

# **Ethiopian Economics Association (EEA)**



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## **PROCEEDINGS OF THE THIRD ANNUAL CONFERENCE ON THE EASTERN ETHIOPIA ECONOMIC DEVELOPMENT**

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## **FOREWORD**

The Ethiopian Economic Association (EEA) and its Dire Dawa, Haramaya and Jigjiga Chapters are happy to issue the proceeding of the Third Annual Regional Conference on the Eastern Ethiopia Economic Development which was organized on November 22, 2014 at Hamda Hotel Conference Hall, Jigjiga. EEA has been organizing this important conference, every year, as one of its objectives of broadening its activities and coverage at regional level so as to contribute to the economic advancement of regional state through enhancing economic policy formulation capability; the dissemination of economic research findings; promotion of dialogue on critical socio-economic issues; promotion of education in economics in higher learning institutions; enhancing national, continental and global networks of professionals and institutions; and advancement of the professional interests of its members.

The Annual Regional Conferences that the Association has organized in collaboration with its Chapters have created important forums for presenting and discussing development issues that are highly relevant to the Regional Socio-economy. These forums have also provided incentives for researchers to conduct research and present their findings on regular basis. Indeed, the Annual Regional conferences were organized in an interdisciplinary fashion, thereby widening the interactive coverage involving both economists living here in the region and those living outside the region and non-economists who are working and experiences on the region. The 3<sup>rd</sup> Third Annual Regional Conference on the Eastern Ethiopia Economic Development has contributed towards a deeper understanding of this part of the country and the complex challenges it faces. It attracted about 113 participants including members of Regional Parliament, higher officials and expertise from Somalia Regional State, Universities (Jigjiga University, Dire Dawa University and Haramaya University), NGOs, private sector representative and EEA members in the Eastern Ethiopia. The

participants of the conference expressed their satisfaction on the organization of the conference and the content of the papers presented. They reflected that the papers largely focused on local issue that can contribute to the development of the region. They also recommended that the issues raised in the discussion are critical that need due attention by policy makers and implementing organs of the regions.

The conference was officially opened by Ato Sultan Abdi Ali Shaga, Social and Economic Adviser to the President of Somalia Regional State. In his opening speech, he welcomed participants of the conference and thanked the Ethiopian Economics Association and its Jigjiga chapter for hosting and organizing this important conference. He underscored that the conference offers best opportunities for policy makers and researchers to understand in depth the complex challenges that the eastern part of the country has faced and enhances effective networking to synergize the efforts of like-minded individuals and institutions/organizations. He also expressed his appreciation of the Ethiopian Economics Association's significant and growing efforts in the spheres of economic policy research and capacity building through which it has been contributing to the sustained advancement of the economics profession and to the policy formulation and implementation process.

In this publication, all papers which were presented at the Third Annual Conference were reviewed by external reviewers and comments and suggestions including editorial comments were communicated to authors for improvement. Finally, those papers which passed all the review and editorial process published in the Proceeding of the Third Annual Conference on the Eastern Ethiopia Economic Development.

I would like to take this opportunity to express my heartfelt gratitude, on my own behalf and on behalf of the Ethiopian Economic Association, to the many people and organizations that made the conference resounding

success. First and foremost, I thank the authors of the papers and the audience whose active participations made the Conference meaningful. The staffs of the Economics Department of the Dire Dawa University, Haramaya University and Jigjiga University which runs the EEA Chapters at their respective universities and the staff of EEA Secretariat deserve a special recognition for their passion and perseverance in managing the conference from inception to completion.

Our special thanks go to our partners who have shared our vision and provided us with generous financial support to materialize the activities of EEA. These include; The Friedrich Ebert Stiftung of Germany, The African Capacity Building Foundation (ACBF) and The Think Tank Initiative of International Development Research Center (IDRC) of Canada.

Finally, I would like to extend my sincere gratitude to senior regional government officials from Dire Dawa City Administration, Somalie Regional State and Harari Regional State, who spared their busy schedule and participated in the conference.

A handwritten signature in black ink, enclosed within a hand-drawn oval. The signature is stylized and appears to be 'Alemayehu Seyoum Taffesse'.

Alemayehu Seyoum Taffesse (DPhil)  
President of the Ethiopian Economics Association



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# Socio-economic Implications of Norms, Values and Social Capital

Habtamu Girma<sup>1</sup>

## **Abstract**

*Those who have an experience of spending times within the Eastern Ethiopia communities easily understand that norms and values are powerful governing forces than conventional rules and principles. This paper tries to explain the reason behind inquires the nature, source and implications of asks why that is so; also it hypothesizes that the philosophy of life cherished in east is easy life style, as its adherents prefer to call. Such a life style conducts the behaviors of people by making them develop norms and values, which are characterized by three inter-related aspects. As such, people that value this life style: a) have a tendency to over-simplify things; b) lack the minimal patience and considerations required before decision making or acting; c) tries to avoid the negative aspects of their decisions. These three values further install into the community a social fabric that is ultimately designed to avoid risk or uncertainties in life. A social capital, which reveals itself in mutual help, interdependence and information flows is the pillar of the installed social fabric that define people`s material and spiritual wellbeing. That explains why norms, values and social capital are powerful forces that regulate the social and economic life in the communities of eastern Ethiopia. This paper further tries to make some inferences implied by these shared norms, values and social capital in the context of peoples` socio-economic life. This calls the academic circle and policy practitioners to consider these variables in their respective careers. In this regard, integrated and inter-disciplinary approach is relevant while conducting researches, or designing & implementing policy frameworks that aimed at enhancing the socio-economic wellbeing of the people.*

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## **1. Introduction**

What factors explain socio-economic development? Or what factors define the very existence of such an environment which is conducive to bring development? Interdependent variables such as socio-cultural, political, economic, demographic, geographical, sociological or etc. aspects contribute to explaining socio-economic development (McClelland, 1961). Many researches that are preoccupied with 'modern' thinking regard ritual practices related to local informal institutions as traditional and 'backward'. Hence, little attention has been given to understand a variety of rituals performed by local people. It is, however, impossible to thoroughly understand socio-economic setups without having insights into some of the local institutions and related rituals, which form some of the components of social capital (Degefe, 2009).

Ethiopia is endowed with diverse ethnic, language and cultural identities. Indigenous institutions particular to different communities have been governing the socio-economic and political life for generations. The importance of these variables to the well-being of communities is vital. These variables have to be an integral part of policies aimed at social and economic progress. Hence, it is expected from academicians and researchers to deal with these variables in a way that complements the conventional policy tools.

The implication of socio-cultural institutions to development has been unexplored in the context of Ethiopia. The existing few related researches are interested to look at the role of socio-cultural institutions instead of the livelihood of rural households (see Degefe, 2009; Tewedaj,2006) and community development endeavors, like their role in addressing the problem of HIV/AIDS (Selamawit, 2005), and soil conservation works (Mintiwab, Abebe, Zenebe and Liyusew, 2013).

Similar studies conducted so far in the context of eastern Ethiopian communities are too inclined to look at the role of social capital to examine households' food security (see Hassen, 2014; Ahmedin 2014; Ahmed, 2014).

Apart from the aforementioned dimensions, the importance of Socio-cultural institutions to development has another interesting dimension, where it explores how these institutions mould the behavior of people, which in turn implies to the socio-economic progress (see Sunste in 1997; Young 1998; Weiss and Fershtman 1998; Parakesh, 2002). Hence, it should be examined if these variables make people develop traits that are progressive or retrogressive. How these traits in turn shape people's decision making behavior in their social and economic transaction needs to be addressed. Such a view has got little empirical evidence in the context of Ethiopia in general and the Eastern Communities in particular. This paper is meant to fill this gap. By exploring the nature, roots, importance and implications of these institutions to socio-economic development, the paper calls for interdisciplinary studies to develop ways to best optimize the use of these resources to development. The paper further explains why policy practitioners and other agents working in the area of community development have to integrate socio-cultural institutions in their endeavors.

### **1.1 Objectives**

The general objective of this paper is to explore the nature, roots, importance and implications of norms, values and social capital in relation to the socio-economic life of the eastern Ethiopia communities.

#### **Specific Objectives:**

- Explore the governing philosophy of life (social, cultural, economic, political life) of inhabitants of Eastern Ethiopia.
- Examine whether the philosophy of life cherished help develop the most traits important for change and development like: personal

development, a sense of responsibility, planned life, efficient use of resources like time, money and other tangible and intangible resources.

- With a particular emphasis on the Somali communities, analyze how the social capital in eastern Ethiopian communities understood and managed.
- Discuss how norms, values and social capital affect the labor market and unemployment
- Invoke the wider intellectual circle and policy practitioners to give the necessary attention to these variables in their respective activities.

## **1.2 Sources of Information and Methodology**

### **1.2.1 Source of Information**

The paper used information from both primary and secondary sources. The primary sources are on interviews and personal observations from field visits in some communities (both urban and rural) within Eastern Ethiopia. People of different walks of life including business people, government employees, investors, elders, and community leaders were interviewed. Discussions with those who have rich experience about the area, academicians, and intellectuals who conducted studies in the communities added insights into the paper. Personal experiences were also a key source of information.

The secondary sources of information were, among others, review of related empirical studies, documents and reports of different projects and programs undertaken so far in the area,

### **1.2.2 Methodology**

In addressing the problem, the paper relied entirely on descriptive analysis technique. To consolidate issues raised a critical look into economic and sociological theories and related empirical evidences were referred to.

### **1.3 Limitations**

This paper is primarily developed for a panel discussion. Hence, points raised & analyzed may not fulfill strict procedures that formal research requires. Given the fact the explanations as to how socio-economic norms and values impact to development is subject to variation across different disciplines (like sociology, anthropology or other related studies). The readers have to understand that the discussions and explanations made in this paper is in the context of economics.

## **2. Literature Review**

### **2.1 Theoretical Review**

#### **2.1.1 What are Norms and Values?**

Social norms are established by the (positive or negative) values, beliefs, attitudes and behaviors that dominate across a community group. For example, social norms may mean going to school, getting a job, playing sports, respecting elders, etc. in a family and community, and maintaining a safe home environment (NSW/ACT, 2012).

#### **2.1.2 How different are Norms from Values?**

Although the distinction between norms and values looks prima facie intuitive, it is difficult to find clear and decisive criteria to distinguish between the two. Paradigmatic types of norms are duties, directives, moral norms, positive laws, rules regulating specific practices like games, reasoning and language, rules of etiquette and customs. Instances of values are goodness, intelligence, courage, injustice, inefficacy and awfulness (Sindzingre, 1999).

Philosophers have tried to distinguish properties distinctive to each domain. However, there is disagreement about whether the suggested criteria can provide sufficient conditions to distinguish each domain from the other. In his work entitled 'How to Distinguish Norms from Values', Fassio (2014) used various criteria to differentiate norms from values as depicted and summarized in the table below.

