughout the country in Ethiopia today is communal strife or otherwise termed as ethnic-based violence.

The conflict-induced displacement situation that commenced in April 2018 is not an exception to the narrative of conflict-Induced displacement literature. (Vernier, 2019) Opines that, conflict-induced displacement has been predominant in Ethiopia. Likewise, the case of the Guji and Gedeo highlights the fact that, an interconnected conflict and communal violence contributed enormously to the IDP's situation in Ethiopia which evolved in one of the worst humanitarian crises in the Country.

The key findings of the Global Report on Internal Displacement (2019) stated that protracted crises, communal violence, and unresolved governance challenges were the main factors behind 10.8 million new displacements associated with conflict and violence. Ethiopia, the Democratic Republic of the Congo (DRC) and Syria accounted for more than half of the global figure (IDMC, 2019b). Ethiopia has ranked at the top of the internal displacement hierarchy. This implies that the internal displacement of the people in Ethiopia is much higher than any other country because the highest figure of IDPs was recorded in the country in the years 2018 and 2019.

Table 2 1: Number of persons displaced due to conflict in Ethiopia

Internallly Displaced people in diferent regions by different reason					
No.	Region	Before 2018	2018	2019	Total
1	Amhara	23, 437	57, 115	9, 331	89, 833
3	Oromia	554, 306	112, 930	6, 973	674, 209
4	Gambella	16, 010	3, 085		19, 095
5	Tigray	77, 246	14, 462	2, 834	94, 542
6	SNNRP(Gedeo zone)			690, 364	690, 64
7	SNNRP(Gurage zone)				45000
8	Somali			722, 180	722, 180
Grand total		670, 999	187, 592	1, 431, 682	2,333,223

Source: DTM, Round 16 data, from March to April, 2019

2.1.3.4. Climate Induced Causes of Internal Displacement

Environmental factors such as natural disasters (i.e., drought, famine, landslides, and floods) were taken as the second most contributing drivers of internal displacement in the country. Findings conducted by DTM from March-April (2019) show that a total of 499,336 persons were evacuated from their homeland and habitual residence due to climate-induced factors. Furthermore, displacement caused by environmental factors such as drought, seasonal floods, flash floods, and landslides are triggering causes of domestic displacement in the country. In most cases, regions such as Afar, Oromia, and Somali are highly affected due to environmental factors (DTM, 2018).

According to site assessment done by DTM (2019) round 16, the highest number of people were displaced (i.e., 344, 552 IDPs) in the Somali region due to climatic born conditions. This is the largest number of IDPs recorded in Ethiopia in 2019. The study conducted by Mehari stated that: Between August 2015 and April 2016, there were 454,457 IDPs caused by drought, flooding, local conflicts, and wildfires. From these, 64.5 percent of people were displaced in the Somali region due to flooding and 10.6 percent of IDPs were from Southern Ethiopia due to flooding and conflict (Mehari, 2018).

In line with this finding, Terminiski (2013) termed that population displacements are associated with sudden natural hazards and industrial accidents (disaster-induced displacement), and environmental transformations (environmentally-induced displacement). A comparable study conducted by Adeola, (2020) found that both ethnic federalism and climatic drivers, such as famine and drought are triggering factors that forced the people to leave their homes, properties and if it is serious, leave their homes without having their children in Ethiopia. From these all, one can infer that the natural disaster-induced factors are the 2nd most contributing drivers of internal displacement in Ethiopia.

2.1.3.5. Other Related Causes of Internal Displacement.

Poor governance, otherwise termed as bad governance (such as poor security and human rights violation), factors related to development programs were identified as the third contributing drivers of forced internal migration and or displacement in Ethiopia (Alobo, 2016).

Drivers attributed to planned resettlement programs and relocations due to development projects by the Ethiopian government and regional states were taken as other causes which have led to forced displacement of the people in the country. Despite its positive progress towards assuring the food security of the people in the country, the new resettlement program developed as the component of the Food Security Program has aggravated forced internal migration in the country (Djigsa *et al.,* 2019).

Ambaye (2015) found that the government of Ethiopia has massively implemented forced resettlement programs that displaced more than 0.6 million people to relocate them to areas traditionally inhabited by ethno cultural indigenous and minority groups, and thereby led to gross human rights violation and vulnerability of women and children of IDPs. Inadequate preparations during settlement action and lack of prior consultation between the host communities and the intended settlers as well as weak governability are negatively causing other localized grievances between the host community and IDPs. A similar study conducted

by (Van der Ploeg, 2017) identified government settlement policies and systematic human rights violations as causes of internal displacement.

2.1.4. Internal Displacement in Gurage Zone

Renewed inter-communal violence along the borders of Gurage Zones Meskan and Mareko district was estimated 45000 people are reported to have been displaced, by this latest wave of conflict, and are currently settled in Meskan and Mareko district of gurage zone, either with relatives or in public structures like schools, mosques and churches.

Civilian deaths, damage to properties and to public infrastructures, including schools and health facilities this situation has manly influenced economic performance of household. Government security forces are deployed to the area to prevent the escalation of the conflict and for protection of civilians, but the situation remains tense and also still now to displaced.

Internal Displacement in Gurage Zone Meskan and Mareko district are ethnic based the case of border line of the nine (9) Kebele induced displacement. In the case of conflict several basic and temporal resource are destruct and misses there house, infrastructure, injured, hunger, unemployment and other health and environmental problems leading to failure of household economic performance. The displaced household are many challenges in the camps and now the peoples of the area after displaced time have highly hagridden and there is no any economic support to the people then the area is mainly imperative attention to the problem.

It was found among the IDPs in Meskan and Mareko that lack of economic and livelihood factors include access to health care, education security for residential purposes, opportunities to continue former occupations, availability of infrastructural facilities, farming and trading, ability household custodian to financial aid.

2.1.5. Economic Relation and Livelihood of Displaced Household

The study of livelihoods has generally been followed in the disciplines of economics as well as in development studies. “Livelihood” generally refers to the means used to maintain and sustain life and in particular, to the resources, including household assets, capital, social institutions, and networks (kin, village, authority structures), and the strategies available to people through their local and global communities (Chambers and Conway, 2002).

There is considerable literature on internal displaced household relations and the impacts of displaced and forced migration on (IDPs) much of which focuses on livelihood opportunities constraints, and competition because livelihood issues that are so central to refugee-host

relations in most contexts (Porter *et al.,* 2008). Chambers and Conway (2013) define livelihood as constituting capabilities of people tangible and intangible assets, and activities undertaken to make a living. Jacobsen's definition is more relevant for situations of IDPs and host relations.

In communities facing conflict and displacement, livelihoods comprise how people access and mobilize resources enabling them to increase their economic security, thereby reducing the vulnerability created and exacerbated by conflict, and how they pursue goals necessary for survival and possible return (Jacobsen, 2002).

Economic relationships and livelihood situation are important and influential factors for the IDPs to determine the place of residence. Economic suffering among the IDPs is a related concern in many cases of IDPs settlement in the host communities. Lack of access to arable land is a recurrent factor undermining the livelihoods of displaced people among the hosts. In rural reception areas, this is sometimes mitigated by the capacity of local social and economic structures to offer alternative access to land or other productive resources (Black *et al.,* 2015).

2.2. Empirical Literature Review

There are numerous studies that have empirically investigated the various economic impact of displacement on household. A focus of the review is dictated by the existing literature which concentrated its efforts in understanding the impact on economic performance (Assaad, 2018).

Ibanez and Velez (2008) argued that colombia are concentrate on the conditions that lead civilians to flee their communities, rather than the consequences of such decisions the studies have analyzed the consequences of internal displacement. For instance, Garay and Barberi (2009) analyzes the situation of the displaced in Colombia, showing a high level of inequality and insecurity, where some basic rights such as identity, health, education, housing, and income generation are infringed.

Moya *et al*, (2006) study the victims of forced displacement arriving in the cities from rural areas, with large numbers who used to work in the agricultural sector encountering difficulty in access to and integration in the urban labor market. The resarcher find that unemployment rates soar during the first months of settlement: unemployment rates for household heads increase from the first period up to survival, then ease-up after displacement and displaced households fare worse than the urban poor. Furthermore, these problems are concentrated among individuals with low levels of education.

Kalindo *et al,* (2010) states that Conflict displacement and labour market outcomes in post-conflict of Bosnia and Herzegovina find that displaced Bosnians are less likely to be working relative to the people who stayed. Displaced men experience higher unemployment levels, and displaced women are more likely to drop out of the labor force.

Jacobson *et al,* (2005) argued that regardless of whether displaced people in Nigeria are settled with the host people and the host regions administratively often consider that the result of IDP settlement with challenges, such as excessive resource demands and associated environmental degradation, as well as security threats. The potential impact on the livelihoods of the poorer hosts was raised decades ago by Chambers (2006) who emphasized the particular dangers in scarce land, health care, education labor-abundant regions.

A study by Whitaker (2002) on refugees in western Tanzania underlines the significant variety of experience, in terms of impact on the IDPs livelihoods, showing that the host practices are strongly influenced to gender, age, class, settlement patterns, the local socioeconomic situation, and host-refugee relations.

Paserman and Toklle (2013) claim that displacement impact on host-community economic performance of Democratic Republic of Congo (DRC) measured in terms of wellbeing and market outcome is the main outcome of interest to understand whether the net effect of displacement phenomenon is positive or negative for the host population. Negative changes in market outcomes such as increases in consumer prices or decreases in wages damage consumers and workers but benefit producers and owners of assets. The net effect on household well-being is not obvious when wages and prices change. Besides increasing the labor supply and creating a demand stimulus on consumer markets, refugees can also have an impact on productivity and structural change.

Calderón-Mejía *et al,* (2016) use the exogenous nature of forced displacement to understand how migrations from directly affected areas influence labour markets not directly touched by conflict, finding that these migrations substantially reduce wages for urban unskilled workers for jobs with forced migrants. Focusing on the consequences of forced displacement on wages and income, small number of studies have recently analyzed this topic. Marissa *et al,* (2007), find evidence that displaced individuals suffer a significant decline in consumption and wage. Jugule (2010) find that victims of civil conflict face difficulties in generating income, as labor income per equivalent adult declines by half percent.

Yigzaw. G (2019), study showed that Ethiopian conflict (inter-communal violence, regional political instability, ethnic tensions and conflict), climatic induced factors (landslides, flooding, famine and drought) and the country's policy of resettlement and relocation (development-driven causes), and poor governing capacity of the country were major contributing factors which aggravated the internal displacement in the country. The study revealed that internal displacement disrupted the social intimacy, economically affected the IDPs and the host communities, led the IDPs into homelessness, brought economic hardship, made them to be more vulnerable to psychological violence and led IDPs into death.

The results of this literature are linked to our study as the impacts of displacement on the financial assets, human capital, psychological well-being and economic performance of forced displaced household. Most of the studies covered are published in peer-reviewed international journals and most of these journals are top ranked journals in their respective disciplines.

2.3. Summary of Literature and Knowledge Gap

The literatures that are discussed so far showed that,impact of displacement on difference economic performance indicator separately. However, most of the empirical literatures that are discussed so far appeared to have focused on studies that were conducted in the displacement impact on different countries outside in our country Ethiopia. Almost all studies are described as natural experiments by the researcher but face major measurement, identification challenges and availability of micro data is one of the challenges also several studies have been undertaken ex-post, after the displacement phenomenon has take place, the unexpected nature of the crisis and the randomness of the allocation of displaced persons are two elements used to defend the natural experiment assumption (Monsalve *et al.,* 2020).

There are several factors affecting results that should be considered when comparing these results across countries and across displacement episodes. The income per capita of the host country is an obvious factor which has also implications on the economic structure of the labor and consumer markets' institutions and the degree of formality of these markets (Kletzer, 2014).

It also determines whether international aid or increased government spending accompany these crises or not. Host countries may be big or small, some may be going through periods of growth and others through periods of recession. The legal framework and policies in place (right to work, freedom of movement) are different across countries and sometimes different

within countries along space or time. Some studies focus on displaced populations hosted in camps and others on those outside camps, some of the displaced live in urban areas and others in rural areas. Some displaced peoples move to countries with similar cultures, profiles and languages, others do not. Some of the displacement episodes studied are massive in size while others are relatively small and the size relative to the host population and displaced people themselves can vary significantly across studies. Most inflows are sudden, but some are spread over a long period of time. Also, very few studies consider the role of international aid, which is a confounding factor to the displacement shock (Alix-Garcia *et al.*, 2010).

Based on empirical studies, Economics literature has little attention to this phenomenon with only occasional studies of mostly historical interest until this issue became popular among media outlets today this is a correct assessment for the period in question. The impact of internal displacement on household economic performance has received long paid little attention and most of studies have focused on the impact of displacement on host-community but the studies explored for displaced household are rare. The impact of displacement on displaced household was studied in others department descriptive but the economics literature on this topic is still infrequent and prior studies in this topics is dearth. There is absence of prior studies which assess in multi-dimensional measurement of economic performance jointly and the studies which utilized both empirical and theoretical analysis to be used in model are sporadic, as far as the researcher's knowledge concerned compel the problem was researched.

Generally, this study was rational from prior studies, first the methodology adopted. Second, the study addressed the multi-dimensional impact of displacement on displaced household economic performance. Third, the study checks spillover effect of the displacement for not-displaced household. None of the prior studies have directly analyzed the impact on displaced household economic performance and these characteristics pose unique challenges for crafting state policy that can effectively mitigate the impact of internal displacement and an analysis of the economic consequences of this phenomenon may help to guide public policies aimed at minimizing the negative consequence of internal displacement.

2.4. Definitions and Approaches of Impact Assessment

Different definitions have been given to impact assessment by different organizations and scholars. But the commonly used definition of impact assessment as it is given by Spröhnle (2016) is that it is a process of systematic and objective identification of the short and long-term effects–positive and negative, direct or indirect effect of intervention on economic, social,

institutional and environments. Such effects may be anticipated or unanticipated, and positive or negative, at the level of the individual, household or the organization caused by on-going or completed event.

An impact evaluation assesses the extent to which displacement phenomenon has caused undesired changes in the displaced household. It is concerned with the net impact of an intervention on individuals, households or institutions, attributable only and exclusively to that interventions (Baker, 2018).

Based on the time continuum, there are two types of impact assessment studies. Ex-ante type is about assessing the impact of the likely future environments and of expected impacts from interventions. While ex-post (which this study meant for) evaluates performance, achievements and impacts of the past phenomenon (Beanlands, 2014). The resulting information is used in accounting for the past phenomena, and as a useful input for future planning.

2.4.1. Levels of Impact Assessment

Khandker (2017) comprehensive impact evaluation can be undertaken at two levels (household and community).

2.4.1.1. Household Level Impact

Household level impact refers to the effect of the intervention on the ultimate target group for which the phenomenon is occurred. Impact begins to occur when there is a behavioural change among the potential household. The household level impact deals with the actual intervention of the displacement phenomenon and subsequent effects on production, income, environment and/or whatever others objective (Omoto, 2013). The household level impact can be economic, socio-economic, socio-cultural, and/or environmental.

2.4.1.2. Economic impact assessment

Economic impact measures the combined production and income effects associated with a set of research and development activities (Anandajayasekeram, 2010). The economic impact assessment studies range in scope and depth of evaluation from partial impact studies to comprehensive assessment of economic impacts.

2.4.1.3. Social impact assessment

Social impacts are vital and need to be considered along with the economic and environmental impacts. Social impacts assessment include the effects of intervention of the displacement on

the attitude, beliefs, resource distribution, status of women, income distribution, nutritional implications, institutional implications of the community. These can be assessed through socio-economic surveys and careful monitoring (Vanclay, 2011). It can assist in the process of evaluation of alternatives, and to help in their understanding and management of the process of social change.

2.4.1.4. Environmental Impact Assessment

The importance of environment impact assessment is increasing in economic research and interventions due to the loss of biodiversity. However, there are few countries and research institutions that have formally assessed the environmental impacts associated with displacement (Kakonge, 2009).

2.4.1.5. Institutional Impact Assessment

Kuhlmann (2016) institutions are rules of game, organizations and their entrepreneurs are players. Increasing productivity, whilst strengthening local institutions, has long been an important goal of economics investigation and development.

Organizations play an important role in meeting this goal by improving policy and knowledge base of social, economic and political factors that govern the performance of an economic system, and by strengthening local institutions' capacity and performance. Most impact evaluation studies are often subjected to rigorous appraisals from economic and environmental perspectives, without giving due attention to the institutional aspect of the interventions (Gertler, 2016).