**Table 1: The difference between norms from values**

Specific Criteria	Norms	Values
Lexical differences.	Judgments about norms can be expressed by imperative claims (compare “it is forbidden to trample on the grass” and “don’t trample on the grass!”). This is not the case for judgments about values.	Terms expressing values are linked amongst themselves and organized around the general terms “good” and “bad”.
Psychological distinctions.	Norms don’t entertain so strict a relation with emotions. The notions of obligation and permission do not have corresponding notions in the domain of emotional states.	Values seem to be related to affective and emotional states. For example, admirability and shamefulness are connected to the emotions of admiration and shame.
Syntactical differences.	Judgments expressing norms often possess a logical form involving operators which take propositions or predicates (e.g., “it is forbidden [to trample on the grass], “it is obligatory that [drivers stop When the light is red]”).	On the contrary, normally evaluative concepts figure in judgments in a predicative position. Consider, for example, “the conduct of John is admirable” or “the film was boring”
Gradability.	Gradability is not the case for norms: there are no more or less permitted, forbidden or obligatory actions.	Gradability is a distinctive feature of values. Things can be more or less good, interesting or ugly.
Domain.	norms seem to bear uniquely on actions	Values range on every sort of entity (objects, actions, properties, states of affairs) while
Principles regulating norms.	Norms are committed to constraints bearing on the abilities that agents addressed by norms are supposed to possess. e.g if an agent is under some normative commitment, then she must be in the position to comply with such a commitment. More precisely, she must be in the position of freely choosing whether to conform to the norm or to violate it.	Values are not committed to principles. We can attribute values to things independently of any relation with human agency and human capacities, and we can attribute values to necessary and impossible things. It makes perfect sense to assess as beautiful a necessary law of mathematics or wishful the happening of an impossible fact.

*Source: Own Compilation based on Fassio (2014) p.197-202*

### **2.1.3 Norms and Institutions**

Institutions are the humanly devised constraints that structure political, economic, and social interactions. They consist of informal constraints (sanctions, taboos, customs, traditions, codes of conduct) and formal regulations (constitutions, laws, property rights). They take the form of regulations as well as ethical and behavioral norms. Regulations and norms can be either formal or informal, and they can have opposing or congruent goals and values. Social norms are standards of conduct, and they differ from cultural norms which are standards of belief based on ethical codes (Sindzingre, 1999).

### **2.1.3 Norms, Values and Socio-Economic Development**

Development can encourage norms that are efficient and more or less egalitarian vs discriminatory in their distributive implications. Norms can reflect the preferences of interest groups. They may or may not move towards improving social justice, as in the case of education where cultural norms frequently slow it down. Norms can regulate excesses of poverty or wealth, and help to reduce inequalities, and may also create discrimination and exclusion. Social norms can be either opportunities for, or obstacles to, well-being; legislation can in that case modify these norms if they diminish autonomy, for example, by discouraging individuals to educate themselves or to expose themselves to different concepts of good. Institutions facilitate collective action but also encourage the maintenance of the status quo. Individuals can follow norms from which they derive no benefit, and poverty can perpetuate passiveness and social withdrawal (Johnson 1997; Sunstein 1997; Young 1998; Weiss and Fershtman 1998).

### **2.1.4 Social Capital: Basic Issues**

In today`s world, while the global economic system continues to perform efficiently, social development does not. Economic growth is accompanied

by increasing poverty and inequalities worldwide. Too many people are marginalized by globalization. It also makes certain challenges more acute, such as managing immigration and refugee flows, combating environmental degradation and health problems (e.g. HIV/AIDS, Malaria, Ebola) and the possible increase of social and political deterioration. Therefore economic policies and strategies need to be revisited in that the individual should be at the centre of development, calling for sound economic policies aimed at social development and eradication of poverty. Today, there is broad agreement that economic development is embedded in social and political development. As a result, we are witnessing a burgeoning of interest in, inter alia, social capital and discussions about applications of the concept across sectors and disciplines (UNESCO, 2002, 7)

The term social capital is subject to many interpretations and definitions. Scholars define social capital in different contexts. According to Putnan (1993) social capital based on its values, says that societies that have values like generalized reciprocity are more efficient than a distrustful society. Accordingly, its benefits lie in its ability to facilitate collective action. For Fukuyama (2000), the norms provided by social capital promote cooperation between two or more individuals and when used for economic spheres, it reduces transactional costs. World Bank (2002) uses the concept in a similar way with those of informal institutions. According to the Banks development report such institutions compromise social norms or networks that supplement formal laws and institutions; where they work well, they can lower the costs and risk of economic transaction and spread the risks.

There are two aspects of social capital: cognitive and structural .The former is established and developed through the course of time and well entrenched into the customs and traditions of particular communities. Structural social capital on the other hand is an association established through defined rules and regulations that is supposed to govern members.



### **2.1.5 Social Capital and Conventional Capital**

Putnam defines social capital something divorced from capital, in the literal economic sense, stripped of power relations, and imbued with the assumption that social networks are win win relationships and that individual gains, interests, and profits are synonymous with group gains, interests and profits. For other social scientists, social capital is like other forms of physical capital in the sense economics understands it.

### **2.1.6 Approaches to Social Capital**

Social capital is a bundle of concepts rather than a single entity, which may be an advantage in that it is accessible through different disciplinary approaches and traditions. Social scientists have relied on three main approaches to social capital, by focusing on: a) elements of social structure and networks; b) the norms and attitudes of individuals; or c) local governance and political institutions. Each of these approaches has distinct advantages and limits.

According to the first approach, this is predominantly provoked by sociologists, so trust is endogenous to, or is generated within, social structures. Context counts critically to the social interactions that are at the heart of social capital. The second and the third approaches, which attract many political scientists and economists, consider social capital as interactions facilitated by the density of horizontal or egalitarian civic associations, and/or by specific qualities of political institutions and governance (Prakash, 2002)

## **2.2 Empirical Review**

### **2.2.1 Norms, Values, Social Capital and Socio-economic Development: (The Ethiopian Context)**

The essence of social capital may take different forms, for instance, enabling mountain farmers to deal with external shocks through risk-pooling (Rhoades 1988; Prakash 1997; Jodha 1993); in constituting common regimes for the collective management of local environmental resources, such as forests and water (Jodha 1986; Ostrom 1990; Bromley 1992), or constructing trans-local associations and social movements to protest against inappropriate and technocratic development (Prakash 1997; Bandyopadhyay and Shiva 1987; Agarwal and Narain 1989).

Despite its importance to socio-economic development, the topic of norms, values and social capital is far less investigated in the Ethiopian context. The existing literature on the issue is largely focuses on how they determine the livelihood of rural households (see Degefe, 2009; Tewedaj,2006) and other community development works, like their role in addressing the problem of HIV/AIDS (Selamawit, 2005), soil conservation works (Mintiwab, Abebe, Zenebe and Liyusew, 2013). All these studies conclude social capital as significant variable for socio-economic development.

In taking the best out of socio-cultural norms, values and the social capital, the academic circle, the policy practitioners and development agents have to consider these variables in their respective areas. Some responses from these different stakeholders in the context of the Somali Region are given below.

#### **2.2.1.1 Responses from the Empirical Studies**

The link between socio-cultural elements and socio-economic development is far less explored in the context of eastern Ethiopian communities. Hassen (2014) tries to integrate the social capital variable (taking community transfers through food gifts as a proxy variable to social capital) as one of

the determinants of household food security in the pastoral and agro pastoral communities in the Awbere district in Ethiopian Somali Regional State (ESRS). Its finding reveals that social capital positively and significantly determines food security at household level.

In his study entitled The determinants of household food insecurity in the case Erer district, Shinele zone of the Ethiopian Somali Regional State, Ahmedin (2014) hypothesized that the institution of social capital as one potential determinant among other conventional determinants. The study found out social capital, a significant determinant of household food insecurity, where households with better social capital are less likely to be food insecure.

Ahmed (2014) concludes that for the Somali communities the institution of social capital is key to the livelihood of pastoral communities. As such, it works like the modern credit card system ensuring households from uncertainties of life that poses a threat to their food security. Most importantly, the prevailing social capital fits the socio-cultural context to Somali communities. Given the Somalis are socio-culturally organised on to clan basis, where the clan organisation sets rules and regulations that help a smooth socio-economic order, the social capital facilitates the dissemination and execution of these rules and regulations.

Socio-cultural norms, values and social capital have interesting implication for socio-economic progress as they shape the behaviors of people. These variables largely affect development by implicating on people`s outlooks and perceptions like: punctuality, personal development, a sense of responsibility, planned life, work spirits, innovativeness, efficient use of resources like time and money. Such an outlook is far less explored in the empirical studies.

Referring to Eastern Ethiopia communities, this paper tries to explain the possible links between socio-cultural norms, values & social capital and development. Also, it sheds light on the importance of integrating the variables in their respective endeavors so that they could be important ingredients as well as facilitators of development.

#### **2.2.1.2 Response from the Policy Practitioners and other Development Partners**

There are very limited efforts so far in integrating norms, values and social capital in development endeavors and policy frame works. Initiatives to inscribe these assets in endeavors that would enhance the people's wellbeing is forwarded in section 4.1

### **3. Norms, Values and Social Capital: Case of Eastern Ethiopia Communities**

#### **3.1 Nature, Source and Implications of Norms and Values**

There are two distinct instances where values are understood: ethical values (normative level) which the social sciences may adopt vis-à-vis poverty and societal values (descriptive level), which are diverse but include the minimum, universal and ethical principles (Sindizingre, 2001). In this paper, values are understood as in the latter sense. There are bulks of evidences in the literature that norms, values and social capital can be developmental or counter developmental. In this part, the positive and negative implications of the prevailing norms, values and social capital in connection with socio-economic development of eastern Ethiopia communities is addressed.

##### **3.1.1 The Governing Philosophy of Life in Eastern Ethiopia**

Social norms and values differ from community to community and family to family (NSW/ACT, 2012: p 42). As there prevails varied norms and values

across different communities within eastern Ethiopia, still there are norms and values commonly shared by all. Those shared norms and values are simply manifestations of the common philosophy of life cherished by people. The governing principle of life for many people in eastern Ethiopia could be expressed as follows:

- There is a sense of over-simplifying things and decision is taken accordingly.
- People do not have patience and interest to critically evaluate issues before making decisions.
- People are less interested to hear or see the negative aspects of their decisions

The three interrelated traits (norms and values and social capital) pinpointed in the previous paragraph in turn makes people develop traits of risk aversion. To that end, the communities designs and establish a social fabric that produces a shield from all uncertainties of life. This explains the genesis of a social capital, which manifests itself in mutual help, trust and fast flow of information, which in fact fits the nature of social capital prevailing among eastern Ethiopian communities.

### **3.2 Socio-Economic Implications of Norms, Values and Social Capital.**

This part explores if the commonly shared norms, values and social capital among the eastern Ethiopia communities could be positive or dysfunctional in relation to socio-economic development. Whereas the positive aspects are forwarded in the first part, the second part highlights some negative implications of norms, values and social capital.

#### **3.2.1 Some Positive Aspects of Norms, Values and Social Capital**

##### **3.2.1.1 *Facilitates Community Development Endeavors***

The role of social capital for community development is stated in many empirical studies (see Puntam, 2000; DeFillipis, 2001). The existing fast flow

of information, mutual trust and cooperation is key facilitator of community development works undertaken by the regional government and other non-governmental development partners. This is observed in different programs aimed at soil and water conservation programs, livelihood development interventions (like the Disaster DRR, animal and human health development programs).

**BOX-ONE**

***Social Capital: Key Ingredient for Community Development***

*"I am one of the DRR-LR program beneficiaries. The existing good interrelationship and mutual help among the beneficiaries and others is key aspect of the success recorded particularly in soil conservation and water development works, which are among the packages of the DRR-LR program that I am participating".*

Ali Mohammed Aden, DRR-LR beneficiary from Kebribeyah District

**3.2.1.2 Brings about Social Harmony**

The virtue of good communication and tolerance is to bring about harmony. A sense of togetherness and rich social life is a solution to many with economic, psychological or any other social problems.

**3.2.1.3 Income Inequality and Related Social Evils are less likely to Prevail**

Socio-cultural institutions have great importance in poverty reduction, guaranteeing a just economic order, and more democratic society (see UNICEF, 2002).

The prevailing norms and values in eastern communities endow a sense of trust and togetherness among people. Such institutions allow little room for class differences and income inequality. In such an environment social evils like robbery and other crimes are less likely to prevail. As such, norms, values and social capital can be key ingredients of development.

#### **3.2.1.4 Facilitates Business Activities**

For many who are engaged in the business, the prevailing social capital, which manifests in trusts and information flows, is a key resource that they do not want to lose to stay successful in business. Huge sums of money changes hands between business people. For business people in need of funds but cannot access or are not qualified for banking services, it is their social capital that helps relieve their financial bottlenecks. Check box (2) is a note from one business man from the city of Jigjiga, telling how social capital is important to be successful.

##### **BOX-TWO**

##### ***Social Capital: As a Collateral for Borrowers***

*"I have been in trading activities for more than a decade. Throughout my career, I borrowed from and lend to my fellow traders from a few hundreds to hundreds of thousands of Birr. It is usual that those in the trading business have such a trust that they not only share finances, but also key information about the market too. In all that, our collateral is our social capital."*

*Binyam, a trader in the city of Jigjiga*

#### **3.2.1.5 Facilitates Public Sector Works**

The prevailing norms, values and social capital are important resources that could be used to facilitate government sector works. The stock of social capital in east, which is manifested in fast flow of information, is

instrumental in facilitating government services that highly require public participation, like in policing, community development works, making the public sector to be transparent and accountable. Although this resource is not tapped to its potential, there are some initiatives to integrate these resources in public sector works, as established in the box below.

### **BOX-THREE**

#### **Social Capital and Public Sector**

*The Somali Regional state (ESRS) Bureau of Finance and Economic Development (BOFED) tried to optimize the prevailing social capital and norms of cooperation in a bid to live by one of its obligations, which is working for transparency in budget administration. The bureau designed a scheme that could fit the contexts of pastoral and agro-pastoral areas. In those areas where conventional communication networks are hard to reach the communities, one public figure in the locality would be in charge of leading the task of disseminating the local government's annual budget and how the budget would be allocated to the wider public. The existing strong social ties and links facilitate for the information to easily reach the community members. One interesting issue of the scheme is that the allocated budget is depicted on the camel's body, so that pastoralists and agro-pastoralists could get the information as far as the camels destination.*

### **3.3 Some Negative Aspects of Norms, Values and Social Capital**

#### **3.3.1 Makes People Develop Dysfunctional Outlooks**

It is also imperative to see norms and values and social capital from another dimension: the possibilities that they impede socio-economic progress. One possible way is that the prevailing norms and values could lead people develop a psychology of not looking for the definite knowledge of the results of their choices. According to McClelland (1961) People develop such a psychology because "Such knowledge is a source of anxiety because



it provides not proof of success but also clear evidence of failure” (page 99).

To be specific, these norms and values could:

- a) Affect people`s traits like desire for personal development, a sense of responsibility, planned life, vision and hope.
- b) Make people develop outlooks that lead to inefficient use of resources like time, money and others
- c) Negatively affect the work spirit of labor force
- d) Affect the innovative and risk-taking behaviors, the two most important elements of entrepreneurship

As in the case of norms and values, there are instances where social capital may end up counter-productive. When social capital is used as an input to development, we need to establish optimal dosage in the same way conventional production function establishes for optimal mix of physical capital with other inputs of production. Once that is established we can bring about efficiency and productivity with social capital. Otherwise, social capital would end up counter-productive as pointed out here under:-

Misuse of social capital may result in over-dependence among people, and may damage their work spirit

Over use of social capital may damage the minimal level of individualism and hence deprives people freedom and power to decide in their personal or economic life.

### **3.3.2 Distorts the Product Market**

Behavior to avoid the negative aspects of a decision do not fit a rational assumption, which considers people have to make calculations- computing the gains and losses- before a decision in economic transactions is made . The ill defined Simple life style may affect the proper functioning of a market and of business activities and hence damages the proper market structure. This is because people take little bargaining for prices while engaged in market transactions which open a door for opportunist business

men to make wider profit margins by inflating prices and delivering sub-standard products. Overall, the market fails and hence market distortion is created.

Where such behavior of people prevails, fixing the market failure is difficult. Consumer protection policies, like price control, price subsidies, quality and standard requirements would fail as people are likely to be less active in the process of implementing the policies.

#### BOX-FOUR

**Social Capital: Abused or Optimized?** “Even if social capital has many positives towards enhancing the welfare of people, it does also have negative consequences over workmanship and productivity of the labor forces. This has a particular nature in urban areas. There are people who are able to work but are unable and make their livings simply by abusing their social capital, in a sense that makes them entirely dependent on the help of others. The thing is quite different in pastoral and agro-pastoral communities, where social capital is in many respects is used productively. The interdependence of rural households is a key resource that helps them escape risks of food shortage, among others.”

*Hussein, resident of Jigjiga city*

#### 3.3.3 Distorts the labor market

The philosophy cherished in eastern Ethiopia is likely to erode patience and spiritual strength to bear the challenges associated with work. People would avoid works that require higher physical and mental exertions and more attracted to occupations with minimal pain (lower risk and which require little effort). Such a case results in mismatch of labor demand and supply in particular sectors, making excessive labor supply in less painful jobs and shortage of labor in laborious and technical jobs.

The over-inter-dependence implied by the social capital could change the perception of people on work too. Even if unemployed, they feel employed, i.e, they do not accept that they are really unemployed, hence little participation in the labor market. The end result is that the Wage mechanism in the labor market might not hold, and hence labor market distortions are created.

#### **3.3.4 Labor Productivity**

In addressing issues related to production and productivity what comes first is quality of the labor force. Beyond the conventional factors like skill and training, there are divergent elements that influence the quality of labor. Traits like industrious mentality, innovative minds, readiness of work forces to be governed by ethics and discipline that a particular work requires are important variables greatly affecting the quality of labor. The ill defined simple life style would ultimately make people ignorant of these essentials of labor, which in turn goes against production and productivity.

#### **BOX-FIVE**

##### ***Corrupt Norms and Values Corrupt the Goods Market***

*“Here the people are not interested to bargain for quality and prices of goods. This is an opportunity for many business men and traders; they can make prices as they please. That is why (not to forget some other reasons too) you may find frequent non-reasonable price increases. I observe price and quality control interventions by the government do not hold, which I can say, is because the community participation is loose, making the implementation of those measures difficult.”*

*Ahmed, resident of Jigjiga City  
Tewodros, resident in the city of Jigjia*

### **3.3.5 Unemployment**

The over-inter-dependence of people coupled with the ill understood easy life kills the work spirit and industriousness of working hands. Moreover, employment policies aimed at tackling unemployment via skill development and filling financial gaps of work forces would likely be less effective. This is because people are less likely to tap the opportunities for employment and job creation, like availability of credit, technical training and other capacity building schemes provided by the government and other developmental agents.

### **3.3.6 Affects Entrepreneurial Efforts**

Risk taking behavior being a key element of entrepreneurship, the prevailing norms and values in eastern Ethiopia communities makes people develop traits to be risk averse. This makes entrepreneur minds to be scarce. Biased understanding of social capital can go to the extent of depriving the minimum freedom and power business people needs to possess in their business decisions.

### **3.3.7 Principal-agent problem**

Work ethics and discipline are the most important aspects in production and productivity. Value for time is important here. Mis-understanding of social capital and the adverse effects of the ill defined easy life style can damage the employer-employee relationships by promoting free-ridership. Punctuality, readiness to be governed by work rules and regulations are likely to be scarce while free ridership and shirking behaviors are in abundance, which in turn damage production and productivity.

**BOX SIX**

***An Investor Unable to Get Disciplined Labor Force***

*I am an investor engaged in commercial farming in the Shebelle River basin. Currently I cultivate peanuts on 70 hectares of land, and harvesting my produces. The regional investment bureau and other regional officials were very helpful; the biggest challenge for me was nothing but finding dedicated labor force. There are too many people unemployed around but many of them are unwilling to work, and the existing few who are willing to supply their labor are ill disciplined, with poor working mentality and less determination to work according to their contracts. Once they get their wages, they quit their job and go to the towns, spend their earning on Khat and entertainment, and the next day you see them desperately standing looking for a job. Hence, it was too challenging for me to proceed with harvesting works with these workers that I decided to bring 20 laborers forces from Babile area (Eastern Harerghe. to complete harvesting of my produces. Even if it is costly to do so, this is what I have to do. In the next harvesting season I am planning to have laborers from South Ethiopia, where I think I can get disciplined and dedicated labor.*

*Genene, Commercial farm owner and manager*

**3.3.8 Waste of Productive Resources**

A philosophy to avoid the negative consequences of decision implied by ill defined easy life style would make people deny the value of economic resources, like money or time. Hence waste of productive resources is inevitable.

**3.3.8.1 Low Value for Time**

Time is the most important resource that seeks wise utilization if to be efficient in production. Where punctuality is not cherished production and productivity would be compromised.

**BOX-SEVEN**

***Norms and Personal Development***

*“I was born, raised, educated in Jigjiga. I have also experiences in Harar and Dire Dawa. In the east few are ready to read. Even those who are well educated are rather attracted to entertainments. I believe such society cannot thrive.”*

*Discussion with Gossa, Resident of City of Jigjiga*

**3.3.8.2 Low saving culture**

When the governing principle is little plan and a tendency to live entirely for the sake of today, little importance is given to such traits like saving money and other resources. Such a life style may give temporary relief, but would never bring lasting happiness. Rather, it erodes the hopes and vision of people, which in turn damage the work spirit of people.

**3.3.9 Personal Development**

People celebrating easy life style in its biased form often spend much of their time, energy and resources for entertainment. This largely compromises resources that would otherwise be invested to develop oneself, making the skills and know-how of people lag behind the level the time requires. Such a case would go against policies aimed at enhancing quality of labor and make them to be ineffective.