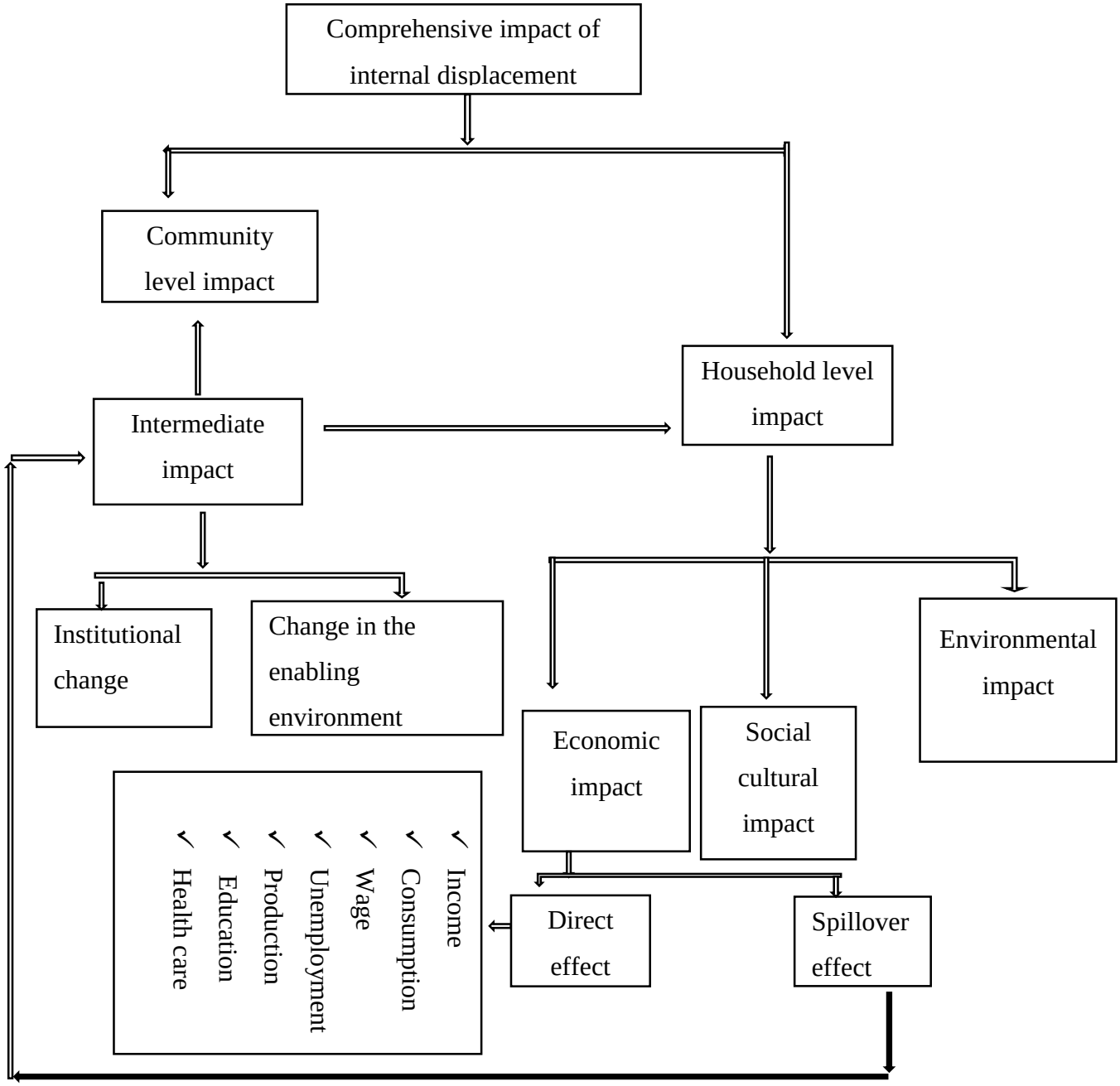
The concrete results and impacts of institutional development can be difficult to see and may take time to emerge. However, information, generated from institutional impact assessment has the great potential to lead to better, more effective actions and institutional performance of a research and development system (White, 2010). Institutional and organizational impact is measured in terms of changes in policy, institutional structure, networking, arrangements and achievements in human capacity buildings.

2.5. Conceptual Farm Work

Internal displacement are extremely influence to the economic performance of a households. The findings of different studies conducted on internal displacement in different parts of the world gives an indication on numerous factors that can influence the household economic

performance. The factors which affect the economic performance of household are categorized into income, consumption, health, education, wage, production and unemployment variables. The diagram of the conceptual framework is shown in Figure 1.1 below, the arrows that indicates the flow of impact of internal displacement on displaced household and their host-community.

Figure 1. 1 comprehensive impact of internal displacement



Source own design

3. METHODOLOGY

This section presents the methodological approach to the study as well as the methods employed in data collection. This section begins by discussing the choice of the research methodology, followed by the study area and sources of data, informant selection and sample size as well as the techniques for data collection analysis. Finally, researcher reflect position as an outsider and how that has influenced the entire study unambiguously with regards to the access to the field, data collection and interpretation.

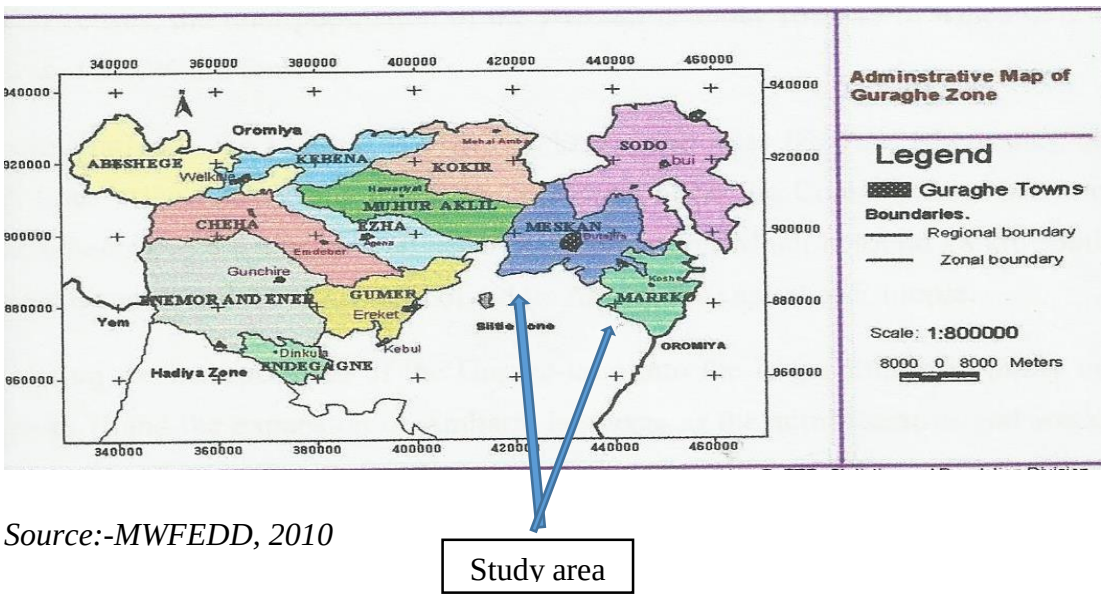
3.1. Description of Study Area

The study was conducted in Southern Nation Nationalities and peoples Regional State, Guraghe Zone, Meskan and Mareko district. Meskan and Mareko district are the two district in Guraghe Zone, SNNPRS. Both Meskan and Mareko is 133 km from capital city of Addis Ababa, 155km from regional capital city of Hawassa and 84 km from Zonal capital city Wolkite. The administrative center of Meskan and Mareko district is Butajira and koshe city.

Both district was located in southern part of the country specifically lying between 7.9935150' -8.2781010' the latitude and 38.2631310'-38.57860' longitudinal line which covers an area of 41958 hectare, of which 74% covers Woyina-Dega or moderately undulating land and 26% dega or high latitudinal area. The district is bordered by, Silte Zone from the south, Sodo district in the North and Edja, Muhr and Aklil and KutazerWelene Districts in the West. It is characterized, among the other districts of the Guraghe Zone by high population size and density, small land holding size, relatively better access to technologies and market service.

Meskan and Mareko district are the two district of the 13 districts and two city administrations in Guraghe Zone, SNNPR. The total population of the district is 289,993 out which 67.2% of them are male and 33.8% are female. There are different economic indicators that are related to farming and non-farming activities in both Mareko and Meskan districts, farming activities like production of cash crop and cereal crops and also non-farm activities like working for wage, handcrafts, petty trading, livestock trade, fuel saving stoves and sale of fire wood and charcoal (Mwfed,2010).

figure 3. 1 administrative map of gurage zone.



Source:-MWFEDD, 2010

3.2. Research Design

The study was used cross sectional survey type that employed both qualitative and quantitative design to address the intended study objectives. In order to achieve the objective of the research, considering the nature of the problem and the type of the assessment, this study was employed mixed method approaches.

Adopting mixed methods would have a number of benefits. First, it was helped for triangulation pertaining to a situation where researchers seek convergence, corroboration, correspondence of results from quantitative and qualitative methods to increase validity of constructs and inquiry results. Secondly, it was helped the researchers seek elaboration, enhancement, illustration, clarification of the results from one method with the results from the other method. Third, would support to the discovery of paradox and contradiction, new interpretations, the recasting of questions or results from one method with questions or results from the other method. Finally, it was help to increase the scope of inquiry to extend the breadth and range of inquiry by using different methods for different inquiry components.

3.3. Source and Types of Data

Both qualitative and quantitative data were collected from secondary and primary sources. Secondary data relevant to this study were collected from gurage zone peace and security office and other relevant organizations. Primary data were elicited from the respondents using formal and informal survey. Structured questionnaire was developed to collect the necessary primary

data in which quantitative data are gathered from the sample respondents. The questionnaire was included the information on household demographic characteristics, socioeconomic and institutional related information. On the other hand qualitative data type was conducted through focus group discussion and informal discussions with adiministrators and personal observations. In addition, secondary data was collected from available reports and records of the internal displacement monitoring center and gurage zone peace and security offices of the study area.

3.4. Target Population

The target population for this study was carry out Internally displaced household who live in Meskan and Mareko district and host community is my target Population and it defined the characteristics of the population are displeased by the cause of border line of nine(9) district based crises between to Meskan and Mareko people. By the case of this issue what happen to the economic performance of the household in the area and capture their impact is targeted to the study in this area.

3.5. Data Collection Techniques

A multi-stage sampling technique was adopted to generate the required primary data. First treatment group was selected purposively in study area. Next households were stratified as displeased household as treated group and not displeased household as comparison group in the selected area. Finally, probability proportional to the size was employed in the methods of sample size determination of probability score matching using power calculation. Then after, a structured household questionnaire was administered to number of sample households of displaced and not displeased households in study area. In doing so, training was given to enumerators about the questionnaire and follow up was made to ensure that the process of data collection was suave.

The survey questionnaire was pre-tested before full scale data collection in order to clarify issues in the questionnaire if any. The survey questionnaire was designed to elicit information from a variety of topics including on all of household demographic and economic characteristics of the respondents at the time of the survey as well as phenomena of the internally displaced using recall methods. Respondents was asked to recall information on easily remember household characteristics.

3.6. Sample Size Determination

Determining the sample size is very important issue because sample that is too large may be waste time, resources and money while sample too small may lead to inaccurate results, so determining the sample size is the key step on the overall economical and statistical process. An appropriate sample size is means of gaining high precision, accuracy and confidence with minimum cost.

Sample size is very essential methods to simplify the proportion of sample to generalize the population using the methods of power calculation

$$Power = \mathrm{P}\ (Z > \frac{[Z_{1-\alpha} SE_0 + \mu_0 - \mu_1]}{SE}) = 0.87$$

Where μ_0 =mean difference under null hyphotesis

μ_1 = mean difference under alternative hyphotesis, difference between displaced and control group

$Z_{1-\alpha}$ = the value at which we reject null hyphotesis

SE_0 = standard error under null hyphotesis.

SE = standard error under Alternative hyphotesis.

$$n = \frac{(Z_{1-\beta} + Z_{1-\alpha})^2 [(R+1) - P_2 (R^2 + 1)]}{P_2 (1-R)^2} = 613$$

Where n=sample size

P_1 = Proportion of displaced group

P_2 = Proportion of control group

R= risk ratio or relative risk (P_1 / P_2)

A multi-stage random sampling procedure was used to select potential respondents. The district was purposefully selected, and then camp and town where integration had been introduced were selected. During the time of the survey, two Guraghe Zone district were selected; i.e. Meskan and Mareko. Of these, two district were intentionally selected based on have their similar characteristics and both district are internally displaced. The two district had 29000 and 16000 registered displaced population respectively. From the two district 220 respondents was selected, 137 from Meskan and 83 from Mareko based on number of displaced household and also 393 comparison group was selected from settled(not displaced household) community. This exercise was result in a total sample size of 613 household comprising 220 treated and 393 comparison group in Gurage Zone Meskan and Mareko district (see in appendix-9)

3.7. Methods of Data Analysis

After collected the data, it is necessary to analyze them. Data analysing is the critical study by which we extract information from collecting data. It was designed to produce us with strategy for investigating and specific questions. It provides us with process for investigating questions. It provides us with process for determining the structure of the data that shall doing direct us towards proper inference procedure. Data has to being analyzed with reference to the purpose objective of the study and it is possible bearing in scientific discoveries and analyze is doing with reference to the research problem at hand or the hypothesis. Data analysis involves for many steps like categorization, coding, statistically adjusting the data and tabulation. After collected the data it was edited, cleaned and summarized the appropriate data then the available data were transformed into reliable useful information. Finally analyzed these data through employed both descriptive and empirical analysis by using STATA, R software and Excel.

3.7.1. Descriptive Analysis

Descriptive statistics such as mean, standard deviation, percentages, graphs and cross tabulations were used in analyzing the data.

3.7.2. Propensity Score Matching Method (PSM)

Propensity score matching method (PSM) with Logit model was used to address the objectives impact of internal displacement on household economic performance. One of the critical problems in non-experimental methods is the presence of selection bias which could arise mainly from non-random displacement phenomenon and the non-random selection of participant households that makes evaluation problematic (Heckman *et al.*, 1998).

Bernard et al. (2010), there are three potential source of bias. The first one is that participant households may significantly differ from nonparticipants in community as well as household level due to observable characteristics((such as geographic remoteness, or a household's physical and human capital stock) that may have a direct effect on outcome of interest. Secondly, the difference arises due to unobservable community level characteristic. Thirdly, externalities (spillover effect) exerted by displacement on nonparticipants. as a result of the above problems, differences between participants and non-participants may, either totally or partially, reflect initial differences between the two groups rather than the effects of the problem in the household economic performance.

PSM controls for the households' observable characteristics by comparing the outcomes of displeced household with those of matched not displeced household, based on similarity in observed characteristics which minimizes the first bias. If not feasible to control for these characteristics, PSM estimation become biased. Having control households from the same communities as program beneficiaries helps to reduce the risks of such bias. However, removing unobservable characteristic remains the main problem of this method. In order to achieve objective, PSM non-experimental method was employed to know the impact of internal displacement on household economic performance. It is chosen among other non experimental methods because it does not require baseline data, the treatment assignment is not random and considered as second-best alternative to experimental design in minimizing selection biases mentioned above (Baker, 2000).

Ravallion (2005), argues contamination of the control group can be hard to avoid due to the responses of markets and governments. For instance, Bernard et al. (2010), minimize the effect of spillover effect on comparison group by comparing cooperative members to similar households located in other kebeles where there are no cooperatives. Nevertheless, as argued by Heckman et al. (1998), treatment and comparison households should operate in the same markets and should have come from similar agro-ecology (from sufficiently close locations) and socioeconomic conditions in order to ensure the validity of PSM method.

Caliendo and Kopeinig (2005), the implementation of PSM involves five steps. These are: PSM estimation; choosing matching algorithm, checking for overlap (common support); matching quality (effect) estimation and sensitivity analysis. In order to achieve the objectives, PSM non-experimental method was employed to know the impact of internal displacement on different outcome variables. It is chosen among other non-experimental methods because it

does not require baseline data, the treatment assignment is not random and considered as second-best alternative to experimental design in minimizing selection biases (Baker, 2000).

Mathematical Specifications of PSM Method

The effect of household's internally displesed in the phenomena on a given outcome(Y)is specified as:

$Ti = Yi(Di = 1) - Yi(Di = 0)$…………………………………………………………………….... (1)

Where *Ti* is treatment effect (effect due to internal displecement in study area), Yi is the outcome on household Di is whether household *i* has got the treatment or not (i.e., whether a household displeced or not).

Nonetheless, since Yi (Di =1) and Yi (Di = 0) cannot be observed for the same household simultaneously, estimating individual treatment effect *Ti* is impossible and one has to shift to estimating the average treatment effects of the population than the individual one. The most commonly used average treatment effect estimation is the 'average treatment effect on the treated (*TATT)* which is specified as:

$TATT = E(T D = 1) = E[Y(1) D = 1] - E[Y(0) D = 1]$………………………………………… (2)

Since the counterfactual mean for those being treated, $E[Y(0) D = 1]$ is not observed, there is a need to choose a proper substitute for it to estimate ATT. Though it might be thought that using the mean outcome of the untreated individuals$[Y(0) D = 0]$ as a substitute to the counterfactual mean for those being treated, $E[Y(0) D = 1]$ is possible, it is not a good idea especially in non-experimental studies. This is because it is likely that components which determine the treatment decision also determine the outcome variable of interest.

In our variables internal displecement affect household's economic performance. Therefore, theout comes of individuals from treatment and comparison group would differ even in the absence of treatment leading to a self-selection bias. However, by rearranging and subtracting $E[Y(0) D = 0]$ from both sides of equation 2, ATT can be specified as:

$E[Y(1) D = 1] - E[Y(0) | D = 0] = TATT + E[Y(0) D = 1] - E[Y(0) D = 0]$ ……………………. (3)

In equation 3 both terms in the left hand side are observables and ATT can be identified if no self-selection bias. That is, if and only if $E[Y(0) D = 1] - E[Y(0) D = 0] = 0$. However, this condition can be ensured only in a randomized experiments (i.e., when there is no selfselection

bias). Therefore, some identified assumptions must be introduced for none experimental studies to solve the selection problem. Basically there are two strong assumptions to solve the selection problem. These are: Conditional independence assumption and common support condition.