**3.3.10 Social Transactions**

The values and norms of easterners, which manifest themselves in the way of life people cherish has a number of implications for social transactions of people. That in turn affects the economic life of people indirectly. The

norms cherished by people among easterners in their worst case may create negligent minds, making people feel secured, when they are totally insecure. People are not inward-looking; they are rather outward looking guided by implosion (look inside) they will be guided by explosion (look outside) Hence, rather than develop the mentality of commitments to face and react to problems, people tend to develop adaptation mechanism. In such a community where people try to externalize their weaknesses interventions to tackle any socio-economic problems are less likely to be fruitful, which lead communities to poverty.

#### **4. Conclusions and Policy Implications**

##### **4.1 Conclusion**

- Norms and values of easterners is built on the philosophy of easy life style, which manifests itself in cooperation, tolerance and open communications
- Social capital is not the same among urban and rural communities, having differences in terms of nature, dimension and importance.
- So far as optimizing of social capital is concerned, there are differences among urban and rural people.
- Policy interventions to promote socio-economic status of people (employment policies, community development programs or others) that fail to consider and integrate socio-cultural contexts of communities may remain impotent.
- So far, very little effort was made to integrate norms, values and social capital in developmental endeavors in the communities of eastern Ethiopia.
- Little or no academic and research interest on the topic has been shown despite its profound implications for socio-economic development

## 4.2 Implications

### 4.2.1 Implications to Academic and Research Community

Before exploring any topics on development in the communities of eastern Ethiopia or making any policy intervention meant to enhance the socio-economic status of the people there, it is wise to question and analyze the traits that influence the social, economic and political life of people. In this regard, academicians and researchers are expected to:

- Explore and identify progressive and retrogressive aspects of socio-cultural norms, values and social capital in relation to socio-economic development.
- Investigate the possible channels that these traits, norms, and values impact the developmental endeavors.
- Scientifically investigate how these socio-cultural elements define the whole sets of life, be it social, economic or political.
- Show the importance of these variables in complementing key developmental policies.
  - For example, before studying the financial sector development in the region, it would be wise to explore issues related to saving. Before addressing topics related to banking and finances looking into the perceptions of people on the issue is relevant. Hence asking
    - ✚ How saving is perceived by the community,
    - ✚ whether people values of entrepreneurial mentalities such as traits to take risks, value for time, value for money, and
    - ✚ If the norms and values that people cherish bring about diligence and innovative mentality.
  - Before practicing policy interventions meant to tackle unemployment, it would be appropriate to investigate whether:
    - ✚ unemployment is really the problem of that particular community. In this regard, it is wise to ask if the people who are



actually unemployed accept that they are really unemployed or they feel they are employed.

- ✚ unemployment arises really because of lack of opportunities Or find out if people ready to take opportunities around like availability of credit, technical training and others availed by the government and other developmental agents.
- ✚ those in the working age group show patience and are capable of bearing the challenges associated with work.

#### **4.2.2 Implications to Policy Practitioners and Development Partners**

- The government and policy practitioners are expected to give the necessary minimal recognition, legitimacy, and rights to organize that allow them to represent the collective interests of poor communities; where that is not done, policy actors are unlikely to be considered trustworthy enough by the poor to do much more.
- Government and other agents of development should encourage and commit resources towards research and developments on the topic.
- While policies that encourage progressive and positive aspects of socio-cultural norms, values and social capital are necessary, deliberate interventions are needed in weeding out the retrogressive dimensions of these variables.

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# Major Features of Climatic Variability and Livelihood Diversification Strategies around Dried Lake Haramaya, Hararghe Highlands, Ethiopia

Solomon Tekalign<sup>1</sup>

## Abstract

*Climate change and variability is one of the most challenging environmental stresses affecting set of activities in many developing countries of the world. The impacts of climate change/variability are severe in developing countries like Ethiopia, where rain-fed agricultural production is predominant. Due to either of numerous cases, the degradation of Haramaya Lake water in the Hararghe highlands in the last decade is one of such evidences. This study is aimed to identify major features of climate variability, livelihood diversification and livelihood strategies devised by the community in the sub-catchment of the Dried Lake Haramaya. Primary and secondary data collection methods are used and descriptive analysis methods including coefficient of variation; Simpson index; means and deviations of monthly, annual and decadal records as well as variability status. The findings of this study indicated that there were 5dry and 7wet from 1952 through 2012. This sub-catchment received highest decadal mean rainfall (c.800mm) from 1997 to 2006, while the lowest (c.756mm) from 1977 to 1986. There was bimodal rainfall distribution with high mean monthly records in five months (AMJIAS) and relatively low in six months (ONDJF). June was the dry spell situated amid the rainy periods. The common dry seasons are spring and winter while summer and parts of autumn were the wettest seasons. Despite this fact, there is insignificant change as the trend chart is  $R < 0.5$ . The total temperature variability from the last 46years (1965 to 2011) is computed as  $0.98^{\circ}\text{C}$ . Moreover, there seems significant rise in decadal mean temperature as  $R = 0.87$  while the cooling of December is  $8.9^{\circ}\text{C}$*

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*(which was 12<sup>o</sup>C reported a decade ago). There is also perception among the local community that the cooling increased following the drying of Haramaya Lake. About 77%, 74%, 59 and 53% of the sample households perceived shortage of irrigation and drinking water; climate variability; soil & water erosion; and land degradation as major environmental challenges. Therefore, the lion's share of the sample respondents in Damota and Tuji Gabisa completely diversified their livelihood. Despite this fact, only below quarter of them diversified to off-farm and non-farm activities. This implies the need for integrated and multidisciplinary interventions by stakeholders for both sustainable resource habilitation and sustainable livelihood development in the watershed of Dried Lake Haramaya.*

**Key Words:** Climate Variability, Lake Haramaya, Livelihood Diversification Strategy

## **1. Introduction**

Climate change and variability (CCV) is one of the most challenging environmental stresses affecting a set of activities (Valdivia & Quiroz 2003). It has compounded the problem of food insecurity and continued to emerge as a serious challenge to poverty reduction and development of many developing countries of the world (Lyimo & Kangalawe 2010). As entirely dependent on the quality of rainy seasons, African agriculture has become particularly vulnerable to CCV and increased droughts that affected food security in the southern and horn of Africa (IPCC 2001 cited in Lyimo & Kangalawe 2010). The impacts of CCV are severe in countries like Ethiopia where rain-fed agricultural production system is predominant. Nowadays, the effects of CCV are also highly sensed by farmers directly through its impacts on agricultural inputs and indirectly by influencing the emergence and distribution of crop pests and livestock diseases, exacerbating frequency and distribution of adverse weather conditions, reducing water supplies and irrigation, and enhancing severity of soil erosion (Deschenes & Greenstone 2006, Watson et al, 1998 & IPCC 2001 cited in Abate 2009).

The erratic and declining pattern in mean annual rainfall for the region adversely affect crop cultivation. Climate risks, particularly droughts, and economic fluctuations make rural households vulnerable to serious hardships and shocks in Ethiopia (Dercon 1999). Ethiopia is among the known for low agricultural production and productivity that gradually facilitates irreversible degradation of farmlands (Tilahun et. al, 2011; NMA 2007 cited in Aklilu & Dereje 2010).

Recurrent droughts have been a major issue in the history of Ethiopia. However, Ethiopia has changed very little in its farming activities over decades (Ayalneh 2002). The Hararghe highlands are among those where the incidence of crop failure is repeatedly reported (Bezuayehu et al, 2002). The Dried Lake Haramaya is one of the sub-catchments of these highlands where complete denudation of lake water was evident. This in turn affected the livelihood of the community that enforced them for different strategies to sustain life. Numerous studies were conducted along the sub-catchment (Brook 2011; Mohammed 2011; Edo 2009; Geletu 2006; Wagari 2005; Tesfaye 2003; Solomon 2002; Ayalneh 2002). Unlike them, this study focused to fill the gap on major features of climate variability and livelihood strategies around the Lake.

## **2. Objectives and Hypothesis**

The major objective of this study is to identify major features of climate variability, status of livelihood diversification and strategies in the sub catchment of the Dried Lake Haramaya. The specific objectives are to identify monthly, seasonal and decadal variability in temperature and rainfall; to assess major environmental challenges and to assess the status of livelihood diversification and strategies devised by the community around the area. Based on this, the following hypotheses are designed:

- a) There is significant change in the trend of rainfall in the last decades.
- b) There is significant change in the trend of temperature in the last decades.
- c) There is complete livelihood diversification in the livelihood of the community.

### **3. Research Methodology**

Lake Haramaya is one of the numerous highland lakes in the Hararghe highlands that are dried up due to numerous natural and human induced factors. This lake is purposively selected based on its accessibility, the availability of meteorological station within the sub-catchment, evident challenges in the livelihood after the last decade following degradation of Lake Water, as well as different strategies designed by the community to sustain life within their premises. The respondents were selected from two adjacent peasant associations: namely Tuji Gabisa and Damota. Mixed research design, including of both qualitative and quantitative methods, was employed. The primary data sources were questionnaire, key informant interviews, focus group discussions (FGDs), and field observations. About 136 sample households (SHHs) were selected using stratified multistage cluster sampling for questionnaire while 10 FGDs, numerous key informants interview, and frequent field observations were used to triangulate the basic responses. Moreover, temperature and rainfall data from 1957 through 2012 were obtained from the National Meteorological Service Agency (NMSA) of Ethiopia for determination of mean monthly, seasonal, annual and decadal trends and variability of climate. Simple book keeping mathematics, mean, average deviation, standard deviation, and coefficient of variation (cv) were computed to determine relative variability and deviations in the monthly, seasonal, annual, and decadal rainfall and temperature. Particularly, the cv is preferred to examine relative variability in rainfall for its relatively stable, constant and ease to remember (Strahler and Strahler 1997; Snedecor and



Cochran 1989). Simpson Index (S.I.) was used to assess the level of livelihood diversification. Statistical reports, published and unpublished documents, and archives from numerous public and private institutions were consulted to supplement primary data. Data was collected from September 2011 to June 2012.

## 4. Results and Discussion

### 4.1 Profile of Lake Haramaya

Lake Haramaya is astronomically located from 9°22'03" to 9°27'12"N Latitudes and 41°58'14" to 42°05'26"E Longitudes (Figure 1). The formation of Lake Haramaya is related with marine transgression in the region that occurred from Late Triassic to Early Cretaceous, approximately 225 to 100million years ago. The landform genesis are of structural in the upslope and residual in the depressions, and contains moderate to high relief hills and undulating to rolling high plateau (MOA/FAO/UNDP 1983).

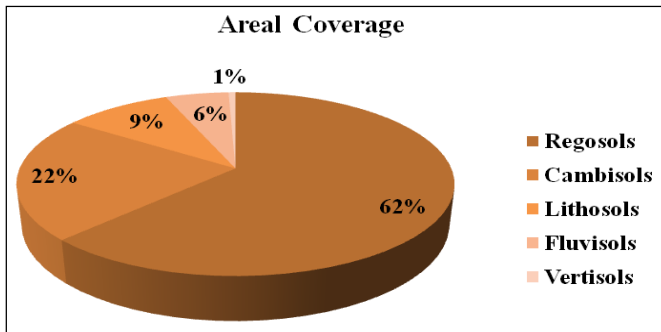
**Figure 1: Location Map of Dried Lake Haramaya**



Source: Adopted from Bobe (2004)

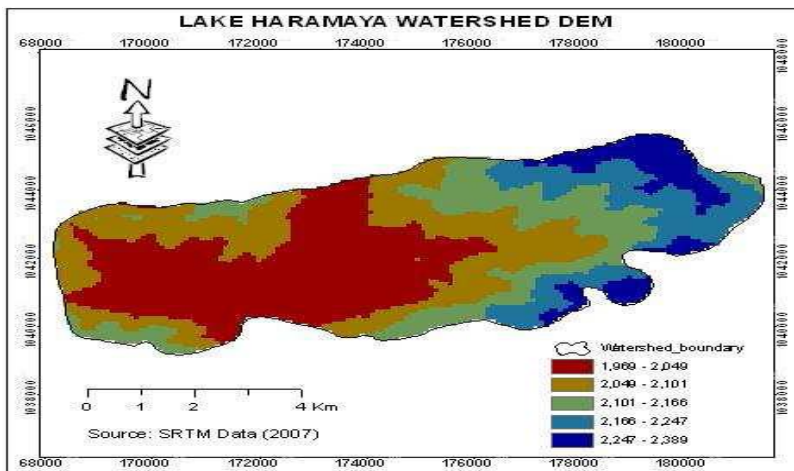
The parent material consists of felsic Precambrian basement (gneisses, granites, etc) and recent Mesozoic deposits predominated by limestone, sandstone and calcareous (MOA/FAO/UNDP 1984). There are exposures of granites, genesis and mica schist especially along the steeper slopes. Six major types of soils are predominant including Lithosols, Regosols, Cambisols, Fluvisols, Entisols and Vertisols are identified (Hawando 1982; Figure 2), of which Regosols and Cambisols are generally poor in fertility due to intensive cultivation, mono-cropping, complete removal of crop residue, inadequate applications of mineral fertilizers, etc.

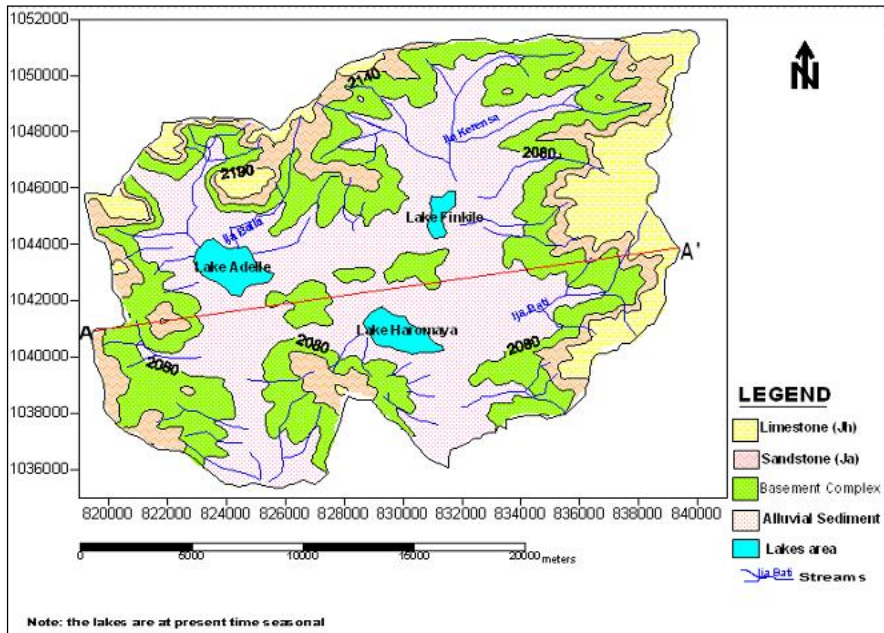
Figure 2: Major Soils Types



Source: Extracted from Solomon (2002)

Figure 3: Altitude and Surface Geological Map

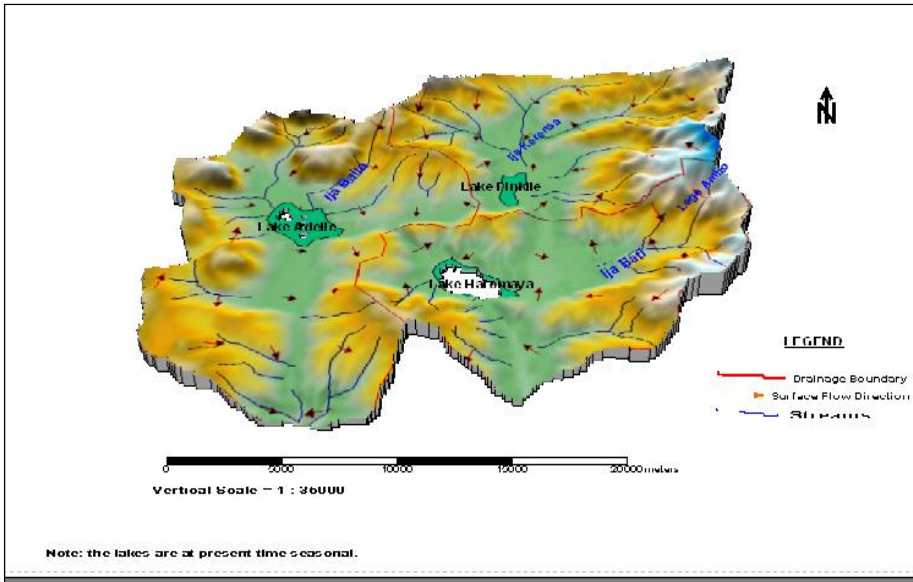




Source: Edo (2009) and Geletu (2006); NB: Altitude Map (left) and Surface Geology Map (right)

Lake Haramaya is a sub-catchment within a group of lakes in the Hararghe highlands and it is also categorized as one of the major wetlands in Ethiopia (Afewerk 2005; Figure 3). During past time, it had over 10miles width and 30feet deep in places (Stuteville 2008). In mid-1980s, the maximum depth of the then lake was 26feet with 1.8sq.miles of area (BLI 2010). Its total catchment was about 19.3sq.miles of area with altitude ranging from 1850masl at lake-floor to 2422masl at Gara-Damota upslope (Fekadu 2005; Figure 3). Based on the drainage network, there are nine sub-catchments: namely, Damota, Keressa, Tuji, Gebissa, Haji, Gode, Mude, Guba, and Selama. The Damota sub-catchment is the largest that drains more than half of the catchment (2935ha) from where runoffs through seasonal streams (like Ifa Bate and Laga Ambo) drain and often cause floods especially during the rainy seasons (Figure 4).

Figure 4: Drainage Map of Surface and Ground Water



Source: Geletu (2006)

The sub-catchment falls under woina dega (semi-humid) climatic zone, with bimodal rainfall pattern of distribution, occurring during the belg (first, small and short rain season: MAM) and the meher (second, big, long rain and the main growing season: JJIAS). Maximum precipitation occurs in three months (AAS) while five months are with little/no precipitation (ONDJF) (see Figure 5). The natural vegetation climax (Figure 5) has been completely removed for agriculture, settlement, construction, etc and yet there are patches of eucalyptus tree species along farms, homesteads, roads and streams (Brook 2011; Mohammed 2011; Wakgari 2005).

The study area is one of the most intensive crop cultivation areas in the Hararghe highlands. The major types of crops cultivated in the area include sorghum (*Sorghum bicolor* L.) mixed with maize (*Zea mays*, L.), and horse bean (*Vicia faba*), sweet potato (*Ipomoea arabica* L.), various horticultural crops and vegetables (cabbage, lettuce, onion, beets and carrots) and a woody stimulant species, chat (*Catha edulis*) and vegetables (Mohammed

2011; Tesfaye 2003; Westphal 1975). Vegetables and chat are produced for both local consumption in the nearby urban areas (like Haramaya, Aweday, Harar, Dire Dawa and Jigjiga) and for export to neighboring countries like Somalia and Djibouti as well as to the Middle East, Europe, North America, etc.

**Figure 5: Preexisting Feature of Vegetation along Lake Haramaya**



*Source: Adopted from Wakgari (2005)*

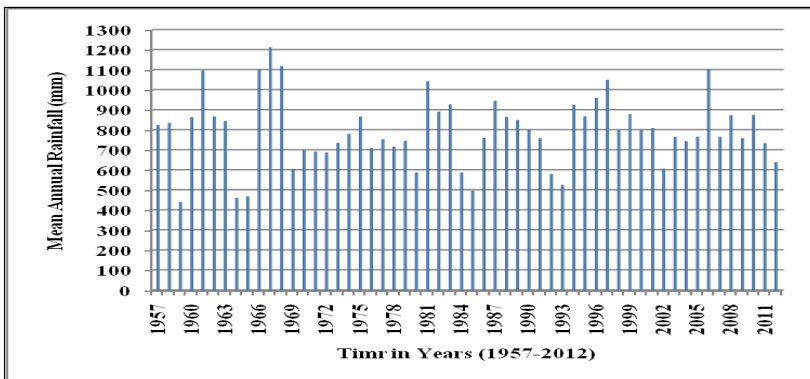
#### **4.2 Climate Pattern and Variability**

Rainfall Distribution: Rainfall over a sequence of years is affected among others by the sun's declination cycle that can be detected from the cycles of monthly precipitation and the cycles based on decades (Strahler and Strahler, 1997). So, the annual mean based on mean monthly rainfall (Figure 5a) and the decadal mean (Figure 6b) shows that there are fluctuations in the distribution of rainfall in the area.

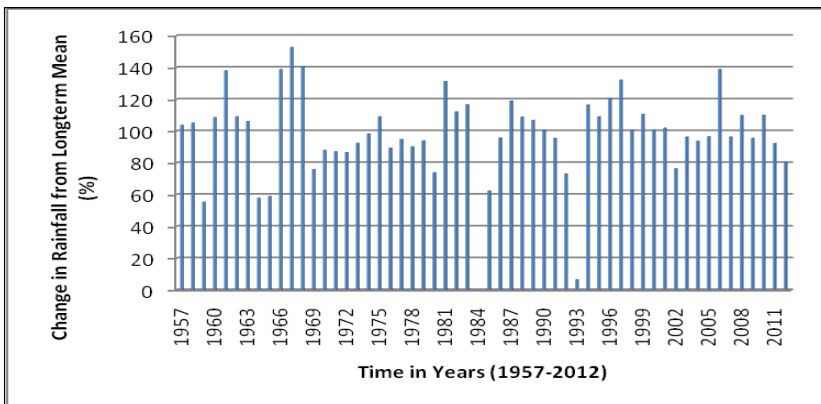
Accordingly, the aggregate mean annual rainfall of the sub-catchment from 1957 to 2012 was 794.71mm. About 43% (24/56) of the years obtained above the longterm mean annual rainfall (Figure 5a & 5b) showing over

100% rainfall fluctuation. However, it is almost absent (i.e.c. 0%) during 1984 and 1993 (Figure 5b). The linear trend equation and its  $R^2$  values also indicate almost uniform trend of rainfall distribution with no significant increase in the mean annual rainfall in the dried Lake Haramaya area over the last half century (Figure 5c).