Conditional Independence Assumption (CIA): The CIA is given as

$Y0, Y1 \perp D / X, \forall X$ …………………………………………………………………………………………… (4)

Where $\perp$ indicates independence

X = is asset of observable characteristics

$Y0$ = not displaced household and

$Y1$ = displeced household

Given a set of observable covariates (X) which are not affected by treatment (in our case,internaly displeced person), potential outcomes (household economic performance) are independent of treatment assignment (independent of how the households were selected in internally displesed).

The implication of CIA assumption is that the selection is solely based on observable characteristics *(X)* and variables that influence treatment assignment (internaly displeced household) and potential outcomes (household economic perforance) are simultaneously observed (Bryson *et al*., 2002; Caliendo and Kopeinig, 2005). Hence, after adjusting for observable differences, the mean of the potential outcome is similar for $D = 1$ and $D = 0$.

Therefore, $E(Y0 / D = 1, X) = E(Y0 / D = 0, X)$.

Imposing a common support condition ensures that any combination of characteristics observed in the treatment group can also be observed among the control group (Bryson et al., 2002). The detail of this assumption is presented latter because the common support condition is one of the five steps of the implementation of PSM.

Based on the above two assumptions, the PSM estimator of ATT can be written as: $TATT = E[Y1 - Y0 / D = 0, P(x)] = E[Y1/ D = 1, P(x)] - E(Y0 / D = 0, P(x)$

Where $P(x)$ is the propensity score computed on the covariates X. The above equation shows that the PSM estimator is the mean difference in outcomes over the common support, appropriately weighted by the propensity score distribution of participants.

Estimating propensity score using binary response model (Logit model)

A dependent variable, Y, is a binary variable taking the value 1 indicating displaced. Since Y is binary the error term in the model also binary. The independent variables (sex, age, marital status, price, family size, education level, housing and infrastructure, land size and is distance to conflict zone and spectre to conflict condition of the variables) are used to measure probability of the variable.

Assessing the impact of an intervention requires making an inference about the outcomes that was have been observed and they had not observed (counterfactual). Here an ideal comparison group from the study was pick. The comparison group is matched to the treated group on the basis of a set of observed characteristics or using the predicted probability of participation given observed characteristics (propensity score). A good comparison comes from the same economic environment as the treatment group and administered using the same questionnaire.

Logit model

$$L_i = \ln(P_i 1 - P_i) = \beta_1 + \beta_2 X_i + \mu_i$$

Where $L_i = \ln(1)$ if a displaced

$L_i = \ln(0)$ If a not-displaced

$P_i = 1$, If a displeased $P_i = 0$, if a not displeased Xi= independent variable (sex, age, marital status, education level, family size, housing and infrastructure, land size spectre, distance to conflict area)

β_i = Coefficients

μ_i = error term

Rosenbaum and Rubin (1983) revealed that matching can be performed conditioning only on P(X) rather than on X, where P(X) = Prob (D=1|X) is the probability of participating in the program conditional on X. According to these authors, if outcomes without the intervention

are independent of participation given X, then they are also independent of participation given P(X) which reduces a multidimensional matching problem to a single dimensional problem. Estimating the propensity score involves decision on two choices; what model to be used for the estimation and what variables should be included in this model.

Regarding the decision of choosing the type of model to be used, for the binary treatment case, where we estimate the probability of displaced and not displaced household, both logit and probit models often yield similar results. Therefore, it is not a critical problem. However, due to the complexity of estimation procedure of probit model than the logit model, logit is widely used (Caliendo and Kopeinig, 2005).

To capture this advantage, the logit model are used for estimating the propensity score in this study. Regarding the choice of what variables should be included in the model, a matching strategy should be built on the conditional independence assumption (CIA) that requires the outcome variables must be independent of treatment conditional on the propensity score.

Therefore, implementing matching is based on choosing a set of variables X covariates) that reasonably satisfy this condition (Caliendo and Kopeinig 2005). Basically, economic theories, better knowledge of previous researches and information on institutional settings are important guides to select appropriate covariates (Sianesi, 2004; Smith and Todd, 2005).

Gujarati (2004), in estimating the logit model, the dependent variable is displaced which takes a value of 1 if the household is displaced and 0 otherwise. The logit model is mathematically formulated as follows:

$$P_i = \frac{e^{zi}}{1+e^{Zi}} \quad \text{……..……..} \quad (5)$$

Where, Pi is the probability of displaced person.

$$Z_i = \beta_0 + \sum \beta_i X_i + U_i \quad \text{……..} \quad (6)$$

Where, *i*=1,2,3,---,n

$$1 - Pi = \frac{1}{1+e^{Zi}} \quad \text{……..} \quad (7)$$

β_0 =intercept

β_1 =regression coefficients to be estimated

ui=a disturbance term,and

xi =pre-intervention characteristics

Then the odds ratio can be written as:

$$\frac{P_i}{1+P_i} = \frac{1+e^{Z_i}}{1+e^{-Zi}} = e^{Zi} \quad \text{………………………………………………………………} \quad (8)$$

The left hand side of equation (8), is simply the odds ratio in favour of internal displaced household. It is the ratio of the probability that the household would displeced to the probability that he/she would not displeced. Finally, by taking the natural log of equation (8) the log of odds ratio can be written as:

$$L_i = Ln(\frac{P_i}{1-p_i}) = Ln(e^{\beta_0 + \sum_{j=1}^{n} \beta_j X_i}) \quad \text{……...……………………………………} \ (9)$$

Where, Li is log of the odds ratio in favour internaly displeced household

Choice of Matching Algorithm

Estimation of the propensity score per se is not enough to estimate the ATT of interest. This is due to the fact that propensity score is a continuous variable and the probability of observing two units with exactly the same propensity score is, in principle, zero. Various matching algorithms have been proposed in the literature to overcome this problem. The methods differ from each other with respect to the way they select the control units that are matched to the treated, and with respect to the weights they attribute to the selected controls when estimating the counterfactual outcome of the treated. However, they all provide consistent estimates of the ATT under the CIA and the overlap condition (Caliendo and Kopeinig, 2008). Below, only the most commonly applied matching estimators are described.

Nearest Neighbour Matching (NNM): This is the most straight forward matching estimator. The individual from the control group is chosen as a matching partner for a participant individual that is closest in terms of propensity score (Caliendo and Kopeinig, 2005). NNM can be done with or without replacement. In the case of with replacement, an untreated individual can serve more than once as a match, whereas it is considered only once in the case of without replacement. NNM with replacement increases the average quality of

matching and decreases precision of estimation while the reverse is true in the case of NN without replacement (Caliendo and Kopeinig, 2005). Nearest neighbour with replacement is preferred to without when there are big differences between treated and untreated groups to reduce the risk of bad matching.

Caliper and radius matching: used to overcome the drawbacks of NN matching risk of bad matches when the closest neighbour is far away. Caliper matching imposes a tolerance level on the maximum propensity score distance (caliper) so that bad matches are avoided and hence the matching quality rises. In caliper matching individual from the comparison group is chosen as a matching partner for a treated individual that lies within the caliper and is closest in terms of propensity score (Caliendo and Kopeinig, 2005).

Radius matching:is suggested by Dehejia and Wahba (2002) as an alternative to solve the drawback of caliper matching. In radius matching, the principle is to use not only the nearest neighbor within each caliper but all of the comparison members within the caliper. The advantage of this method is that it uses only as many comparison units as available within the caliper and therefore allows for usage of extra units when good matches are not available and avoid the risk of bad matching.

Kernel and local linear matching: kernel matching (KM) and local linear matching (LLM) are non-parametric matching estimators that use weighted averages of all individuals in the control group to construct the counterfactual outcome and have the potential of overcoming the problems of only a few observations from the comparison group are used to construct the counterfactual outcome of a treated individual that other estimator have in common (Caliendo and Kopeinig, 2005). These methods use more information and hence advantageous in lowering variance. However, they also have a drawback of the probability of using observations having bad match which leads to the importance of imposing the common support condition (Caliendo and Kopeinig, 2005).

Weighting on propensity score: Given several matching estimators algorithm, which approach is selected is the basic question. According to Caliendo and Kopeinig (2005) there is no the best fit algorithm fit to all cases. Rather the choice depends on the data in hand.

Region of common support and overlap condition: Imposing of common support is the third important step in PSM because average treatment effect on treated and on population is only defined in the common support region (Caliendo and Kopeinig, 2005).

The common support region is the area within the minimum and maximum propensity scores of treated and comparison groups, respectively and it is done by cutting off those observations whose propensity scores are smaller than the minimum and greater than the maximum of treated and comparison groups, respectively (Caliendo and Kopeinig, 2005).

D. Testing the matching quality (effect analysis): The fourth important step in PSM is checking for matching quality whether the matching procedure can balance the distribution of different variables or not since our conditioning is on propensity score rather than on all variables in both treated and comparison groups (Caliendo and Kopeinig, 2005).

While there are different procedures available to check, the basic aim of all of them is to compare before and after matching and if there still exists any difference after conditioning on propensity score. If the differences exist, there is an indication of incomplete (unsuccessful) matching and suggests remedial for actions (Caliendo and Kopeinig, 2005). There are several indicators to check for matching quality. There are standardized bias, t-Test, joint significance, stratification test and pseudo-R2.

Testing the matching quality

Since we do not condition on all covariates but on the propensity score, it has to be checked if the matching procedure is able to balance the distribution of the relevant variables in both the control and treatment group. The main purpose of the propensity score matching is not to perfectly predict selection into treatment but to balance all covariates. While differences in covariates are expected before matching, these should be avoided after matching. The primary purpose of the PSM is that it serves as a balancing method for covariates between the two groups. Consequently, the idea behind balancing tests is to check whether the propensity score is adequately balanced (Dehejia and Wahba, 2002).

In other words, a balancing test seeks to examine if at each value of the propensity score, a given characteristic has the same distribution for the treated and comparison groups. The basic idea of all approaches is to compare the situation before and after matching and check if there remain any differences after conditioning on the propensity score (Caliendo and Kopeinig, 2008).

Rosenbaum and Rubin (1983), emphasized that the crucial issue is to ensure whether the balancing condition is satisfied or not because it reduces the influence of confounding variables. There are different approaches in applying the method of covariate balancing (i.e.,

the equality of the means on the scores and all the covariates) between treated and non-treated individuals. Among different procedures the most commonly applied ones are described below.

Standard bias: - One suitable indicator to assess the distance in marginal distributions of the X variables is the standardized bias (Sb) suggested by Rosenbaum and Rubin (1985). It is used to quantify the bias between treated and control groups. For each variable and propensity score, the standardized bias is computed before and after matching as:

$$SB(X) = 100.\frac{\overline{X}_1 - \overline{X}_0}{\sqrt{0.5(V_1(X) + V_0(X)}} \text{ ……………………………………………………… (10)}$$

Where $\overline{X}_1$ and $\overline{X}_0$ are the sample means for the treatment and control groups,

And $(V_1(X), V_0(X))$ are the corresponding variance (Caliendo and Kopeining, 2008). The bias reduction (BR) can be computed as:

$$BR = 100(\frac{1 - B(X)_{AFTER}}{B(X)_{BEFORE}} \text{ …………………………………………………………… (11)}$$

One possible problem with the SB approach is that one does not have a clear indication for the success of the matching procedure.

T_test

A two-sample t-test to check if there are significant differences in covariate means for both groups (Rosenbaum and Rubin, 1985). Before matching differences are expected, but after matching the covariates should be balanced in both groups and hence no significant differences should be found. The t-test might be preferred if the evaluator is concerned with the statistical significance of the results. The shortcoming here is that the bias reduction before and after matching is not clearly visible.

Joint significant test

Sianesi (2004), suggests re-estimating the propensity score on the matched sample, i.e. only on participants and matched nonparticipants, and comparing the pseudo-R2s before and after matching. The pseudo-R2 indicates how well the regressors X explain the participation probability. After matching there should be no systematic differences in the distribution of covariates between both groups and therefore the pseudo-R2 should be fairly low.

Furthermore, one can also perform a likelihood ratio test on the joint significance of all covariates in the probit or logit model. The test should not be rejected before, and should be rejected after, matching.

Estimation of Standard error

Testing the statistical significance of treatment effects and computing their standard errors is not a straightforward thing to do. The problem is that the estimated variance of the treatment effect should also include the variance due to the estimation of the propensity score, the imputation of the common support, and possibly also the order in which treated individuals are matched. These estimation steps add variation beyond the normal sampling variation (Heckman *et al.,* 1998).

Bootstrapping: Standard errors in psmatch2 are invalid, since they do not take into account the estimation uncertainty involved in the probit/logit regressions (pscore). One way to deal with this problem is to use bootstrapping as suggested by Lechner (2002). This method is a popular way to estimate standard errors in case analytical estimates are biased or unavailable. Recently it has been widely applied in most of economic literatures in impact estimation procedures. Each bootstrap draw includes the re-estimation of the results, including the first steps of the estimation (propensity score, common support).

Bootstrap standard errors attempted to incorporate all sources of error that could influence the estimates. Abadie and Imbens (2006), argue that using the bootstrap after nearest neighbour matching, until recently a common approach to estimating standard errors in evaluation studies, does not yield valid estimates. Spillover effect: **t**he indirect impact of internal displacement on compression household (not displaced household) economic performance in Meskan and Mareko district.

Sensitivity analysis

Recently checking the sensitivity of the estimated results becomes an increasingly important topic in the applied evaluation literatures (Caliendo and Kopeining, 2008). Matching method is based on the conditional independence or unconfoundedness assumption, which states that evaluator, should observe all variables simultaneously influencing the participation decision and outcome variables. This assumption is intrinsically non-testable because the data are uninformative about the distribution of the untreated outcome for treated units and vice versal (Becker and Caliendo, 2007).

Rosenbaum (2002), proposes using Rosenbaum bounding approach in order to check the sensitivity of the estimated ATT with respect to deviation from the CIA. The basic question to be answered here is whether inference about treatment effects may be altered by unobserved factors. In other words, one wants to determine how strongly an unmeasured variable must influence the selection process in order to undermine the implications of matching analysis. The bounding approach does not test the unconfoundedness assumption itself, because this would amount to test that there are no (unobserved) variables that influence the selection into treatment. Rosenbaum bounds provide evidence on the degree to which any significance results hinge on this untestable assumption. If the results turn out to be sensitive the evaluator might have to think about the validity of his identifying assumption and consider other estimation strategies.

As noted above it is not possible to estimate the magnitude of selection bias using observational data, instead the sensitivity analysis using the bounding approach that involves calculating upper and lower bounds using the Wilcoxon signed rank test. This rank tests the null hypothesis of no-treatment effect for different hypothesized values of unobserved selection bias.

The central assumption of the analysis is that treatment assignment is not unconfounded given the set of covariates *X*. In addition, it is assumed that the CIA holds given *X* and an unobserved binary variable *u* : In other words the probability of displaced household *F(·)* needs to be complemented by a vector *u* containing all unobservable variables and their effects on the probability of participation captured by γ .

$$P(X, U) = \Pr(D=1/X, U) = F(X\beta + U\gamma) = e^{X\beta+U\gamma} \text{ ……………………………………… (12)}$$

Where γ is the effect of *u* on the probability of displaced household in displacement. Assuming that *F* follows logistic distribution, the odds ratio of two matched individuals (let say m and n), who are identical in observable characteristics, receiving the treatment written as:

$$\frac{P(X,u_m)}{P(X.u_n)} X \frac{1-P(X,u_n)}{1-P(X,u_m)} = \frac{e^{\beta_m X_m + \gamma_n X_n}}{e^{\beta_n X_n + \gamma_n X_n}} = e^{[\gamma(u_n - U_m)} \text{ …………………………………... (13)}$$

Equation (13) states that two units with the same ***x*** differ in their odds of receiving the treatment by a factor that involves the parameter γ and the difference in their unobserved covariates ***u***. As long as there is no difference in ***u*** between the two individuals or if the unobserved covariates have no influence on the probability of displaced(γ =0). This happens if the probability of displaced was only be determined by the ***x*** vector and the selection process is

random. γ >0 implies that two individuals with the same observed characteristics have different probabilities of displaced in the phenomenon due unobserved selection bias. In our sensitivity analysis, we examined how strong the influence of γ on the displacement phenomenon needs in order to attenuate the impact of internal displacement on household economic performance.

Both matched individuals have the same probability to displace only if e^{γ} =1 provided that they are identical in *X*. Consequently there will be no selection bias on unobservable covariates. If e^{γ} =2, one of the matched individuals may be twice as likely to displaced as the other agent (Rosenbaum, 2002). If e^{γ} is close to one and changes the inference about the treatment effect, the impact of displaced household on potential outcomes, the estimated effect is said to be sensitive to hidden bias. In contrast, insensitive treatment effects would be obtained if a large value e^{γ} does not alter the inference about treatment effects. In this sense, e^{γ} can be interpreted as a measure of the degree of departure from a study that is free of unobservable selection bias (Rosenbaum, 2002). Several values of e^{γ} bounds are calculated on the significance level, and hence, the null hypothesis of no effect of internal displacement on potential outcomes, is then tested.

Eventually, using predicted probabilities of displaced household in displacement phenomenon match pairs are constructed using alternative methods of matching estimators. Then the impact estimation is the difference between simple mean of outcome variable of interest for displaced and not displaced household. The difference involvement in displacement phenomenon between treatment and matched control households is then computed. The ATT is obtained by averaging these differences in economic performance outcomes (Y_i) across the *k* matched pairs of households as follows:

$$ATT = \frac{1}{k}\sum_{i=1}^{k}[Y_i^{i\varepsilon D=1} - Y_i^{i\varepsilon D=0}] \quad \text{..... (14)}$$

A positive (negative) value of ATT suggests that households who have displaced by the displacement phenomenon have increase (decrease) of outcome variable Y_i not displaced.