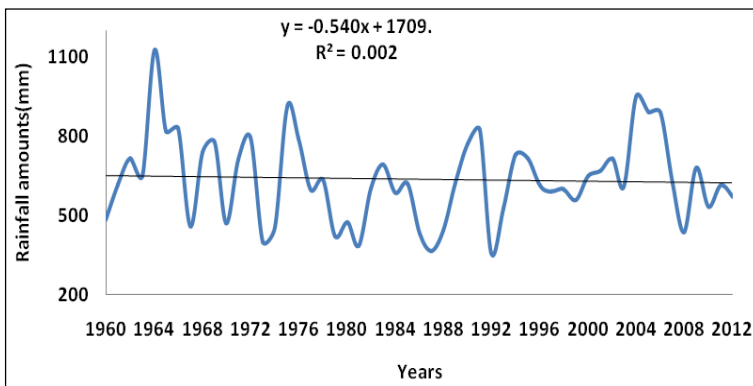
**Figure 5a: Distribution of Mean Annual Rainfall at Haramaya (1957-2012)**



**Figure 5b: Rainfall Fluctuations for Haramaya Station (% of departure from longterm mean)**

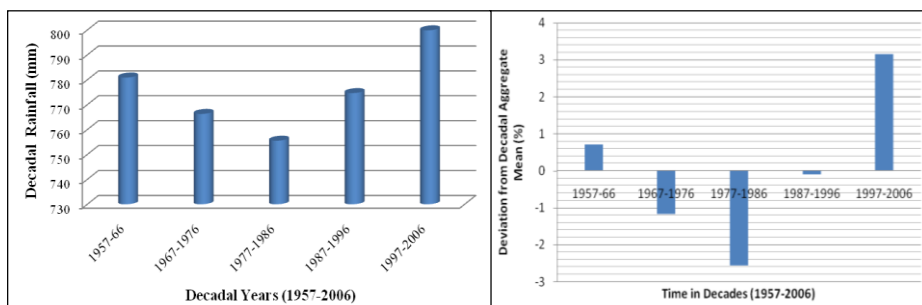


**Figure 5c: Rainfall Trends at Haramaya**



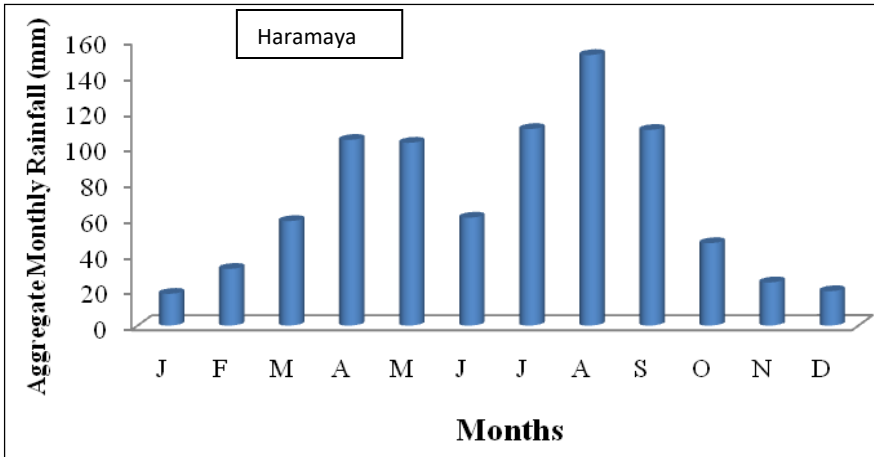
The aggregate decadal mean rainfall was 775mm. It received the highest decadal mean rainfall of about 800mm (in the last decade 1997-2006) while it is the lowest (756mm) from 1977 to 1986) followed by the 1967 to 1976 (766.3mm, Figure 6a). The lowest decadal mean seems in congruent with the occurrence of drought in the mid 1970s and 1980s in the country. The aggregate mean distribution of both the monthly and decadal rainfall seems similar as there is bimodal rainfall distribution. It is relatively high for five months (AMJIAS) and relatively low record for the other six months (ONDJF), which were known for relatively low record of rainfall but June is the dry spell situated amid the rainy periods (Figure 6b).

**Figure 6a: Pattern (Left) and Deviaion (Right) of Decadal Rainfall from Decadal Mean**





**Figure 6b: Aggregate Monthly and Decadal Rainfall Distribution**



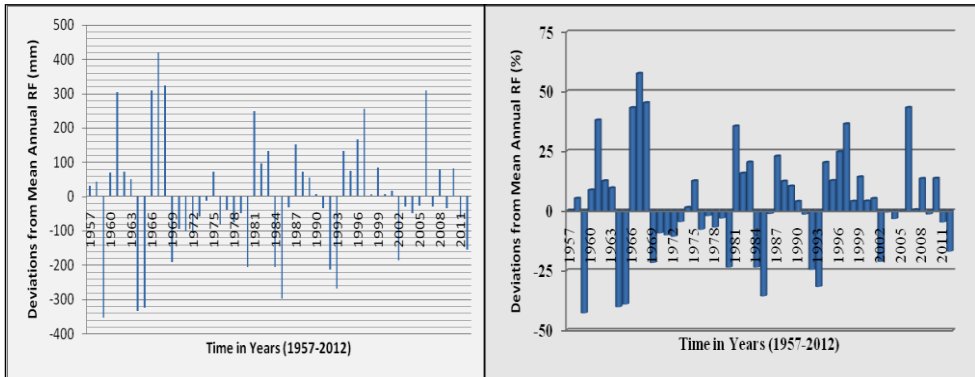
Source: Extracted based on data from NMSA

Rainfall Variability: After fluctuation and deviations, the other measure of rainfall variability is examined by taking the average deviation of each yearly value from the mean value (Strahler and Strahler 1997). In an area which is dominated by rain-fed agricultural system, rainfall variability is very important to demarcate rainfall distribution over a given period of time and for proper remedial interventions (Solomon 2013). In most cases, there is variation between the actual annual total and the statistical annual average that is identified using simple booking mathematics of the percentages of actual annual rainfall and the statistical annual average (normal) for a given station (Strahler and Strahler 1997). For instance, a given year or month is considered as wet or dry based on whether that given rainfall is below or above 25% of the normal rainfall.

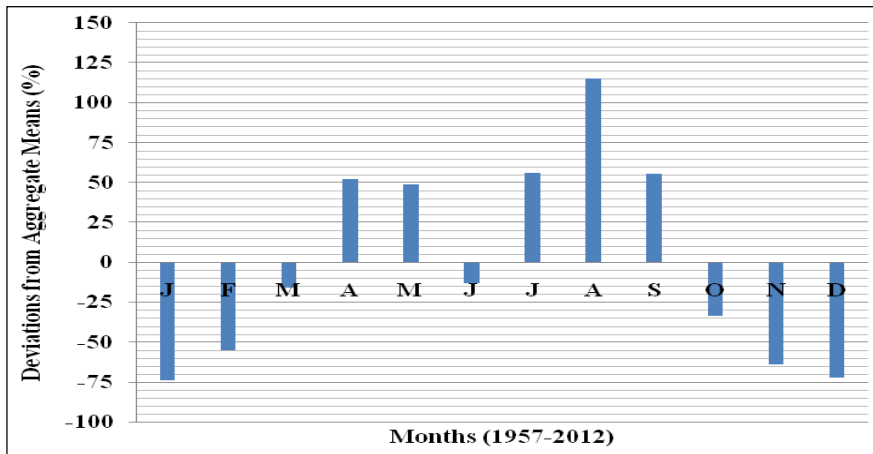
Based on the above premises, the rainfall variability is computed. In the study sub-catchment, there were 5dry and 7wet years from 1957 to 2012 (Figure 7b; Table 2). The common dry seasons are spring and winter, while summer and parts of autumn are the wettest seasons (Figures 7a; 7b & Table 2).



**Figure 7a: Deviation in the Mean Annual Rainfall of Haramaya**



**Figure 7b: Pattern of Monthly (right) Rainfall Variability**



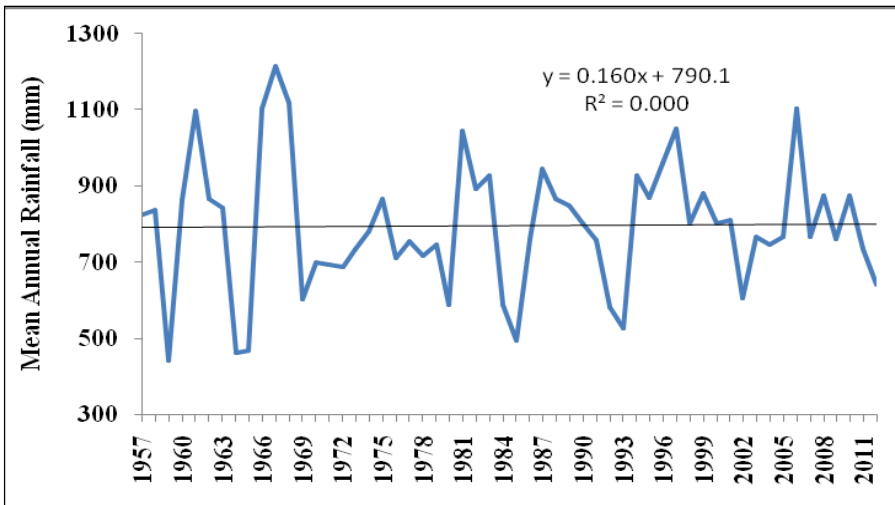
**Table 2: Summary of the Dry and Wet Years, Seasons and Months**

Temporal Durations	Rainfall Variability Status	
	Dry	Wet
Years	1959,1964,1965,1993 &1994	1961, 1966, 1967, 1968, 1981, 1997 & 2006
Seasons	Spring & 2/3 <sup>rd</sup> Winter	Autumn & Summer
Months	June; & October to March	April, May, July, August & September

Source: Based on Figures 7a and 7b.

Linear trend analysis is used to assess the temporal distribution of rainfall as depicted in Figure 8. According to the meteorological data, the sub-catchment experienced relatively highest rainfall during mid 1960s (Figure 8). It implies negative trend in the rainfall distribution over the last half century as can be depicted from the linear trend equation of the chart. Likewise, there is insignificant trends since the trend chart is  $R < 0.5$  (Figure 8). This may imply that the change in the amount and distribution of rainfall are not significant.