3.8. The Dependent and Independent Variable of Study

In the estimation of the propensity score, we are not interested in the effects of covariates on the propensity score because the purpose of study is to assess the impact of internal displacement on outcome variables. However, the choice of covariates to be included in the

first step (propensity score estimation) is an issue. (Heckman, 1979) Argue that omitting important variables can increase the bias in the resulting estimation. Hence, before the displacement phenomena, characteristics which bring variation in outcomes of interest among displeased and not displeased to be used. In other word, variables which are not affected by being displeased and not displeased those explanatory variables which are fixed throughout are assumed to be used as explanatory variables.

There are no general rules for which variables to include in the model (Anderson *et al.,* 2009). However, the evaluator is guided by economic theory and empirical studies to know which observables (explanatory variables) affect the outcomes of interest (Bryson *et al.,* 2002). Dependent variable (response variable):-is unlike independent variables. It is a variable that depends on explanatory variable. Independent variables (predictor variables):-are the variables that stand alone and not depended by any other variables.

Our variable of interest measures household economic performance Thus, we observe that there are substantial differences in income, consumption, wages, access to health care, access to education, unemployment of household, production of household and other factors among displaced people, depending on whether they were moved by displacement phenomena, although these are raw differences and take into account other socio-demographic features. For instance, it could be that household who were moved by displacement phenomena come from local area, where levels of education are comparatively lower, which could explain part of the observed difference. Thus, in what follows, we attempt to net out the relationship between internal displacement and economic performance of household from differences in socio-demographic characteristics. A variables that have relationship to economic performance are included in our analysis, those are age, sex, education level, income, consumption, wage, access to health care, access to education, land size, housing and infrastructure, unemployment and price of basic needs.

Table 3. 1 Types, definition and measurement of variable

Variable	Type and defintion	Measurment
Dependent variable		
Treatment	Dummy, displaced and not displaced	1 if displaced, 0 otherwise
Covariance		
AGEHH	Continious, Age of household head	in year
SEXHH	Dummy, Sex of household	1 if male, o otherwise
MAR- SHH	Dummy, martial status of respondant	1 if married, 0 otherwise
		1 if divorced, 0 otherwise
		1 if widowed, 0 otherwise
EDUCLEVELHH	Dummy,HH education level	1 if primary, 0 otherwise
		1 if secondary, 0 otherwise
		1 if diploma and above, 0 otherwise
POBGS	Dummy, price of basic needs	1 if yes, 0 otherwise
HISHH	Dummy, housing and infrastracture	1 if improve, 0 otherwise
		1 if no-change, 0 otherwise
TOTFAMS	Continious, total family size	number of family in given household
TOTALHHLS	Continious, size of owened land	in hectare
Spectre	Dummy, HH condition of confilect	1 if yas, 0 otherwise
DTCZ	Continious distance to conflict area	in km

Source own computation, 2021

3.9. Choice, Measurement and Indicators of Outcome Variable

Household Annual Income:- is a continuous variable and it is one of the outcome variables as a result of the household's displaced in displacement phenomena which is measured in birr. Household annual income is calculated as the total income of a year by different function.

Household Production: - is a categorical variable and also the other outcome variables which is measured in qualitatively in the feature of production of household in the period of displacement phenomena.

Household production is a production of goods and services by the members of the household, for their own consumption, using their own capital and their own unpaid labour. Goods and services produced by the households for their own use include accumulation, meals, clean cloth, and child care. It is varies to the production of host and displaced household in study area, the displacement situation change in production of household, someone increase ,others decrease and also others are remain the same to that of the phenomenon.

Household consumption: - is a continuous variable and it also can be negative expected effect on economic performance in case of internal displacement which is measured in birr. Household consumption expenditure covers all purchase made by resident household (home or

aboard) to meet there every day needs: food clothing, housing service (rent), energy, transport, durable goods (notably care), spending on health, on leisure and on miscellaneous service.

Household unemployment: - is a categorical variable and other outcome variable household classified as unemployed if they do not have job, have actively looked for work in the prior months or years ago. In study area (Meskan and Mareko District) several household have to unemployed and also the question to ask unemployment of household to the respondent to get answer most of them are increase and some of them are decrease.

Household wage: - is a continuous variable and other outcome variable which is measured in Ethiopian birr. It is the amount a worker receives in return for their services on monthly basis in a survey of study area.

Access to Education: - is a categorical variables and outcome variable which is measured qualitatively it includes on schedule enrolment and propagation at an appropriate age, regular attendance, learning consistence with national achievement norms, a learning environment that is safe enough to allow learning to take place and opportunity to learn that are equitably distributed this situation in study area are questioned to the respondent household.

Access to health care: - is a categorical variables and the last outcome variables many measurement strategies have been used to analyses access to health care these include percentage of population with and without health insurance, the percentage of the population who were unable to get or delayed in getting needed medical care or prescription medicines, a situation are questioned for respondent.

Before proceeding to estimate the data using logit model, different tests were undertaken. One of the tests is checking the existence of multicollinearity between explanatory variables. The presence of multicollinearity among the variables seriously affects the parameter estimates of any regression model. The Variance Inflation Factor (VIF) technique was employed to detect the problem of multicollinearity for the continuous variables (Gujarati, 2004). VIF can be defined as;

$$Vif_{Xi} = \frac{1}{1 - R^2{}_i}$$

Where is the squared multiple correlation coefficient between and other explanatory variables. The larger the value of VIF, the more troublesome it is. As a rule of thumb if a VIF of a variable exceeeds10, the variable is said to be highly collinear.

Similarly, for dummy variables contingency coefficients test were employed using the following formula

$$C = \sqrt{\frac{\chi^2}{n + \chi^2}}$$

Where C is contingency coefficient, is the chi-square value and n=total sample size. For dummy variables if the value of contingency coefficients is greater than 0.75 the variable is said to be collinear.

Heteroscedasticity exists when the variances of all observations are not the same, leading to consistent but inefficient parameter estimates. More importantly, the biases in estimated standard error may lead to invalid inferences (White, 1980). Heteroscedasticity was detected by using Breusch- Pagen test (hettest) in STATA version 14, Excel and R 4.0.0 2020 software using the propensity scores matching algorithm (psmatch2) developed by Leuven and Sianesi (2003).

4. RESULT AND DISCUSSION

This section consists of two sub-sections. The first one is description of sample households' characteristics. The second sub-section is estimation results which include propensity score matching, treatment effect, spillover effect and sensitivity analysis results.

4.1. Description of Sample Household Characteristics

4.1.1. Socioeconomic characteristics of sample household

Under this sub-section, demographic, socioeconomic, institutional and environmental features of the households in Meskan and Mareko district are discussed.

The summary of socioeconomic features of the household along with the mean difference test (t-test) of continuous variables is presented in Table-4.1 below. As it can be observed from Table 4.1, the mean and standard deviation, values of the variables are computed for the entire sample and for the groups, displaced and host community. After estimating the mean values, the significance of mean difference test was undertaken by two-group mean comparison test for the continuous variables. The distribution of the categorical variables related with displaced and host community is given on Table-4.2 below. The proportion of the respondents falling into these categories are given and the difference of the proportion across displaced and host community was tested by using chi-square test. The detailed discussion of both continuous and categorical variables is presented under different conceptual groups.

4.1.2. Demographic characteristics

Age : was one of the variables used in the analysis of the characteristics of the household in the study area related with displacement phenomenon. The mean age of host community was 51.69 years with minimum and maximum age of 25 and 74 years, respectively, and that of displaced was 49.02 years, with minimum and maximum values of 32 and 74 years, respectively. The descriptive analysis revealed significant difference in age of household heads between displaced and host community. The mean difference age of household head between the displaced and not displaced household was significant at 5%level of significance (Table 4.1). The result indicated that the age of host community was higher as compared to displaced household in study area.

Sex of household head (SEX): Concerning the sex of household head, about 49.91% of the total household heads were male, where as the proportion of the male headed households for displaced and host community were about 60% and 44.27%, respectively and 50.08% of the

total household heads were female, whereas the proportion of the female head 40% and 55.72% households for displaced and host community were about 60% and 44.27% the female (Table 4.2). The chi-square test result on this variable shows that there was significant difference between displaced and host community at 10% significant level.

Family size (Fams): The mean of family size of the total sample households in the study area was about 4.9, with minimum and maximum family size of 0 and 9. In other hand the mean of host community was 4.687023 with minimum and maximum of 0 and 9, although the mean of displaced household was 5.281818 with maximum and minimum family size of 1 and 9(Table 4.1). The descriptive analysis implies that there was significant difference in the family size of households between displaced and host community in study area at 5% significance level.

4.1.3. Social and Human Capital

Education level (EDUCL): The overall proportion years of education of the total households in the study area was primary education of schooling, whereas the not displaced and displaced household had a maximum and minimum education level of illiteracy and secondary schooling, respectively. There was not significant difference in the education level between displaced and not displaced household heads in study area. The chi-square value indicates that, the education level of the displaced and host community are not difference.

4.1.4. Asset holding/Economic characteristics

Access to education (**ACEDUC)**: The proportion of households that have decrease access to education due to displacement phenomenon in study area was about 34.25% for the total sampled households, out of them have decrease access to education for displaced was 81.18% and host community was about 64.12%. The percentage of household that increase access to education was about 22.83% for the total sampled households, 12.72% for displaced and 28.49% for host community respectively, others remain no change. The chi-square value of the proportionality test for this variable indicates that there was significant difference between displaced and host community in study area at 1% significant level.

Access to health care (ACEHLC): The percentage of households that have decrease access to health care due to displacement phenomenon in study area was about 30.99% for the total sampled households, out of them have decrease access to health care for displaced was 67.27% and host community was about 10.68%. The ratio of household that improve access to health care was about 25.44% for the total sampled households, 16.36% for displaced and 30.53% for

host community respectively, others keep on. The Chi-square value indicate that highly significant difference between displaced and host community at 1% significance level.

Housing and infrastructure (HIS): The percentage of households that decay housing and infrastructure due to displacement phenomenon was about 31.15% for the total sampled households out of them have decay housing and infrastructure for displaced was about 72.27% and host community was about 8.14%, where as the proportion of household that improve housing and infrastructure was 28.38% for the total sampled households, 5.9% for displaced and 40.69% for host community others remain no change. The Chi-square value denotes that significant difference between displaced and host community at 1% significance level.

Land size (Lans): This was also used in the analysis of the characteristics of the household in the study area. The result of the descriptive analysis shows that the mean land size calculated for the total sample households in the study area was 1.166395ha, with minimum and maximum land size of 0 and 4 ha, respectively. On the other hand, the mean cultivable land size of the household for host community was found to be 1.102163 ha, with the minimum and maximum cultivable land size of 0 ha and 3 ha, respectively, where as that of the displaced household is 1.281136ha, with minimum and maximum of 0 ha and 4 ha, respectively. The descriptive analysis point to that there was significant difference in the cultivable land size of households between displaced and host community in study area at 5% level of significance. This implies that the displaced household have higher cultivable land size on average when compared to that of host community.

Production level of household (PROD): The proportion of households that decrease production level was about 32.13% for the total sampled households. The share of households that have decrease the level of production for displaced was about 72.27% where as that of host community was about 9.66% and also the proportion of household have increase production level was 40.13% for the total sample. Where about 18.63% for displaced and 52.16% for host community the remains household are no change in production level. The Chi-square value shows that highly significant difference between displaced and host community at 1% significance level.

Price of goods and service:(PROGS) The proportion of households that increase price of goods and service due to displacement phenomenon was about 56.76% for the total sampled households out of total sample household that have increase price of goods and service for displaced was about 65.9% and host community was about 51.65%. The Chi-square value show

that the variables are significant difference between displaced and host community at 10% significance level.

Total annual consumption of the household (LogCN): This was analyzed as characterizing the households in the study area related with the displacement phenomenon. The mean of annual income of the sample households in the study area was Birr 9.041312 with minimum and maximum annual consumption of Birr 2.302585 and 10.90267, respectively. But the mean annual consumption of host community was Birr 10.01499, with minimum and maximum annual consumption of Birr 5.991465 and 10.90267 respectively, where as that of the displaced household was Birr 7.301975,with minimum and maximum annual consumption was Birr 2.302585 and 10.10643 respectively all values are in logarism form. The descriptive analysis revealed that there was significant difference in the annual consumption of households between displaced and host community in study area. The mean difference of the group was significant at 1% significance level. This implies that the consumption of the displaced household was lower as compared to host community in study area.

Total annual income of the household (Logincome): This was analyzed as characterizing the households in the study area related with the displacement phenomenon. The mean of annual income of the sample households in the study area was Birr 9.217451, with minimum and maximum annual income of Birr 2.302585 and 10.71442, respectively. But the mean annual income of host community was Birr 10.1255 with minimum and maximum annual income of Birr 5.991465 and 10.71442 respectively, where as that of the displaced household is Birr 7.595345, with minimum and maximum annual income of Birr 2.302585 and 10.10643 respectively. The descriptive analysis revealed that there was significant difference in the annual income of households between displaced and host community in displacement phenomenon. The mean difference of those was significant at 1% significance level. This denotes that the income of the displaced household was lower as compared to host community.

Total wage of the household (Logwage): This was analyzed as characterizing the households in the study area related with the displacement phenomenon. The mean of wage of the sample households in the study area was Birr 5.608123, with minimum and maximum wage of Birr 2.302585 and 8.160519, respectively. But the mean wage of host community was Birr 6.502989 with minimum and maximum wage of Birr 2.302585 and 8.160519 respectively, where as that of the displaced household is Birr 4.009568 with minimum and maximum wage of Birr 2.302585 and 7.783224 respectively all values are in log form. The descriptive analysis revealed that there was significant difference in wage of households between displaced and

host community in study area. The mean difference of the group was significant at 1% significance level. This implies that the wage of the displaced household was lower as compared to host community host community in study area.

Unemployment level of household (UNEMP): This variable was another significant categorical variable that was analyzed across displaced and host community. For the total sampled households, about 70.47% increase in the level of unemployment, whereas the proportion of those have increase unemployment are 81.81% for displaced and 64.12% for host community. Chi-square test implies that highly significant difference between displaced and host community at 10% significance level.

Table 4. 1 Descriptive statistics of sample households (for continuous variables)

pre-intervention	sample household (N=613)		displaced household(n=220)		notdisplaced household(n=293)		Difference in mean		T_value
Variable	Mean	STD	Mean	STD	Mean	STD	Mean	STE	
Age	50.73083	10.11846	49.0182	9.620167	51.69	10.27481	2.6714	0.8458158	3.1585
Fams	4.900489	2.177173	5.28182	1.843819	4.687	2.318132	-0.595	. 1818876	-3.27
Logincome	9.512035	1.161088	8.21584	0.9603687	10.126	0.6148399	1.9097	0.0661557	28.866
LogCN	9.437023	1.113344	8.21584	0.9603687	10.015	0.5915376	1.7991	0.0650023	27.678
Lans	1.166395	0.7291746	1.28114	0.7760814	1.1022	0.6943204	-0.179	0.0610201	-2.933
Logwage	9.437023	1.113344	8.21584	0.9603687	10.015	0.5915376	1.7991	0.0650023	7.6782

Source own survey result, 2021

Table 4. 2 Descriptive statistics of sample households (for categorical variables)

Variable	category	displaced (n= 220) percent(%)	not displaced (n= 393) percent(%)	Total (N=613) percent(%)	χ^2
SEXHH	Male	132(60%)	174(44.27%)	306(49.91%)	
	Female	88(40%)	219(55.72%)	307(50.08%)	13.9511*
MART-S	single	2(0.9%)	9(2.2%)	11(1.7%)	
	Married	157(71.36%)	267(67.9%)	424(69.16%)	
	Divorced	44(20%)	78(19.84%)	122(19.90?%)	
	Widowd/widower	17(7%)	39(9.92%)	56(9.13%)	2.4846
EDUCL	Illiterate	49(22.27%)	94(23.91%)	143(23.32%)	
	Primary	123(55.9%)	210(53.43%)	333(54.32%)	
	Secondary	41(18.6%)	75(19%)	116(18.92%)	
	Collage and above	7(3%)	14(3.56%)	21(3.42%)	0.3972
PROGS	No	75(34%)	190(48.34%)	265(43.23%)	
	Yes	145(65.9%)	203(51.65%)	348(56.76%)	11.6787*
HIS	decay	159(72.27%)	32(8.14%)	191(31.15%)	
	No change	48(21.8%)	200(50.89%)	248(40.45%)	
	Improve	13(5.9%)	161(40.96%)	174(28.38%)	276.7065***
UNEMP	decrease	9(4%)	41(10.43%)	50(8.15%)	
	No change	31(14%)	100(25.44%)	131(21.37%)	
	Increase	180(81.81%)	252(64.12%)	432(70.47%)	21.7305**
ACEDUC	decrease	139(63.18%)	71(18.06%)	210(34.25%)	
	No change	53(24%)	210(53.43%)	263(42.9%)	
	Increase	28(12.72%)	112(28.49%)	140(22.83%)	127.4703***
ACEHLC	decrease	148(67.27%)	42(10.68%)	190(30.99%)	
	No change	36(16.36%)	231(58.77%)	267(43.55%)	
	Improve	36(16.36%)	120(30.53%)	156(25.44%)	215.0909***
PROD	decrease	159(72.27%)	38(9.66%)	197(32.13%)	
	No change	20(9%)	150(38.13%)	170(27.73%)	
	Increase	41(18.63%)	205(52.16%)	246(40.13%)	254.5123***

Source own survey data, 2021,

4.2. Empirical Result

This section explains the estimation of propensity score, matching methods, common support region, balancing test, spillover effect and eventually sensitivity analysis.

4.2.1. Estimation of Propensity Score

The logistic regression model was used to estimate propensity score matching for displaced and host community. As shown earlier, the dependent variable is binary that indicate households current status have displaced and nondisplaced.

Before proceeding impact estimation Variance Inflation Factor (VIF) was applied to test for the presence of multicollinearity problem among the continuous explanatory variables Moreover, by using contingence coefficients multicollinerty between discrete variables were checked all discrete explanatory variables are greater than critical value. There was no explanatory variable dropped from the estimated model since no serious problem of multicollinearity was detected from the result of VIF shows less than cut off point equals to10. (For detail see in appendix-3)

Table 4. 3 Multicollinearity test for explanatory variables

Variable	VIF	1/Vif(tolerance)
FAMS	1.01	0.985513
AGEHH	1.01	0.996267
LANS	1.01	0.985815
DTCZ	1.29	0.776867

Source own survey, 2021

Similarly, heteroscedasticity was tested by using Breusch-Pagen test. This test resulted in rejection of the existence of heteroscedasticity hypothesis as and there was no need to make the standard error robust.

Table 4. 4 Hetroskedasticity test

breusch-pagan/cook-wisherg test for heteroskedasticity	
chi2(12)	prop>chi2
3.48	0.0621

Source own survey R output

The Results presented in Table 4.5 show the estimated model appears to perform well for the intended matching exercise. The pseudo-R2 value is 0.1020. A low R2 value shows that treatment households do not have much distinct characteristics overall and as such finding a good match between displaced and not-displaced households becomes easier.

Table 4. 5 Logit Result of Displaced Household

Logistic regression					Number of obs = 613
					LR chi2(11) = 81.64
Log likelihood = -237.11394					Prob > chi2 = 0.0000
					Pseudo R2 = 0.1020
treat	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
SEXHH	-0.3459802	0.2191044	-1.58	0.114	[-.7754169 .0834565]
AGEHH	-0.0252171	0.0591336	-0.43	0.67	[-.1411168 .0906826]
MAR-S	-0.1042896	0.1366621	-0.76	0.445	[-.3721424 .1635632]
FAMS	0.134255	0.0419063	3.2	0.001	[.0521201 .2163898]
EDUCL	0.0723466	0.2232871	0.32	0.746	[-.365288 .5099813
PROGS	2.480182	0.5487228	4.52	P<0.000	[1.404705 3.555659
LANS	0.3704526	0.1226061	3.02	0.003	[.1301491 .6107562]
Spectre	-2.160046	0.5489132	-3.94	P<0.000	[-3.235896 -1.084196]
DCTA	0.7782418	0.2116805	3.68	P<0.000	[.3633556 1.193128]
AGEHHSQ	-0.0561071	0.0869942	-0.64	0.519	[-.2266126 .1143985]
EDUCLSQ	-0.0000554	0.0005726	-0.1	0.923	[-.0011777 .001067]
_CONS	-0.4546151	1.536366	-0.3	0.767	[-3.465838 2.556608]

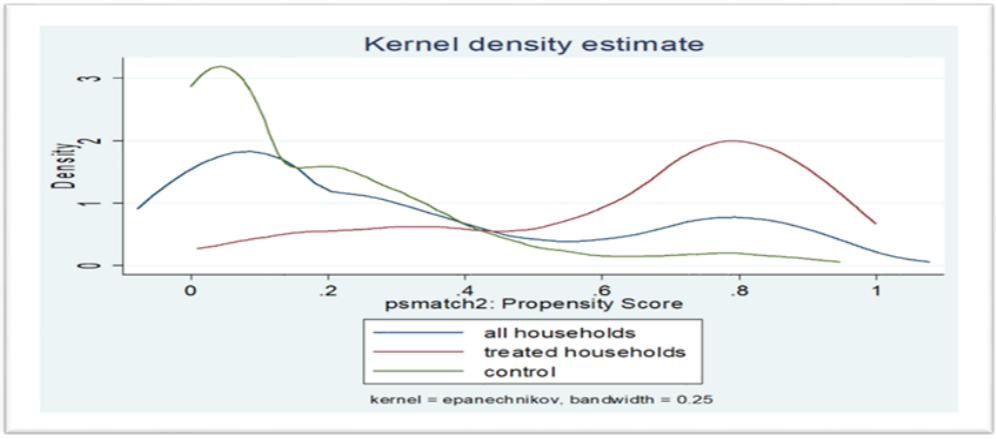
Source own survey result, 2021

Table 4.5, estimated that displaced household is significantly influenced by five explanatory variables. Family size, price of goods and service and land size are significant variables which affect the displaced household behind the displacement phenomenal. Overall, household who have largest family size are negative and significant effect to displaced household behind displacement phenomenon in study area.

Similarly displaced household are often forced to live in substandard camps, collective shelters or informal settlements where overcrowding and lack of sanitation can increase the prevalence of communicable diseases. By contrast the result also demonstrate price of basic needs have significantly affected for displaced household when the situation of displacement can many people who have integrated in a given community or camps this leads to increase the price of basic needs specially food cost and related items.

The result also demonstrate that the displaced household are significantly determine by two basic explanatory variables to displace in the origin of community. Distance to conflict area and spectre for conflict condition are significant variable which determine internally displaced of the household to displacement phenomenon. Households who have live in the conflict area and nearer to border line of Meskan and Mareko district are more likely to be displaced in the displacement phenomenon than those living far from the conflict area. And also household who have spectre to conflict condition (loss and disorder) are more likely to be displaced than those living in secure area. Figure 4.1 below portrays the distribution of the household with respect to the estimated propensity scores. In case of treatment households, most of them are found in partly the middle and partly in the right side of the distribution. On the other hand, most of the control households are partly found in the center and partly in the left side of the distribution.

Figure 4. 1 Kernel density of propensity score distribution



Source own survey result, 2021

4.3. 4. Matching Displaced and Host Community

As stated before, four main tasks should be accomplished before one launches the matching task itself. First, predicted values of propensity scores should be estimated for all households have displaced and not displaced. Second, a common support condition should be imposed on the propensity score distributions of household with and without the treatment. Third, discard observations whose predicted propensity scores fall outside the range of the common support region. And finally sensitivity analysis should be done in order to check the robustness of the estimation (whether the hidden bias affects the estimated ATT or not).

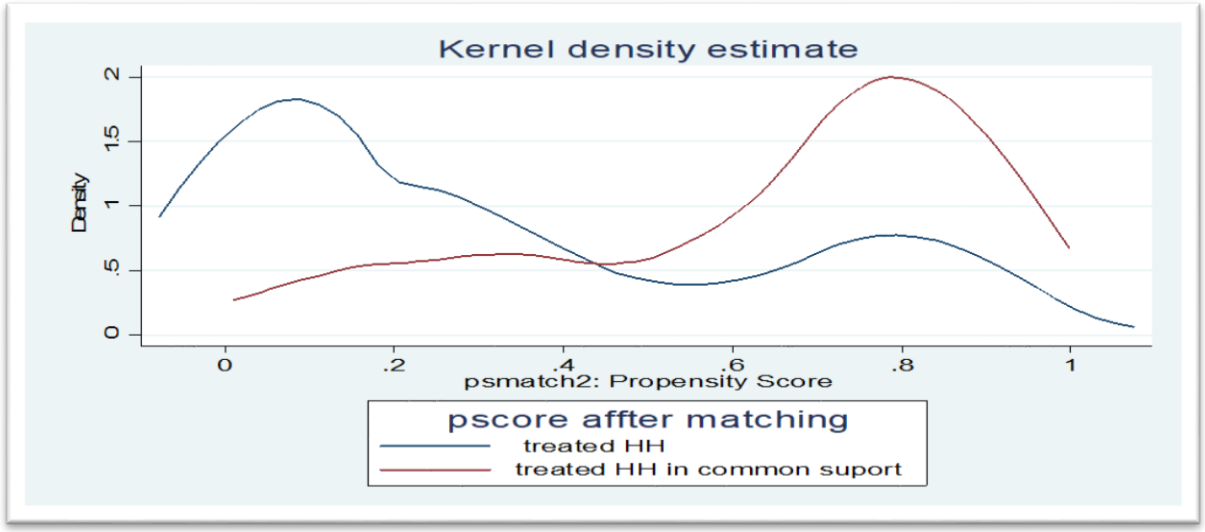
The estimated propensity scores vary between 0.0143184 and 0.9988836(mean = 0.6608355) for displaced households and between 0.000039 and 0.9486169 (mean =0.1954525) for not displaced (control) households. The common support region would then lie between 0.0143184 and 0.9988836 and the balancing property is satisfied to the final number of block is 5. In other words, households whose estimated propensity scores are less than 0.0143184 and larger than .9988836 are not considered for the matching exercise. As a result of this restriction, 51 observation were discarded from the analysis it is good because the study does not drop many respondent from the sample in computing the impact estimator (See table 4.6).

Table 4. 6 Distribution of estimated propensity score

Group	Obs	Mean	Std. Dev.	Min	Max
Total Household	613	0.3624741	0.3209777	0.000039	0.9988836
Displaced Household	220	0.6608355	0.2662538	0.0143184	0.9988836
Notdisplaced Household	393	0.1954525	0.2081238	0.000039	0.9486169

Source own survey result, 2021

Figure 4. 2 Kernel propensity score of displaced household



Source own survey output, 2021

4.3.5. Choice of Matching Algorithm

Alternative matching estimators were tried in matching the treatment and control households in the common support region. The final choice of a matching estimator was guided by different criteria such as equal means test referred to as the balancing test (Dehejia and Wahba, 2012), pseudo-R2 and matched sample size. Specifically, a matching estimator which balances all explanatory variables, the results in insignificant mean differences between the two groups after matching, bears a low R2 value and results in large matched sample size is preferable.

Table 4.7 shows the estimated results of tests of matching quality based on the above mentioned performance criteria. After looking into the results, it has been found that kernel matching with a band width of 0.25 is the best estimator for the data. As such, in what follows estimation results and discussion are the direct outcomes of the kernel matching algorithm based on a band width of 0.25.

Kernel matching associates the outcome of the treated household with the matched outcome that is given by a kernel-weighted average of all control groups for treatment. Since the weighted averages of all internal displacement phenomena in the control group are used to construct the counterfactual outcome, kernel matching has an advantage of lower variance because more information is used (Heckman *et al.*, 1998).

Table 4. 7 performance of different matching estimator

Performing criteria			
Matching Estimator	Balancing test*	pseudo-R^2	Matched sample size
NN (1)	10|12	0.044	572
NN (2)	10|12	0.053	572
NN (3)	9|12	0.046	572
NN (4)	9|12	0.052	572
NN (5)	10|12	0.046	572
Radius calliper			
0.01	11|12	0.058	558
0.25	12|12	0.046	570
0.5	10|12	0.139	570
Kernel			
Band with (0.1)	10|12	0.046	571
Band with (0.25)	12|12	0.045	571
Band with (0.5)	9|12	0.069	571

*Number of explanatory variables with no statistically significant mean differences between the matched groups of displaced and not-displaced households.

4.3.6. Testing the Balance of Propensity Score and Covariate

After choosing the best performing matching algorithm the next task is to check the balancing of propensity score and covariate using different procedures by applying the selected matching algorithm(in our case kernel matching). As indicated earlier, the main purpose of the propensity score estimation is not to obtain a precise prediction of selection into treatment, but rather to balance the distributions of relevant variables in both groups.

The balancing powers of the estimations are ascertained by considering different test methods such as the reduction in the mean standardized bias between the matched and unmatched households, equality of means using t-test and chi-square test for joint significance for the variables used. The mean standardize baise before and after matching are shown in the fifth columns of Table 4.8 while column six reports the total baise reduction obtained by matching procedure.

In the existing matching models, the standardized difference in covariate before matching is in the range of 0.5% and 164% in absolute value. After matching, the remaining standardized difference for all covariates lie between 0.9% and 24.4%, which is below the critical level of 25% suggested by Rosenbaum and Rubin (1985). In all cases, it is evident that sample differences in the unmatched data significantly exceed those in the samples of matched cases.

The process of matching thus creates a high degree of covariate balance between the displaced and not displaced household sample that are ready to use in the estimation procedure.

Similarly, t-values and variance ratio in Tables 4.8 Show that before matching half of chosen variables exhibited statistically significant differences while after matching all of the covariates are balanced and the variance ratio for all covariates after matching are less than the critical value equal to two.

Table 4. 8 Propensity Score and Covariate Balance (pstest)

Variable	Unmatched / Matched	Mean: Treated	Mean: Control	%bias	%reduct |bias|	t-test: t	t-test: p>|t|
SEXHH	U	0.64516	0.63868	1.3		0.15	0.88
	M	0.65363	0.69162	-7.9	-485.8	-0.76	0.445
AGEHH	U	49.129	51.69	-25.7		-2.86	0.004
	M	49.235	47.334	19.1	25.8	1.89	0.06
MAR-S	U	1.371	1.374	-0.5		-0.05	0.959
	M	1.3799	1.4235	-6.5	-1315.7	-0.63	0.528
FAMS	U	5.2527	4.687	26.7		2.9	0.004
	M	5.2514	5.0011	11.8	55.8	1.13	0.261
EDUCL	U	1.0269	1.0229	0.5		0.06	0.952
	M	1.0223	0.95978	8.4	-1471.7	0.78	0.433
PROGS	U	0.62903	0.51654	22.8		2.55	0.011
	M	0.61453	0.55531	12	47.4	1.14	0.257
HIS	U	0.33871	1.3282	-164		-18.24	P<0.000
	M	0.35196	0.34637	0.9	99.4	0.09	0.927
LANS	U	1.321	1.1022	29.6		3.4	0.001
	M	1.302	1.2064	12.9	56.3	1.3	0.193
Spectre	U	0.60215	0.59542	1.4		0.15	0.878
	M	0.62011	0.56648	10.9	-696.8	1.03	0.303
DCTA	U	0.5914	0.44275	30		3.37	0.001
	M	0.58101	0.70168	-24.4	18.8	-2.39	0.017
AGEHHSQ	U	1.6398	1.6947	-2.9		-0.32	0.749
	M	1.6369	1.8223	-9.8	-238	-0.93	0.353
EDUCLSQ	U	2505.4	2775.6	-26.1		-2.89	0.004
	M	2517.6	2355	15.7	39.9	1.6	0.11

Source own estimation result 2021

The low pseudo-R2, the insignificant likelihood ratio tests, the B-value less than 20, the R-value lies between the critical point and the mean baise less than 25 are support the hypothesis that both groups have the same distribution in covariates X after matching (see table 4.9).

Table 4. 9 Chi-square test for joint significance of variables

Sample	Ps R2	LR chi2	p>chi2	Mean Bias	MedBias	B	R
Unmatched	0.396	288.1	p<0.000	26.5	24.3	179.2*	0.9
Matched	0.045	22.2	0.062	4.2	4.8	4.2*	0.67

Source: own survey result, 2021

These results show that the matching procedure is able to balance the characteristics in the treated and the matched comparison groups. We, therefore, used these results to evaluate the impact of internal displacement on household economic performance interms of income, wage of household, annual consumption, production in household level, unemployment of household level, access to education and health care among groups of households having similar observed characteristics. This allowed us to Compare observed outcomes for displaced household with those of a comparison groups (not displaced household) sharing a common support Thus, we can proceed to estimate ATT for households. For detail of Chi-square test for joint significance for the three different matching algorithms (see Appendix -5).

4.3.7. Estimating Treatment Effect on Treated

In order to attain the above stated objectives the following impact indicators of the treatment effect have been performed using the already mentioned PSM model.

Table 4. 10 Result of average treatment effect on treated household

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
LOGINCOME	ATT	8.46411809	9.21042429	-0.7463062	0.12235256	-15.34***
LOGWAGE	ATT	7.5371201	8.21072429	-0.6731228	0.121132058	-14.33***
LOGCN	ATT	8.42525529	9.14627952	-0.72102423	0.121132058	-14.33***
PRODU	ATT	0.74596154	1.39903846	-0.65307692	0.112736926	-8.19 **
UNEMPR	ATT	1.77884615	1.40705128	0.371794872	0.107000064	3.47*
ACEHLC	ATT	0.210000002	0.774038462	-0.56403846	0.11650945	-6.64**
ACEDUC	ATT	0.261	0.798820513	-0.537820513	0.116282225	-5.49**

The bootstrapped SE is obtained after 100 replications

****, ** and * Significant at 1%, 5% and 10% probability level*

Impact Estimate on Total Household annual Income

Computes the average treatment effect using kernel-based matching and the replication option performs the bootstrapping 100 times. The study results revealed that the impact of internal displacement on displaced households influence their listed measurement of economic performance of household.

The study show that annual income of displaced household are lower than annual income of host community (8.4641180 vs 9.21042429) the internal displacement phenomena has negative and highly statistical significant at 1% (*t=-15.34*). Income is one of the most widely used proxy measure of economic performance in recent literatures. After controlling for differences in characteristics of the internally displaced and host community, it was found that, on average, the displaced household has decrease annual income by 74.63 percent due to internal displacement (the value in logarism). Almost all the means of generating household income are loos, break down or interrupt this shows that internal displacement has negative effect on the displaced household income in study area.