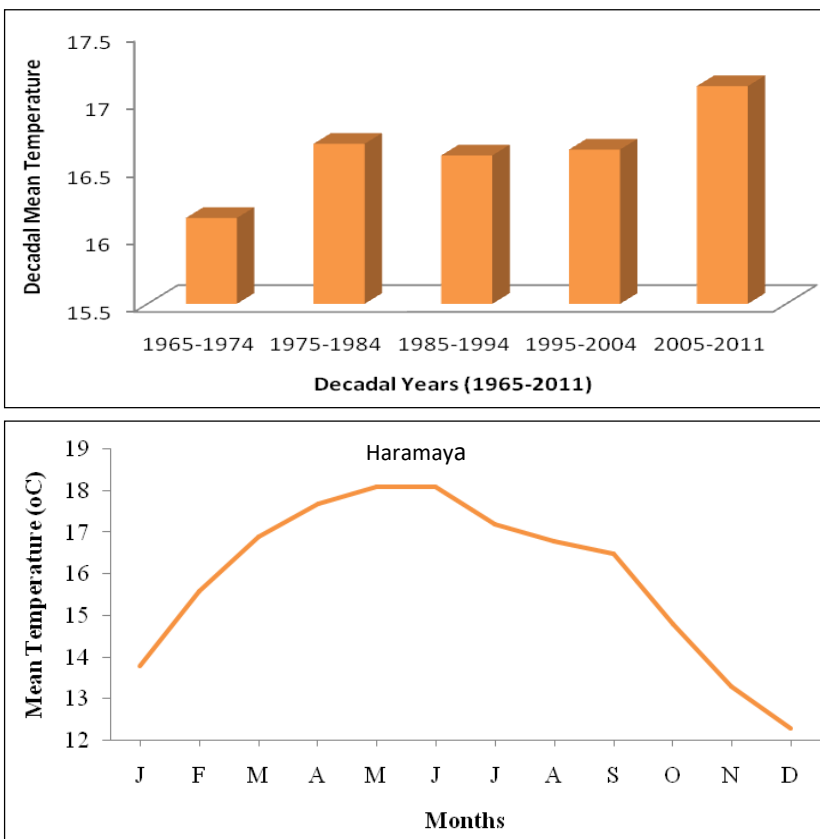
**Figure 8: Linear Trend Equation and  $R^2$  Value of Mean Annual Rainfall at Haramaya**



The amplitude also gives important information on the rainfall variability. It indicates that there are slight variations in the amplitude for the period before 1967 and after 1967: those of the prior one have greater depth of amplitude than those of post 1967 (Figure 8). According to the 56years data, the mean annual rainfall was 794.71mm, the standard deviation was 170.8mm that makes the cv at about 22%, which imply least relative variability in the study sub-catchment.

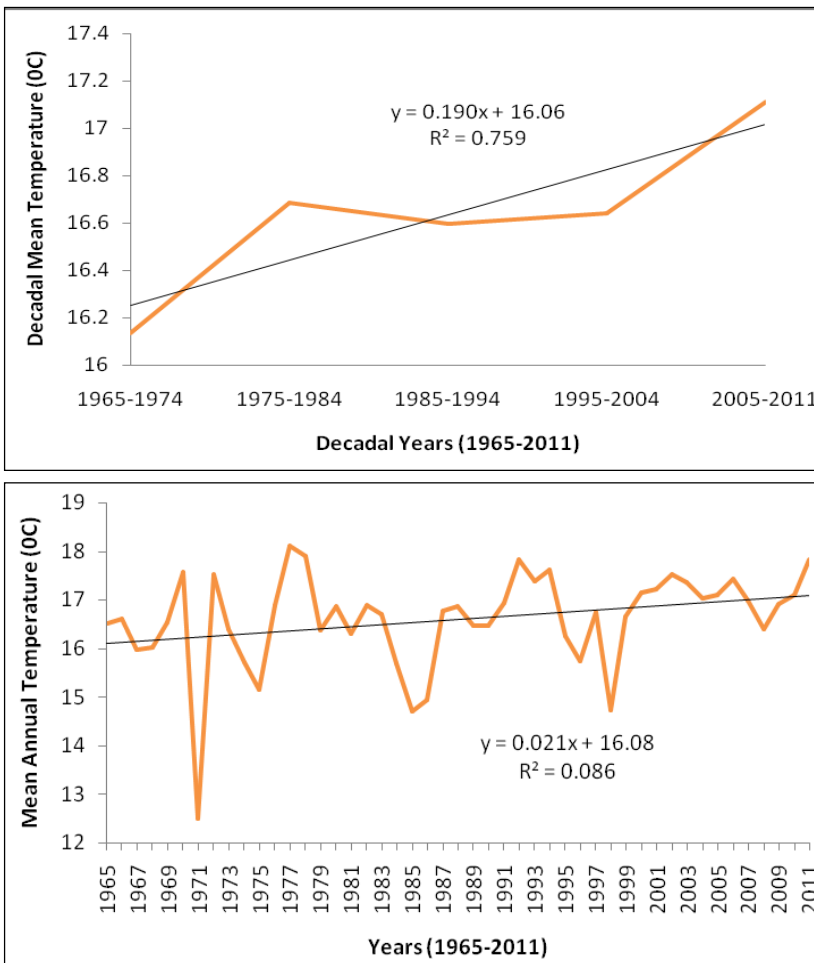
Temperature Distribution and Variability: Air temperature is another very vital element of climate with regards to agriculture and rural livelihood (Obeng & Assan, nd). The current report infers the presence of slight change in the air temperature record. The monthly mean temperature was highest during July (18°C) but lowest during December (8.9°C, Figure 10). The cooling of December is much less than 12°C that was reported by Tesfaye (2003) a decade ago. This is also justified by perception of the key informants whereby night cooling and frost has increased especially after the practical drying of the Lake water since 2005. However, further investigation required for justification of such perceptions and conclusion.

**Figure 9: Temporal Pattern of Mean Temperature (Decadal, left) and Monthly (right)**



The pattern of decadal temperature distribution discloses low record (16.13°C) in the first decade (1965-74) followed by slight rise towards 16.68°C during 1975-84. Consequently, there is decline in the decadal mean temperature by about -0.09°C that was 16.60°C and it continued to slightly rise by 0.04°C to about 16.64°C in the following decade (1995-2004). The preceding seven years (2005-11) records show the mean temperature to rise to 17.11°C (Figure 9). The total temperature variability for the last nearly half a century (1965 to 2011) was computed as 0.98°C.

Figure 10: Temporal Pattern of Mean Annual Temperature



This seems to agree with perception of the local community who stated the increase in the temperature of the area. This is also identified from the trend line equation of the decadal mean temperature  $y = 0.190x + 16.06$  and  $R^2 = 0.759$  that makes  $R = 0.87$  (that is well above 0.5 to show significance of the rise in the temperature). However, this needs further substantiation as the last period (2005-2011) is based on the temperature data of seven years alone (Figure 10).

In the study subcatchment, the percentage distribution of the major environmental challenges perceived by the SHHs indicate that the top two major environmental challenges were shortage of water for irrigation and drinking purposes, and climate change and variability as responded by about about 77% and 74%, respectively (Table 3).

**Table 3: Percentage Distribution of Major Environmental Challenges**

Major Environmental Challenges	SHHs from Both SPAs (%)
Shortage of Irrigation & Drinking Water	76.9%
Climatic Change and Variability	73.9%
Soil and Water Erosion	59.0%
Land Degradation	53.0%
Population Pressure	44.8%
Deforestation	12.7%

*Source: Own Survey, December 2012; NB: Total SHHs=136*

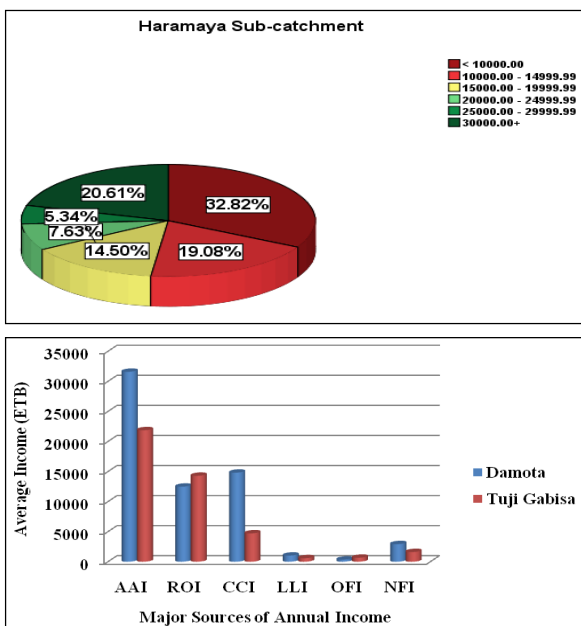
### 4.3 Livelihood Diversification and Strategies

Livelihood Diversifications: Rural livelihood diversification is the process designed to construct diverse portfolios of activities and social support capabilities, and to improve ability of rural households to make a living (Ellis 1998 cited in Ayalneh 2002). It can be achieved by combining farm and non-(off-) farm activities and by members of a single household in Africa, where about 38% of total rural income of household originates from non-farm activities (Carswell 2000 cited in Ayalneh 2002). Livelihood diversification is particularly important for the poorer groups in Eastern and Central parts of

Ethiopia while petty trading was found predominant diversification activity in southern Ethiopia (Von Braun & Pandya-Lorch 1991 and Carswell 2000 cited in Ayalneh 2002).

There is relatively higher income from retained output (ROI) and cash crops (CCI) than livestock (LLI), off-farm (OFI) and non-farm sources (NFI) activities in both sample kebeles around the Dried Lake Haramaya sub-catchment. The annual average income (AAI) of SHHs vary from less than 10,000.00 ETB (=1188USD) to over 30,000.00 ETB (=1782USD) (Figure 11). About 32.82% of them earn below 10,000.00 ETB while about 20.61% get over 30,000.00ETB in the sub-catchments, respectively. However, there is slight variation among SHHs regarding retained output, livestock production and non-farm activities but not significantly regarding cash crop and off-farm sources of income (Figure 11).

**Figure 11: Mean Annual Income in Percentage (left) and Average Income (right)**



Source: Own Field Survey 2011/12; NB: Income amount in Ethiopian Birr (ETB); 16.835 ETB=1USD in 2011/12.

The exchange rate of 1USD was 16.835 Ethiopian Birr (ETB) in March 2011 ([http://www.exchangerates.org.uk/ETB-USD-30\\_03\\_2011-exchange-rate-history.html](http://www.exchangerates.org.uk/ETB-USD-30_03_2011-exchange-rate-history.html)). The rate of the year 2010 (that was USD 1= 16.814ETB) is used in the text.

In the case of the current study, the participation of SHHs in off-farm employment accounts for about 14.3% and 18.5% while those of non-farm activities is 25.4% and 24.6% in Damota and Tuji Gabisa SPAs, respectively (Table 4). Despite their low share of income, non-farm and off-farm activities are attributed to provide important income for smallholding farmers especially the involvement of women in petty trading and non/off-farm employment in nearby urban centres and public/private institutions.

**Table 4: Frequency Distribution of Participation in Off- and Non-Farm Activities**

	Damota		Tuji Gabisa		Mean	
	Frequency	%	Frequency	%	Frequency	%
Whether participated in off-farm activities						
Yes	9	14.3	12	18.5	21	16.4
No	54	85.7	53	81.5	107	83.6
Total	63	100.0	65	100.0	128	100.0
Whether participated in non-farm activities						
Yes	16	25.4	16	24.6	32	25.0
No	47	74.6	49	75.4	96	75.0
Total	63	100.0	65	100.0	128	100.0

Source: Own Survey, December 2012.