Impact Estimation on Wage of Household

Observe that there are substantial differences in wages among displaced household and host community, although these are raw differences and do not take into account other socio-demographic characteristics. For instance, it could be that worker household who were moved by displacement phenomena come from rural and poorer community, where levels of education are comparatively lower, which could explain part of the observed difference. In what follows, we attempt to net out the relationship between internal displacement phenomena and wages from differences in socio-demographic characteristics (libenza *et al., 2014).*

The result in table 4.10 show that the average wage of displaced household are lower than wages of host community (7.5371201 vs 8.21072429) with these differences being statistically significant at standard levels (*t= -14.33*) and the logwage of displaced household are decreased by 67.31% due to internal displacement phenomenon. This implies that phenomena of internal displacement are highly affected and negative relationship household wage.

Impact Estimation on Household Consumption.

The result shows that the consumption of displaced household significantly reduced. Table 4.10 result consumption have been transformed to log form so that the effects can be interpreted as changes in percentage points of consumption indicates the average treatment effect of

displacement on displaced household are significant different (8.42525529 vs 9.14627952) perceive that the displaced household have low consumption to compare to host community by 72.1 percent due to internal displacement phenomenon at 1% significant level (*t= -14.33).* Internal displaced household face server economic challenges as a result of displacement and they face these challenges in the long period of time often spend many years and or even decades. Although these shocks have serve effects on the long run earning prospects of displaced household standard economy stress utility maximization based on consumption (Grasiy *et al.,* 2017).

Impact Estimation on Household Production

Internal Displacement in this final stage an indicator of how much each household contributes to produce, it is likely to lost economic production occurs, since it is assumed that even those who are not within the labor force contribute something to it. With emphasis on the most vulnerable population (from a socioeconomic perspective) remains (Kalindro, 2014).

The finding table 4.10 indicates that effect of internal displacement on production level of displaced household estimation of production is negatively significant difference compare to host community (0.74596154 vs 1.39903846) this Stated that the displaced household low production by means of displace their origin of community and they loss their cultivate land and related resource are destruct because of displacement phenomenon this leads to decrease the production level of household by (65.3) percent to compare host community at 5% significance level (*t=8.19*).

Impact Estimation on Household Unemployment

Table 4.10 indicates that displaced household in meskan and mareko district does have a significantly impact on household unemployment which perceive that unemployment of displaced household are higher than host community (1.77884615, vs 1.40705128) with these differences being statistically significant at standard levels (*t=3.47*).

The average treatment of the treated (ATT) on unemployment in displaced household is increase by 37.2 percent compare to host community due to internal displacement phenomena. This share of people is also affected by the labor force participation rate to reflect the number of people, within the working age, who are unemployed and actively seeking a job.

Impact Estimation on Access to Health Care

Table 4.10 to estimate the average treatment effect of displaced household on the treated for access to health care is decreased by 56.4 percent in study area because of households who have displaced and also the impact is significant at 5 percent level (*t = 6.64*).

This leads that the shortage or decreasing access to health care although affect living in the settlement had access to free basic health consultations at a local clinic, they still needed to pay for more complex treatments and medication at other facilities outside of the settlement. Several respondents from the local community said they did not have access to free healthcare, and the average cost of seeing is increased. When household who have displaced in meskan and mareko district abandon their homes, it is most often because not doing so would pose a serious threat to their safety. Flight is their only way to escape violence and preserve their life. In such circumstances, internal displacement can have adverse effects on displaced household in study area physical and mental health, particularly when it is unplanned and mismanaged, or becomes protracted (Nessin *et al.,* 2018).

These effects on the physical and mental condition of internally displaced people (IDPs) are numerous and often consistent, which allows the identification of common threats. Studies reveal higher mortality rates among IDPs than the general population, mostly the result of communicable diseases. Displacement has also been linked with several reproductive health issues including lack of contraception and increased risk of sexually transmitted infections (STIs), mal or under-nutrition, which is particularly prevalent among young and older IDPs.

Impact Estimation on Access to Education

The impact estimate for access to education are significant negative change between displaced and host community due to displacement phenomenon. Displacement interrupts children's education and separates them from their familiar school environment, teachers and classmates for several years. When they are able to go back to school in their host area or in a camp, they have to make up for lost time while managing the stress and trauma associated with their displacement (Mooney *et al.,* 2015).

The result for Table 4.10 signifies, internal displacement phenomenon have a significant impact on household access to education (0.261 vs 0.798820513) with the standard level (*t =5.49*). The average treatment effect on access to education for displaced household in meskan and mareko district is decrease by 53.78 percent compare to host community.

Nearly every country affected by displacement yields evidence of lower enrolment and achievement rates and higher drop-out rates among displaced children. Most of the educational impacts are the result of the loss of livelihoods, loss of documentation and the absence or inadequacy of schools. Disruption to education can harm the mental health of displaced children, many of whom may already be traumatised by their experiences, and heighten their psychosocial instability. It can affect social cohesion and increase gender inequalities, damaging social life in the short and longer term. In contexts where resources are already limited, the arrival of IDPs has been linked to the overcrowding of educational facilities and a deterioration in the quality of education for all.

4.3.7. Measuring Spillover Effects of internal displacement phenomenon.

This exercise indicates investigate whether internal displacement phenomenon has any impact on host community. This test is similar to what was done at the beginning but it exclude displaced household.

Table 4. 11 Checking spillover effect of internal displacement phenomenon

variable	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]
logincome	-0.233708	0.062119	5.54	0.001***	[-0.1558367 -0.0884215]
logwage	-0.070605	0.0596805	2.18	0.038**	[-0.1879401 -0.0467296]
logCN	-0.070605	0.0596805	1.18	0.238	[-0.1879401 0.0467296]
prod	-0.123049	0.0669463	4.34	0.021**	[-0.1546687 -0.1085707]
unempr	0.0408608	0.0684033	2.6	0.041*	[0.0936236 0.1753451]
aceduc	0.0935183	0.0680812	1.37	0.17	[-0.2273694 0.0403328]
acehlc	0.0378014	0.0617621	0.61	0.541	[-0.083626 0 .1592288]

Source: own survey result, 2021

As can be seen from the Table 4.11 the internal displacement phenomenon are spillover effect on annual income, wage, production and unemployment of household but the others are don't show spillover effect after other covariates are controlled. After controlling for differences in characteristics of the internally displaced and host community it was found that the spillover effect of host community has decrease annual income by 23 percent due to internal displacement (the value in logarism form). Internal displacement phenomenon affect the host-community social network and socio-economic interaction this leads to decrease income of host-community.

The finding Table 4.11 indicates that the spillover effect of internal displacement on production level of host-community estimation of production is decrease by 12 percent this Stated that

displacement affects the production level host-community because of internal displacement phenomenon cause to shortage of agricultural and industrial materials like access of fertilizer and interaction of work network. Logwage of host community are decreased by 7 percent this implies that phenomena of internal displacement are highly affected on wage of host-community. The spillover effect on unemployment in host community is increase by 4 percent due to internal displacement phenomena. This share of people is also affected by the labor force participation rate to reflect the number of people, within the working age, who are unemployed and actively seeking a job other outcome variables are not spillover effect.

4.3.8. Checking Robustness of Average Treatment Effect

There are several ways to check robustness of the findings. One approach is to estimate the propensity score equation and then use the different matching methods previously discussed to compare the results. The findings with different matching techniques are quite consistent. Another way to check robustness is to apply kernel matching instead of estimating the propensity score equation first. If both methods give similar results, then the findings are assumed to be more reliable. The following table estimate the average treatment effect on the outcome of interest using direct nearest-neighbor matching with three match per treatment.

Table 4. 12 Sensitivity analysis using kmatch for outcome variable

Variable	Sample	Coef.	STE	Z	P>|z|	95% CI	
LOGINCOME	SATT	-0.746306201	0.0800599	-24.36	p<0.000	[-2.10691	-1.793086]
LOGWAGE	SATT	-0.6731228	0.0814269	-22.32	p<0.000	[-1.976678	-1.65749]
LOGCN	SATT	-0.72102423	0.0714269	-22.32	p<0.000	[-1.976678	-1.65749]
PRODU	SATT	-0.65307692	0.0726522	-13.69	p<0.000	[-1.13732	-0.8525285]
UNEMPR	SATT	0.371794872	0.059613	3.09	0.002	[.0671759	.3008544]
ACEHLC	SATT	-0.56403846	0.0692718	-10.49	p<0.000	[-0.8623611	-0.5908207]
ACEDUC	SATT	-0.537820513	0.0703497	-9.43	p<0.000	[-0.8012163	-0.5254504]

Source: own survey result, 2021

Results are again consistent with earlier findings above74.63 % percent negative impact of annual income of displaced household is seen at a 5 percent significance level. Similarly the production level, consumption, wage, access to health care and education of displaced household are negative impact at 5 percent significance level and 37.2 percent positive impact in the unemployment of household for the displaced household at 5 percent significant level.

In order to control unobserved baise Table 4.12 below shows the result of sensitivity of internal displacement effects on different outcome variables (measurement of economic performance).

There may be hidden biases against the result of matching estimators and hence testing robustness the result is recommended. As it is not possible to estimate the magnitude of the selection bias with non-experimental data, the problem can be addressed through using sensitivity test. The basic issue in testing sensitivity is to check whether the treatment effect is due to unobserved factor or not. Rosenbaum (2002) proposes using Rosenbaum bounding approach in order to check the sensitivity of the estimated ATT.

Table 4. 13 Robustness for average treatment effect of the outcome variable

variables	$e^{\gamma} = 1$	$e^{\gamma} = 1.25$	$e^{\gamma} = 1.5$	$e^{\gamma} = 1.75$	$e^{\gamma} = 2$	$e^{\gamma} = 2.25$	$e^{\gamma} = 2.5$	$e^{\gamma} = 2.75$	$e^{\gamma} = 3$
LOGINCOME	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000
LOGWAGE	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000
LOGCN	0.003586	0.000193	9.90E-06	5.00E-07	2.60E-08	1.40E-09	7.30E-11	4.10E-12	2.30E-13
PRODU	4.70E-11	5.70E-14	1.10E-16	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000
UNEMPR	2.70E-09	3.00E-12	4.70E-15	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000
ACEHLC	4.20E-12	1.90E-15	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000
ACEDUC	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000	p< 0.000

Source own survey result, 2021

e^{γ} **(**Gamma)=log odds of differential due to unobserved factors where Wilcoxon significance for continuous variable and level for each significant outcome variable is calculated.

Table 4.13 denotes the critical level of e^{γ} (first row), at which the causal inference of significant internal displacement effect has to be questioned. As noted by Hujer et al. (2004), sensitivity analysis for insignificant effects is not meaningful and is therefore not considered here. Given that the estimated internal displacement effect is negative for the significant outcomes, the lower bounds under the assumption that the true treatment effect has been underestimated were less interesting (Becker and Caliendo, 2007) and therefore not reported in this study.

Rosenbaum bounds were calculated for internal displacement effects that are negative and significantly different from zero. The first column of the table shows those outcome variables which bears statistical difference between treated and control households in our impact estimate above. The rest of the values which corresponds to each row of the significant outcome variables are p-critical values (or the upper bound of Wilcoxon significance level -Sig+ for continuous outcome variable and Mantel-Henzel (mhbound) upper bound significance level for categorical variable) at different critical value of e^{γ}

Result show that the inference for the effect of the internal displacement crisis is not changing though the displaced and not-displaced households has been allowed to differ in their odds of being treated up to 200% (3) in terms of unobserved covariates. That means for all outcome

variables estimated at various level of critical value of Result show that the inference for the effect of the internal displacement not changing though the displaced and host community has been allowed to differ in their odds of being treated up to 200% (3**)** in terms of unobserved covariates**.**

That means for all outcome variables estimated at various level of critical value of e^{γ}, the p-critical values are significant which further indicate that we have considered important covariates that affected both participation and outcome variables. We couldn't get the critical value e^{γ}**,** where the estimated ATT is questioned even if we have set largely up to 3, which is larger value compared to the value set in different literatures which is usually 2 (100%).Thus, we can conclude that our impact estimates (ATT) are insensitive to unobserved selection bias and are a pure effect of internal displacement.

5. CONCLUSION AND RECOMMENDATION

5.1.Conclusion

In this study the impact of internal displacement on household economic performance in case of SNNPR Gurage Zone Meskan and Mareko District has been assessed using cross sectional data. The primary data for this study were collected from 613 households from both displaced and not-displaced households in meskan and mareko district using a structured questionnaire.

The main research question of the study was what would have happened to an outcome of interest had the internal displacement phenomenon not been in place. Answering this question requires observing outcomes displaced-and (not-displaced) settled in original place for the same household. However, it is impossible to observe the same object in two states simultaneously. While the evaluator observes the factual for an object, it is impossible to observe the counter-factual for the same object.

In non-experimental design, since the treatment placement creates selection effect, simple with-and-without comparison of means for displaced and not displaced households would make the biased estimates. Hence, the study has applied a propensity score matching technique which has become the most widely applied non-experimental tool for impact evaluation. It is used to extract comparable pair of treatment-comparison households in a non-random selection setup and in the absence of baseline data. Moreover, it can adjust for (but not totally solve the problem of) selection bias and in estimating the counterfactual effects.

Internal displacement can have devastating effects on the lives of displaced people. As result, displaced household in the meskan and mareko district was determined by a combination of factors. Displaced household is significantly influenced by six explanatory variables. The variables sex, housing and infrastructure, price of goods and service, size of owned land and family size are significant variables which affect the displaced household behind displacement phenomenon.

Finding a reliable estimate of the displacement impact on household economic performance necessitates controlling for all such confounding factors adequately. In doing so, propensity score matching has resulted in 169 displaced households to be matched with 393 host community after discarding households whose values were out of common support region.

In other words, matched comparisons of different outcome of interest were performed on these households who shared similar pre-treatment characteristics except who have displaced effect.

The resulting matches passed on many process of matching quality tests such as t-test, reduction in standard bias, variance ratio for continuous variable R, B, P-value and likely-hood ratio test, average mean baise and chi-square test. Moreover, the computed parametric standard error was bootstrapped in order to capture all sources of errors in the estimates and finally sensitivity analysis was made.

The impact estimate results indicate that there are significant differences in interest variables of Economic performance outcomes between treatment and comparison households, which could be attributable to the displaced household in displacement phenomenon. The effect of the internal displacement phenomenon on total household annual income, consumption, wage, access to education, access to health care and production for the household are lowest for the displaced households which are statistically negative and significant impact. Moreover, the internal displacement impact on unemployment level of household is increase for displaced households which are measured using different indicators.

The displaced household in study area is related to decreases 74 percent of annual income by displacement phenomenon and also Similar to the production, consumption, wage, access to health care and access to education of displaced household are negative impact at 5% significance level and 37.2 % increase in the unemployment for the displaced household to compare to host community which means displaced household are highly affected by the displacement phenomenon. The result shows internal displacement have spillover effect to host community in study area. The result of Rosenbaum bounding procedure to check the hidden bias due to unobservable selection shows that all estimated ATTs for all significant outcome variables are insensitive which clearly indicate its robustness (the treatment effect is exactly estimated by the internal displacement phenomenon).

The results also serve to encourage future research on this topic, to find answers to the question of how displaced household in particular are more affected by this displacement phenomenon. One extension to the analysis would be to analyze why the subsidies given by the government are insufficient in solving this problem. Subsidies and psychological support must form a basis for displaced household, as they are exiled from their regions of origin, with few, if any, resources, in conditions of fear and anguish. Another extension would be an analysis of labor-

force participation decisions. However, it is necessary to analyze the extent to which the displaced have problems to finding jobs in their regions of destination.

One of the limitations of our analysis is not address the impact of internal displacement like environment, social life, and sub-measurement because of suitability of data and the using model constrain it is not analyzed in the same model at a time, based on its characteristics and absence of baseline survey then the next researcher will come to the fore. Therefore more research on this topic is needed.

5.2. Recommendation

Based on the empirical finding reported in this study, the following recommendation are forwarded.

1. Government to create ways to return the displaced household in to the community of origin and to compensate for destruct property specially the cost of basic needs are possible resolution. Compensation for the effects of internal displacement should be commensurate with the cost of properties destroyed. Majority of the respondents in this study complained that compensation was nowhere near the value of property demolished.
2. Government to create work opportunity to displaced household with in displaced area as well as return area by giving short term traning, facilitate the work area and support financing with interconnect to enterprizes and follow up the effectively implement these policies and programs by organizing committees and other focusing group until the displaced household to achieve self-reliance or survive.
3. Government and focusing group urgent resolve to the cause of internal displacement issues and to create peace and security to economical, social and political as well.
4. Public policies focused on mitigating the negative impact of internal displacements, via subsidies or reduction in the prices of public services, can help to alleviate such conditions. Furthermore, the negative effect has a greater impact on women, who are an important factor in the educational and childcare systems. Furthermore, forced displacements contribute negatively to the development of the country, and pose unique challenges for crafting state policy to effectively mitigate the impacts of displacement, and an analysis of the economic consequences of this phenomenon may help to guide public policies of alleviation. These are the reasons why the topic is important, and of growing urgency given displacement dynamics in other contexts.

References

Alfa Shaban, M. A. (2019, May 12). Ethiopia has world's biggest internally displaced population. *the biggest interal displced population*.

Alix-Garcia, J. a. (2010). The effect of refugee inflows on host communities: Evidence from Tanzania. *The World Bank Economic Review,*, 24(1), 148-170.

Al-Mahaidi, A. a. (2020). Securing economic livelihoods for Syrian refugees: the case for a human rights-based approach to the Jordan Compact. *The International Journal of Human Rights,*, 1-28.

Alobo, E. (2016). Internal displacement in Nigeria and the case for human rights protection of displaced persons. . *JL Pol'y & Globalization*, 51, 26.

Ambaye, G. (2015). Development-Induced Displacement and its impacts on the livelihoods of poor urban households in Bahir Dar, North Western Ethiopia . *African Human Mobility Review*, 1(3), 310-331.

Anan, P. (2010). Monitoring, evaluation and impact assessment of partnerships.

Asfour, H. (2020). nternal Displacement in the Middle East. *A Review of the Literature.*

Asnake, A. (2016). The Role Of Ethiopia in Conflict Resolution in The Horn of Africa: The Case of Somalia (Since 1991-Present) . *Doctoral dissertation, St. Mary's University*.

Assaad, R. G. (2018). Impact of Syrian refugees in Jordan on education outcomes for Jordanian youth. *In Economic Research Forum Working Paper Series*, No (Vol. 1214).

Baker, J. L. ((2018)). Evaluating the impact of development projects on poverty: . *A handbook for practitioners. The World Bank.*

Barakat, S. (2013). Stabilization Operations, Security and Development. *Journal of States of Fragility*.

Beaman, L. A. (2012). Social networks and the dynamics of labour market outcomes: Evidence from refugees resettled in the US. *The Review of Economic Studies*, 79(1), 128-161.

Beanlands, G. E. (2014). Ecological framework for environmental impact assessment. *J. Environ. Manage.;(United States),*, 18(3).

Belayneh, w. (2020). Internal Displacement in Ethiopia Since 2016: Challenges and Prospects of Local Integration in Sekela Woreda, Amhara Region. *(Doctoral dissertation)*.

Blattman, C. (2010). Civil war. . *Journal of Economic literature, ,* 48(1), 3-57.

Borjas, G. J. (2003.). "The Labor Demand Curve Is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market. *The Quarterly Journal of Economics,,* 118(4): 1335–1374.

Bradley, M. (2017). The International Organization for Migration (IOM): gaining power in the forced migration regime . *Journal on Refugees,* 33(1), 97-106.

Bursun., A. A. (2003). The economic costs of conflict: A case study of the Basque Country. *American Economic Review,* 93, 113-132.

Carrillo, A. C. (2009). Internal displacement in Colombia: humanitarian, economic and social consequences in urban settings and current challenges. *Int'l Rev. Red Cross,,* 91, 527.

Ceriani, L. (2018). Risk preferences and the decision to flee conflict. *World Bank Policy Research Working Paper,* 83-76.

Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass communication & society,,* 4(3), 245-264.

Cohen, R. (2012). Masses in flight: the global crisis of internal displacement. . *Brookings Institution Press.*

Council, R. P. (2015). Internal Displacement Monitoring Centre and Norwegian Refugee Council. *Global Overview 2015: People Internally Displaced by Conflict and Violence,* (www. internal-displacement. org/assets/library/Media/201505-Global-Overview-2015/201505.

Creswell, J. W. (2009). Mapping the field of mixed methods research.

Djigsa, W. K. (2019). The Protection of Internally Displaced Persons in Ethiopia. . *Journal of Internal Displacement, ,* 9(1), 36-50.

Domar, W. O. (2018). 'Faith can come in, but not religion': secularity and its effects on the disaster response to Typhoon Haiyan. *Disasters,* 42(3), 459-474.

Doocy, S. L. (2015). Internal displacement and the Syrian crisis: an analysis of trends from 2011–2014. *Conflict and health*, 9(1), 1-11.

Duenas, X. (2013). Internal displacement and the education of school-aged children in Colombia . *Doctoral dissertation, Columbia University*.

Fiseh, K. (2010). Conflict displacement and labor market outcomes in post-war Bosnia and Herzegovina. *Journal of Development Economics*, 93(2), 235-248.

Frobi, M. F. (2018). The impact of internal displacement on destination communities: Evidence from the Colombian conflict. *Journal of Development Economics,*, 131, 132-150.

Geda, A. (2016). Conflict, Post-Conflict and Economic Performance in Ethiopia. In Post-Conflict Economies in Africa . *Palgrave Macmillan, London*, 125-142.

Gertler, P. J. (2016). Impact evaluation in practice. *The World Bank*.

Grasiy., H. F. (2017). The impact of displacement on house hold consumption . *World Displacement impact*, 87-95.

Heckman, J. (1998). Sample Selection Bias as a Specification Error. *Econometrica, ,* 47, 153-161.

Heudtlass, P. S.-S. (2016). Excess mortality in refugees, internally displaced persons and resident populations in complex humanitarian emergencies (1998–2012). *insights from operational data. Conflict and health,*, 10(1), 1-11.

IDMC. (2019). Global Report on Internal Displacement 2019.

IDMC. (2017). internal Displacement: Global Overview of Trends and Developments. *Geneva: IDMC*.

Jacobson, L. L. (2005). Estimating the returns to community college schooling for displaced workers . *Journal of Econometrics*, 125(1-2), 271-304.

Jugule .R, f. (2010). Do conflicts create poverty traps. 137-172.

Kakonge, J. O. (2009). A review of refugee environmental-oriented projects in Africa: a case for environmental impact assessment. . *Impact Assessment and Project Appraisal, ,* 18(1), 23-32.

Kalin Quinic, B. E. (2014). Internal displacement. *The Oxford Handbook of Refugee and Forced Migration Studies*, 1-10.

Kälin, W. (2018). Guiding Principle 28: The unfulfilled promise to end protracted internal displacement. *International journal of refugee law*, 30(2), 243-268.

Kalindro, J. (2014). Multi dimentional impact of conflict on the world . *African situation of displacement*.

Kamara, J. K. (2017). The social and political dimensions of internal displacement in Uganda: challenges and opportunities. *a systematic review. African Studies*, 76(3), 444-473.

Khandker, S. B. (2017). Handbook on impact evaluation: quantitative methods and practices. *The World Bank.*

Kletzer, L. G. (2014). Job displacement. *Journal of Economic perspectives,*, 12(1), 115-136.

Kuhlmann, S. (2016). Institutional impact assessment in multi-level systems: conceptualizing decentralization effects from a comparative perspective. . *international jiournal of Administrative Sciences,* , 82(2), 233-254.

Lee, L. T. (2015). Internally displaced persons and refugees: toward a legal synthesis? *Journal of Refugee Studies*, 9(1), 27-42.

leus, E. (2013). The concept of internal displacement and the case for internally displaced persons as a category of concern. *Refugee survey quarterly*, 24(3), 9-26.

Lichtenheld, A. G. (2021). The consequences of internal displacement on civil war violence: Evidence from Syria. *Political Geography,* .

Lischer, S. (2014). Conflict and crisis induced displacement. *The Oxford Handbook of Refugee and Forced Migration Studies, Oxford University Press, Oxford*, 317-329.

Maqbool, T. (2019). Global scenario of Conflict Induced Displacement: A survey of literature. Research Review Journals in Research Review International Journal of Multidisciplinary,. 46-50.

Maran, J. K. (2018). The social and political dimensions of internal displacement in Uganda: challenges and opportunities–a systematic review. *African Studies*.

Mehari, T. (2018). The Global Compact on safe, orderly and regular migration. *What Africa should demand from the world and from itself*.

Mohamed, E. S. (2020). Environmental Change, Conflicts and Internal Displacement as Destabilizing Factors to Food Security in Lebanon. *Journal of Internal Displacement,*, 10(2), 2-24.

Monsalve, S. M. (2020). . Mental health among displaced and non-displaced populations in Valledupar. *Why do inequities continue?*

Mooney Enro, A. A. (2015). The concept of internal displacement and the case for internally displaced persons as a category of concern. *Refugee survey quarterly*, 24(3), 9-26.

Musgrave Alema, L. J. (2017). Together Again: Reuniting refugee families in safety. *what the UK can do*.

Nessin, w. S. (2018). the influence of displacement on health care in syrian. *displacement in African community* , 327-362.

Nkwatoh lonin, w. d. (2021). Macroeconomic Impact of Refugee Inflow on West African Countries. *Quantitative Economics and Management Studies*, 2(1), 36-46.

Olivetti, C. (2015). ln the name of the son (and the daughter): Intergenerational mobility in the united states, . *American Economic Review,1850-1940.*, 105(8), 2695-2724.

Omoto, W. (2013). Impact assessment of urban agriculture research and development in Nairobi. *Department of Research Development Nairobi Kenya.*

Owoaje, E. T. (2016). A review of the health problems of the internally displaced persons in Africa. . *Nigerian postgraduate journal*, 23(4), 161.

Paserman, M. D. (2013). Do high-skill immigrants raise productivity? Evidence from Israeli manufacturing firms,. *IZA Journal of Migration, ,* 2(1), 1-31.

Porter Melon, H. N. (2011). Predisplacement and postdisplacement factors associated with mental health of refugees and internally displaced persons: . *a meta-analysis.*, 294(5), 602-612.

Salleh Munir, A. A. (2018). Forced displacement and the plight of internally displaced persons in Northeast Nigeria. *Humanities and Social Science Research*, 1(1), p46-p46.

Seim, D. (2018). Job displacement and labor market outcomes by skill level. *Eesti Pank University Working Paper*.

Shultz, J. M. (2019). Internal displacement and there effect to the growth. 2(1), 13-24.

Spröhnle, K. K. (2016). Earth observation-based multi-scale impact assessment of internally displaced person (IDP) camps on wood resources in Zalingei, Darfur. Geocarto International. 31(5), 575-595.

Van der Ploeg, L. (2017). A human rights based approach to project induced displacement and resettlement. . *Impact assessment and project appraisal, ,* 35(1), 34-52.

Vanclay, F. (2011). New directions in social impact assessment: conceptual and methodological advances. *Edward Elgar Publishing.*

Verme. (2017). The economics of forced displacement. *The World Bank.*

Verme Panson, S. K. (2021). The impact of forced displacement on host communities a review of the empirical literature in economics. *Journal of Development Economics,* 31-55.

Vernier, L. C. (2019). High levels of mortality, exposure to violence and psychological distress experienced by the internally displaced population of Ein Issa camp.

White, H. (2010). A contribution to current debates in impact evaluation. *Evaluation,,* 16(2), 153-164.

Williams Genni, E. A. (2019). Internal displacement and external migration in a post-conflict economy: Perceptions of institutions among migrant entrepreneurs. *Journal of International Entrepreneurship,* 17(4), 558-585.

Williams, N. and. (2019). Internal displacement and external migration in a post-conflict economy: Perceptions of institutions among migrant entrepreneurs. *Journal of International Entrepreneurship,* 17(4), 558-585.

Yarnell, C. J. (2017). Association between immigrant status and end-of-life care in . *Ontario, Canada. Jama*, 318(15), 1479-1488.

Yigzaw, G. S. (2019). Causes and impacts of internal displacement in Ethiopia. *African Journal of Social Work*, 9(2), 32-41.

Zea J. (2011). Internal displacement: Violence, public and socioeconomic policy in Colombia. *journal of internal displecement*, 41-56.

Appendix

Appendix-1The Descriptive Statistics of total Household

-> treat = not displaced

Variable	Obs	Mean	Std. Dev.	Min	Max
agehh	393	51.68957	10.27481	25	74
sexhh	393	.4427481	.4973446	0	1
mar_s	393	1.374046	.6925538	0	3
fams	393	4.687023	2.318132	0	9
prod	393	1.424936	.6624699	0	2
CEP	393	1.083969	.4351548	0	2
aceduc	393	1.104326	.6752223	0	2
acehlc	393	1.198473	.6113699	0	2
anIN	393	28267.45	11002.31	400	45000
anCN	393	25177.5	9838.511	400	54321
educ	393	1.022901	.7572673	0	3
wagehh	393	1262.774	820.2064	0	3500
price	393	.5165394	.5003634	0	1
HIS	393	1.328244	.6199418	0	2
unempr	393	1.536896	.6770943	0	2
lans	393	1.102163	.6943204	0	3
logincome	393	10.1255	.6148399	5.991465	10.71442
logwage	393	10.01499	.5915376	5.991465	10.90267
logCN	393	10.01499	.5915376	5.991465	10.90267

-> treat = displaced

Variable	Obs	Mean	Std. Dev.	Min	Max
agehh	220	49.01818	9.620167	32	74
sexhh	220	.6	.4910152	0	1
mar_s	220	1.345455	.6329804	0	3
fams	220	5.281818	1.843819	1	9
prod	220	.4636364	.7900901	0	2
CEP	220	.25	.593919	0	2
aceduc	220	.4954545	.7119189	0	2
acehlc	220	.4909091	.7614628	0	2
anIN	220	4498.909	4582.344	0	24500
anCN	220	4498.909	4582.344	0	24500
educ	220	1.027273	.7335295	0	3
wagehh	220	233.7727	409.9308	0	2400
price	220	.6590909	.4750958	0	1
HIS	220	.3363636	.5856312	0	2
unempr	220	1.777273	.5060653	0	2
lans	220	1.281136	.7760814	0	4
logincome	186	8.215842	.9603687	5.298317	10.10643
logwage	186	8.215842	.9603687	5.298317	10.10643
logCN	186	8.215842	.9603687	5.298317	10.10643

Appendix-2. Categorical Variable output (chi-square test)

Variable	Category	Displaced (n= 220) ,percent	Not displaced (n= 393)frequency	Total (N=613) frequency	χ^2
	Male	132(60%)	174(44.27%)	306(49.91%)	
SexHH	Female	88(40%)	219(55.72%)	307(50.08%)	13.9511
	single	2(0.9%)	9(2.2%)	11(1.7%)	
	Married	157(71.36%)	267(67.9%)	424(69.16%)	
	Divorced	44(20%)	78(19.84%)	122(19.90?%)	2.4846
Mar_status	Widowd/widower	17(7%)	39(9.92%)	56(9.13%)	
	Decrease	159(72%)	38(9.66%)	197(32.13%)	
	No change	20(9%)	150(38.16%)	170(27.73%)	
Cahhpr	Increase	419%)	205(52.16%)	246(40.13%)	254.512
	Illiterate	49(22.27%)	94(23.91%)	143(23.32%)	
	Primary	123(55.9%)	210(53.43%)	333(54.32%)	
	Secondary	41(18.6%)	75(19%)	116(18.92%)	
Educl	Collage and above	7(3%)	14(3.56%)	21(3.42%)	0.3972
	No	75(34%)	190(48.34%)	265(43.23%)	
PROGS	Yes	145(65.9%)	203(51.65%)	348(56.76%)	11.6787
	decay	159(72.27%)	32(8.14%)	191(31.15%)	
	No change	48(21.8%)	200(50.89%)	248(40.45%)	
HIS	Improve	13(5.9%)	161(40.96%)	174(28.38%)	276.707
	decrease	9(4%)	41(10.43%)	50(8.15%)	
	No change	31(14%)	100(25.44%)	131(21.37%)	
UNEMPRHH	Increase	180(81.81%)	252(64.12%)	432(70.47%)	21.7305
	decrease	139(63.18%)	71(18.06%)	210(34.25%)	
	No change	53(24%)	210(53.43%)	263(42.9%)	
ACEDUC	Increase	28(12.72%)	112(28.49%)	140(22.83%)	127.47
	decrease	148(67.27%)	42(10.68%)	190(30.99%)	
	No change	36(16.36%)	231(58.77%)	267(43.55%)	
ACEHLC	Improve	36(16.36%)	120(30.53%)	156(25.44%)	215.091

Appendix-3 Multicoliniarity

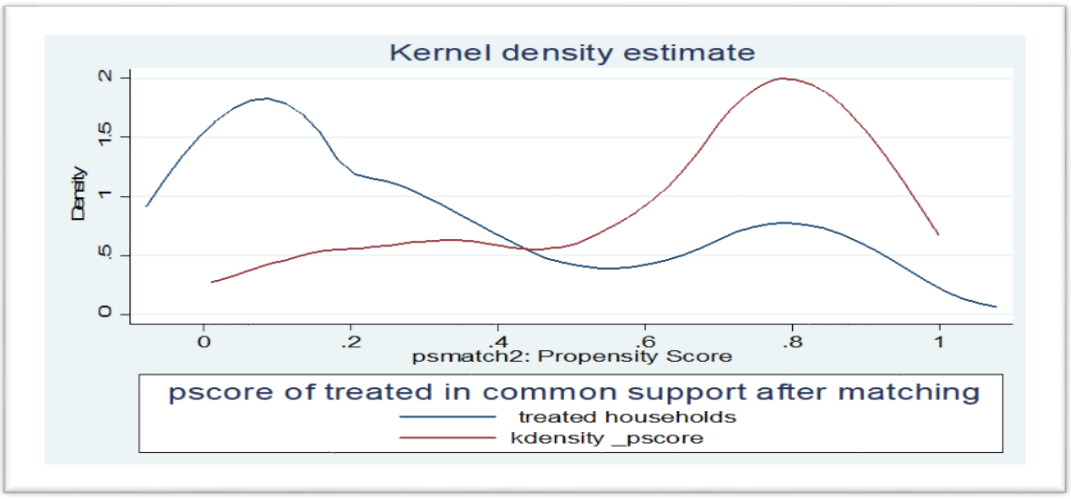
Variable	VIF	1/VIF
POGS	3.49	0.286667
spectre	3.47	0.288407
educsq	3.27	0.305540
educ	3.27	0.305695
DTCZ	1.29	0.776867
sexhh	1.28	0.783582
mar_s	1.03	0.974256
fams	1.01	0.985513
lans	1.01	0.994147
agehh	1.00	0.996267
Mean VIF	2.01	

Appendix-4 Testing estimate of propensity score

Estimated propensity score

	Percentiles	Smallest		
1%	.0151619	.0143184		
5%	.0213411	.0144253		
10%	.0292694	.0146512	Obs	562
25%	.1019944	.0146871	Sum of Wgt.	562
50%	.3098948		Mean	.39479
		Largest	Std. Dev.	.3159368
75%	.721123	.9904842		
90%	.8646744	.9943337	Variance	.0998161
95%	.9086868	.9954697	Skewness	.4204181
99%	.9871921	.9988836	Kurtosis	1.723903

Kernel density of displaced household on common support region



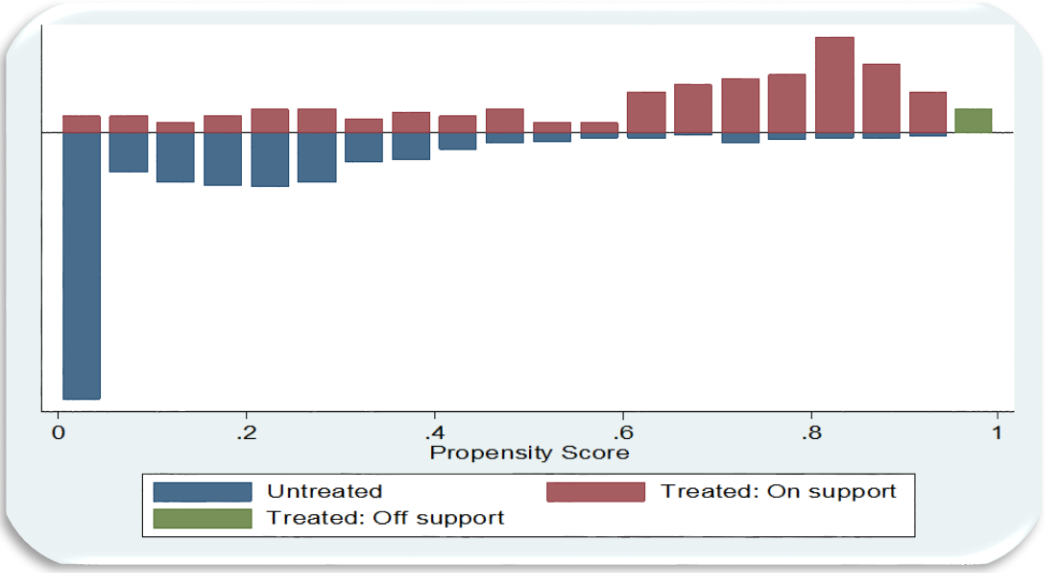
Source own computation stata result, 2021

Appendix-5 Joint significance test (likelihood ratio test)

Matching algorithms	Sample	Pseudo R2	LRchi2	P>chi2
NN (1)	U	0.396	288.10	0.000
	M	0.044	21.75	0.059
NN (2)	U	0.396	288.10	0.000
	M	0.053	26.25	0.016
NN (3)	U	0.396	288.10	0.000

	M	0.046	22.75	0.045
NN (4)	U	0.396	288.10	0.000
	M	0.052	26.04	0.017
NN (5)	U	0.396	288.10	0.000
	M	0.046	22.84	0.044
Caliper (0.01)	U	0.396	288.10	0.000
	M	0.058	26.35	0.015
Caliper (0.25)	U	0.396	288.10	0.000
	M	0.044	21.45	0.064
Caliper (0.5)	U	0.396	288.10	0.000
	M	0.139	68.20	0.000
Kernel (0.1)	U	0.396	288.10	0.000
	M	0.046	22.67	0.046
Kernel (0.25)	U	0.396	288.10	0.000
	M	0.045	22.20	0.062
Kernel (0.5)	U	0.396	288.10	0.000
	M	0.059	29.35	0.006

Appendix-6 Histogram of propensity score




```
**********************************************************
Step 1: Identification of the optimal number of blocks
Use option detail if you want more detailed output
**********************************************************

The final number of blocks is 5

This number of blocks ensures that the mean propensity score
is not different for treated and controls in each blocks

************************************************************
Step 2: Test of balancing property of the propensity score
Use option detail if you want more detailed output
************************************************************

The balancing property is satisfied

This table shows the inferior bound, the number of treated
and the number of controls for each block
```

Estimated propensity score				
	Percentiles	Smallest		
1%	0.0151619	0.0143184		
5%	0.0213411	0.0144253		
10%	0.0292694	0.0146512	Obs	562
25%	0.1019944	0.0146871	Sum of Wgt.	562
50%	0.3098948		Mean	0.39479
		Largest	Std. Dev.	0.3159368
75%	0.721123	0.9904842		
90%	0.8646744	0.9943337	Variance	0.0998161
95%	0.9086868	0.9954697	Skewness	0.4204181
95%	0.9871921	0.9988836	Kurtosis	1.723903

Appendix-7 Estimation of logistic regression model

Logistic regression — Number of obs = 613; LR chi2(11) = 81.64; Prob > chi2 = 0.0000; Log likelihood = -359.33235 — Pseudo R2 = 0.1020

treat	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
sexhh	-.3459802	.2191044	-1.58	0.114	-.7754169	.0834565
agehh	-.0252171	.0591336	-0.43	0.670	-.1411168	.0906826
mar_s	-.1042896	.1366621	-0.76	0.445	-.3721424	.1635632
fams	.134255	.0419063	3.20	0.001	.0521201	.2163898
educ	.0723466	.2232871	0.32	0.746	-.365288	.5099813
POGS	2.480182	.5487228	4.52	0.000	1.404705	3.555659
lans	.3704526	.1226061	3.02	0.003	.1301491	.6107562
spectre	-2.160046	.5489132	-3.94	0.000	-3.235896	-1.084196
DTCZ	.7782418	.2116805	3.68	0.000	.3633556	1.193128
educsq	-.0561071	.0869942	-0.64	0.519	-.2266126	.1143985
agehhsq	-.0000554	.0005726	-0.10	0.923	-.0011777	.001067
_cons	-.4546151	1.536366	-0.30	0.767	-3.465838	2.556608

Source own survey result, 2021

Appendix-8 Covariate balancing test

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t-test t	t-test p>|t|	V(T)/ V(C)
agehh	U	49.018	51.69	-26.8		-3.16	0.002	0.88
	M	49.014	47.195	18.3	31.9	1.95	0.052	1.11
mar_s	U	1.3455	1.374	-4.3		-0.51	0.613	0.84
	M	1.3558	1.4413	-12.9	-199.3	-1.34	0.180	0.96
fams	U	5.2818	4.687	28.4		3.27	0.001	0.63*
	M	5.2788	5.0048	13.1	53.9	1.31	0.191	0.59*
educ	U	1.0273	1.0229	0.6		0.07	0.945	0.94
	M	1.024	.92596	13.2	-2143.3	1.31	0.191	0.88
price	U	.65909	.51654	29.2		3.44	0.001	.
	M	.63942	.59615	8.9	69.6	0.91	0.365	.
HIS	U	.33636	1.3282	-164.5		-19.38	0.000	0.89
	M	.35577	.34135	2.4	98.5	0.25	0.802	1.08
lans	U	1.2811	1.1022	24.3		2.93	0.003	1.25
	M	1.2714	1.2139	7.8	67.9	0.85	0.396	1.71*
sexhhsq	U	.64091	.63868	0.5		0.06	0.956	.
	M	.65385	.67115	-3.6	-675.3	-0.37	0.710	.
agehhsq	U	2494.9	2775.6	-27.1		-3.19	0.002	0.84
	M	2497.3	2351.8	14.1	48.2	1.54	0.124	1.18
mar_ssq	U	2.2091	2.229	-0.9		-0.10	0.920	0.94
	M	2.25	2.4933	-10.4	-1121.4	-1.06	0.291	1.00
educsq	U	1.6636	1.6947	-1.6		-0.19	0.850	0.92
	M	1.6683	1.7952	-6.6	-309.2	-0.67	0.504	0.98
pricesq	U	.61818	.59542	4.7		0.55	0.581	.
	M	.64423	.60962	7.1	-52.1	0.73	0.467	.

* if variance ratio outside [0.77; 1.30] for U and [0.76; 1.31] for M

Appendix- 9 Sample size determination using power calculation

```
. power twoproportions 0.376 0.5,  n(613)

Estimated power for a two-sample proportions test
Pearson's chi-squared test
Ho: p2 = p1  versus  Ha: p2 != p1

Study parameters:

        alpha =    0.0500
            N =       613
        delta =    0.1240  (difference)
           p1 =    0.3760
           p2 =    0.5000

Actual sample sizes:

            N =       612
  N per group =       306

Estimated power:

        power =    0.8729


. power twoproportions 0.5, rrisk(0.752)

Performing iteration ...

Estimated sample sizes for a two-sample proportions test
Pearson's chi-squared test
Ho: p2 = p1  versus  Ha: p2 != p1

Study parameters:

        alpha =    0.0500
        power =    0.8000
        delta =    0.7520  (relative risk)
           p1 =    0.5000
           p2 =    0.3760
        rrisk =    0.7520
```

Cheaking robustness for categorical variable.

```
Mantel-Haenszel (1959) bounds for variable prod

Gamma         Q_mh+     Q_mh-     p_mh+     p_mh-
----------------------------------------------------
    1        6.47616   6.47616   4.7e-11   4.7e-11
 1.25        7.42304   5.58971   5.7e-14   1.1e-08
  1.5        8.22616   4.88397   1.1e-16   5.2e-07
 1.75        8.93545    4.3029         0   8.4e-06
    2        9.57534   3.80962         0    .00007
 2.25        10.1617   3.38137         0   .000361
  2.5        10.7053   3.00313         0   .001336
 2.75        11.2139   2.66448         0   .003855
    3        11.6934   2.35794         0   .009188

Gamma : odds of differential assignment due to unobserved factors
Q_mh+ : Mantel-Haenszel statistic (assumption: overestimation of treatment effect)
Q_mh- : Mantel-Haenszel statistic (assumption: underestimation of treatment effect)
p_mh+ : significance level (assumption: overestimation of treatment effect)
p_mh- : significance level (assumption: underestimation of treatment effect)

. mhbounds (unempr ) , gamma (1 (0.25) 3)

Mantel-Haenszel (1959) bounds for variable unempr

Gamma         Q_mh+     Q_mh-     p_mh+     p_mh-
----------------------------------------------------
    1        2.68878   2.68878   .003586   .003586
 1.25        3.54884   1.85482   .000193   .031811
  1.5        4.26696   1.17964   9.9e-06   .119071
 1.75        4.89059   .612883   5.0e-07   .269977
    2         5.4454   .123513   2.6e-08    .45085
 2.25         5.9478   .033805   1.4e-09   .486516
  2.5        6.40891   .418534   7.3e-11   .337778
 2.75        6.83661   .767071   4.1e-12    .22152
    3        7.23666   1.08605   2.3e-13   .138728

Gamma : odds of differential assignment due to unobserved factors
Q_mh+ : Mantel-Haenszel statistic (assumption: overestimation of treatment effect)
Q_mh- : Mantel-Haenszel statistic (assumption: underestimation of treatment effect)
p_mh+ : significance level (assumption: overestimation of treatment effect)
p_mh- : significance level (assumption: underestimation of treatment effect)

. mhbounds ( aceduc ) , gamma (1 (0.25) 3)

Mantel-Haenszel (1959) bounds for variable aceduc

Gamma         Q_mh+     Q_mh-     p_mh+     p_mh-
----------------------------------------------------
    1        5.83733   5.83733   2.7e-09   2.7e-09
 1.25        6.88082   4.83434   3.0e-12   6.7e-07
  1.5        7.74817   4.02226   4.7e-15   .000029
 1.75        8.49941   3.34369         0   .000413
    2        9.16535   2.76073         0   .002884
 2.25        9.76591   2.24954         0   .012239
  2.5        10.3147   1.79421         0    .03639
 2.75        10.8213   1.38355         0   .083248
    3        11.2931   1.00944         0   .156382

Gamma : odds of differential assignment due to unobserved factors
Q_mh+ : Mantel-Haenszel statistic (assumption: overestimation of treatment effect)
Q_mh- : Mantel-Haenszel statistic (assumption: underestimation of treatment effect)
p_mh+ : significance level (assumption: overestimation of treatment effect)
p_mh- : significance level (assumption: underestimation of treatment effect)
```

Apppendix-10 Questionnaire

INTRODUCTION

I am a student at the University of Wolkite Ethiopia conducting research on the "impact of internal displacement on household economic performance in case of Meskan and Mareko District".by collected the information about them. Your response are valuable for the improvement of the existing/college system. Please be free and provide genius response. All your response are secured from consequences. All information will be used only for academic purposes but also may be used by other relevant stakeholders within and outside of the university for the purposes of developmental intervention.

Instruction: - Please do not write your name and response to your question by making a tick (x) in the box and write in the space provided for appropriate choice and continues answer.

Part I: - Socio-demographic background information

1. Sex of the household head Male ☐ Female ☐

2. Age of the household head _____

3. Education level of the household head

Illiteracy ☐ Primary education ☐

Secondary education ☐ diploma ☐

University education ☐ other (please specify _____

4. Marital status of the household head

Single ☐ married ☐ living with a partner ☐

Widower, widowed ☐ Separated or divorced ☐

5. Do you have children? Yes ☐ No ☐

6. If the answer in question #5 is yes how many _____

7. What is your current status?

Displaced ☐ host community ☐

8. If your status is displaced what is the reason for your Displacement?

Threat of ethnic conflict ☐ development induce factor ☐

Climate induce factor ☐ generated by violence ☐

Other (please specify _____

9. The answer is also displaced what is there loss compare to not displaced household?

Livelihood ☐ Education ☐ Environment ☐

Security ☐ Heath ☐ housing and infra-structure ☐

Increase production ☐ increase wage ☐ increase labour demand ☐

Increase population size ☐ decrease population size ☐ increase price ☐

Other (please specify _____

10. The answer is also displaced what is there benefit compare to host community?

Livelihood ☐ Education ☐ Environment ☐

Security ☐ Heath ☐ housing and infra-structure ☐

Increase production ☐ increase wage ☐ increase labour demand ☐

Increase population size ☐ decrease population size ☐ increase price ☐

Other (please specify _____

11. If your answer is host community what is the benefits to compare to displaced household?

Better income ☐ Better opportunity to job ☐

Better access to education ☐ Better access to health ☐

Other (please specify _____

12. How do you feel in your current place of status?

Secure ☐ moderate ☐ insecure ☐

Part II: - Socio-Economic Information

1. What is your current economic performance?

High ☐ medium ☐ low ☐

2. If the answer in question # 13 was low what is the reason?

Internal displacement ☐ climate condition ☐

Production capacity ☐ Shortage of Farm Land ☐

Other (please specify _____

3. How many is your annual income? _____ Birr

4. What is your monthly wage/salary? _____Birr

5. What is the distance of conflict area to you live _____km

6. Are you displace in spectre condition? Yes ☐ No ☐

7. What is your amount of annual consumption?

8. What is the access to Education? Increase ☐ the same ☐ decrease ☐

9. What is the access to your family's health care? Increase ☐ the same ☐

Decrease ☐ there isn't any access ☐

10. What is your economic activity? Farmer ☐ trader ☐

Government employer ☐ other please (specify… _____

11. Is there any effect Internal Displacement on your life? Yes ☐ No ☐

12. The answer for question # 23 was yes what is there effect?

Cause for Loafer ☐ decrease income ☐ increase income ☐

Create work opportunity ☐ increase production ☐ other (specify._____

13. What is your current economic performance according to its measurement listed below?

Livelihood	**High**	**Medium**	**Low**	**Other (specify**
Income				
Consumption				
Wage				
Education	**High**	**Medium**	**Low**	**Other (specify.**
Loss year of schooling				
Class room capacity				
Environment	**Increase**	**The same**	**Decrease**	**Other (specify.**
Social and cultural life				
High exposure to hazards				
Exhaustion of natural resource				
Housing and infrastructure	**Improve**	**No change**	**Destruct**	**Others (specify.**
Access to basic infra-structure				
Increase rent in host area				

Security	Yes	No
Protection of internal Displaced person		
Gender based violence		
Loos of personal identification		
Health	**Yes**	**No**
Food insecurity		

Psychological trauma			
Health care capacity			

Part III: - Institution related information (focus group discussion)

1. What is the impact of internal displacement on government?

_____

_____

2. What is the government financial support to the community of origin, displaced and host community in the area?

_____

_____

3. Is there any governmental resolution to the problem facing to the displaced people?

Yes ☐ No ☐

4. If your answer is yes what and what?

_____

_____

Part IV: - General Opinion

1. Please mention all problems associated with internal displacement crises in your area_____

_____

2. Describe any social economic and environmental problems you have in the area_____

_____

3. Give your view as to what interventions must be made for better implementation of Resolving the problems.

_____

_____

4. Give your idea with regards to any positive and negative impacts and constraints of Internal Displacement on household economic performance in your area

_____

_____

5. Finally please mention remain question you have assume to include in the questionnaire?

_____

_____