Livelihood Diversification Index: Among others, Simpson Index (S.I.) is preferred for its computational simplicity, robustness and wider applicability (Shiyani & Pandya 1998 cited in Khatun & Roy 2012). It is shown in the following formula:

n

$$S.I. = 1 - \sum_{i=1}^n P_i^2$$

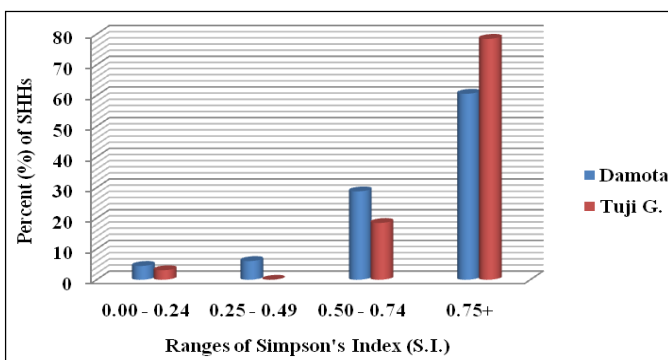
Where,  $i=1$

S.I. = Simpson Index (Index of Livelihood Diversification)

$n$  = the total number of income sources and  
 $P_i$  = income proportion of the  $i^{\text{th}}$  income source.

The value of the index lies between 0 and 1, where 0 implies a complete specialization of livelihood and when it approaches to 1, the level of livelihood diversification increases (Shiyani & Pandya 1998 cited in Khatun & Roy 2012; Apata & Rahji nd). About 16.2% and 10.8% of the SHHs of Damota and Tuji Gabisa SPAs, respectively have completely not diversified their livelihoods (Table 4) whereas 94.4% and 90.8% of sample households have completely diversified their livelihood as their SI values are above 0.61 (Table 5 & Figure 12).

**Figure 12: Distribution of Simpson’s Index**



**Table 5: Frequency Distribution of Simpson Index (S.I.)**

S.I.	Damota		Tuji Gabisa	
	Frequency	%	Frequency	%
0.00*	2	3.0	1	1.5
0.01 - 0.20	1	1.5	-	-
0.21 - 0.40	3	4.5	1	1.5
0.41 - 0.60	4	6.1	4	6.2
0.61 - 0.80	18	27.3	12	18.5
+0.81	38	57.6	47	72.3
Total	66	100.0	65	100.0
S.I.=1**	11	16.2	7	10.8

NB: \*complete specialization and \*\*Complete diversifications.



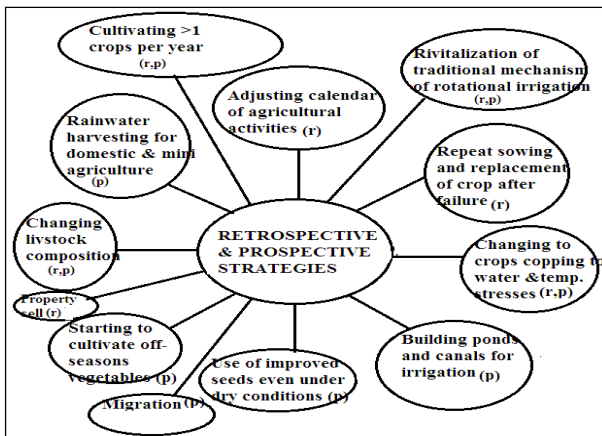
Major Livelihood Strategies: Climate change and variability and related physical and socio-economic challenges are not a new phenomenon for smallholding farmers in Ethiopia as they already developed a range of coping and adaptive mechanisms (FfE 2010). Recurrent droughts have been a major issue throughout the history of Ethiopia and traditional strategies to cope with, and adapt to these droughts are embedded in traditional social structures and resource management systems of the communities. Households in vulnerable environments have developed diverse livelihood strategies for their survival including farm and non-farm activities, taking up low risk activities even at the expense of low return, use seasonal migration to diversify, etc (Rosenzweig & Binswanger 1993 cited in Ayalneh 2002).

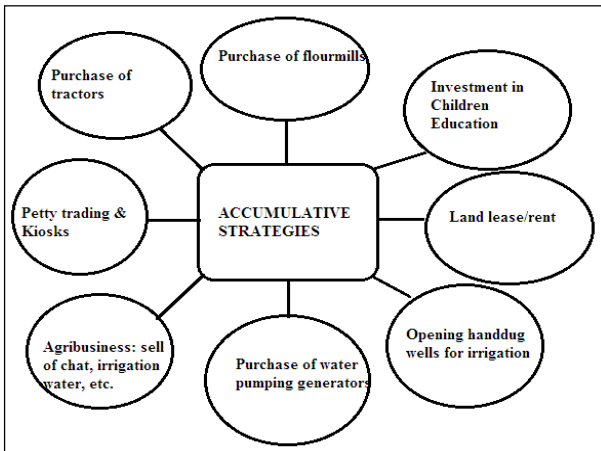
According to the current study, about 69.7% of SHHs of Haramaya used adaptive strategies while 19.7% and 10.6% devised accumulative and coping strategies of livelihood, respectively. The major adaptive and accumulative strategies devised by SHHs are disclosed in Figure 13. Among this, sending children to education is becoming one of important strategies by taking advantage of the education expansion process by the government. They may be related with considering it as a good social security. The future implications of rise in educational status means better achievement of skills and access to wage employment, rise of participation in civic activities and democratic processes for improvement of policies and programs, exposure to political literacy and literate world, etc (Little et al, 2010). Through their millennium of direct exposure to natural resources, households and communities have developed numerous coping strategies to response to extreme climate events. Despite this fact, some of them can have only short-term effects and can be unable to respond to increased and/or severe shocks.

Despite this fact, many traditional coping strategies do provide an important lesson for how East Africa can better prepare and adapt to climate change in the long-term (DFID 2004). This is also substantiated by

similar reports from Tanzania and parts of South Asia whereby rural communities use coping strategies much more frequently than long lists of adaptive strategies (DFID 2004; Machi et al, 2011). For instance, strategies such as shifting of the agricultural calendar and/or using failed-crops' stalks as fodder are mostly retrospective strategies, which are employed on annual basis depending on the actual weather events and requiring few external resources. Such strategies are only effective in the short term; they can buffer the extreme loss of harvests but still result in a yield decline and cannot prevent damage caused by a consistent lack of rainfall or significant delays in the monsoon. Strategies such as re-sowing after an early season failure, borrowing money, or selling assets may even render people more vulnerable as they are depleting their asset base (Machi et al, 2011).

Figure 13: Accumulative and Adaptive Strategies

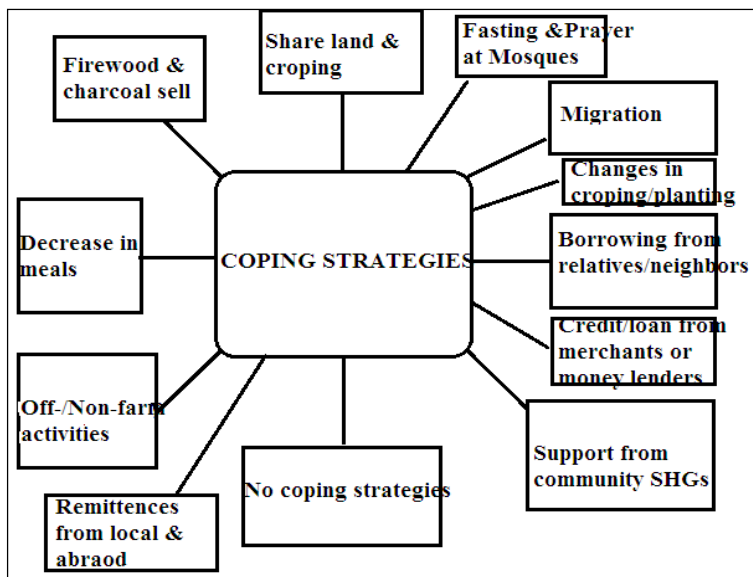




Source: Based on Own Field Survey and adopted from Machi et al, (2011)

Orindi & Murray (2005) also listed petty business, changes in diet, fewer meals and loans from traders as coping strategies for seasonal food shortages. Smallholding farmers also plant crops of different cycle length, practice intercropping and operate on geographically dispersed fields to minimize their exposure to risk. Similarly, they not only combine different species of animals in a single herd but also split their herds into various geographical locations to take advantage of differences in their resistance to disease and food shortage (Ayalneh 2002). In the study sub-catchment, risk coping and sharing strategies also involve self-insurance and informal group-based arrangements that can develop between members of a group or village for mutual support. These mechanisms are often observed operating within extended families, ethnic groups and neighborhood groups (Ayalneh 2002). This is also substantiated by the current report by summarizing the coping strategies mentioned by SHHs (Figure 14).

**Figure 14: Coping Strategies of the Local Communities**



Source: Based on Own Field Survey and adopted from Niemistö (2011)

Although smallholding farmers have a range of strategies to cope with drought, the occurrences of intense and repeated droughts have seriously eroded the capacity of such strategies to respond and withstand the shocks that increased their vulnerability (Aklilu & Dereje 2010). Regarding such practice of coping strategies, about 95.5% and 81.54% of the SHHs from Damota and Tuji Gabisa SPAs, respectively used crop diversification at their coping strategies against crop failure (Table 6). According to FGDs with the community representatives, the traditional coping strategies are associated with prayers and fasting to get forgiveness from Allah. When the effect of drought and famine continues, then the community gathers at mosques for prayer. Though it is not frequent and not commonly seen nowadays, the last stage of such fasting and prayers with reciprocal clothes dressed are held on open fields for getting mercy and grace of rainfall.

In the study sub-catchments, there are clusters (ganda’as) where smallholding farmers are challenged with environmental resources and

therefore look for a volunteer resettlement program to areas where they can access to agricultural lands at this particular time. Through both personal and group interviews and FGDs, remarkable number of participants show interest and demand for volunteer resettlement program due to among others severe shortage of agricultural land for themselves and for the coming generation.

**Table 6: Percentage Distribution of Local Coping Strategies**

Coping Strategies	Damota (No =66)		Tuji Gabisa (No=65)	
	Frequency	%	Frequency	%
Crop diversification	63	95.5	53	81.5
Non/Off-farm activities	17	25.8	21	32.3
Community Prayers for rainfall	15	22.7	7	10.8
Remittance from relatives	4	6.1	-	-

*Source: Own Survey (December 2012).*

## 5. Conclusions

Climate change and variability is one of the most challenging environmental stresses affecting set of activities. The impacts of CCV are severe in LDCs like Ethiopia. The gradual dynamics in the pattern mean annual rainfall and temperature mid 1960s of the region adversely affected crop cultivation and livelihood of the community. The Hararghe highlands are one of those where the incidence of such dynamics become apparent with the degradation of Lake Haramaya and the associated livelihood shocks upon the society. Both the annual and decadal mean rainfall distribution indicated insignificant change but slight indications of increase in that of mean monthly, annual and decadal temperature. The local community also identified shortage of water for domestic and agricultural purposes and climate variability as among the major environmental challenges. This led them for complete livelihood diversification by large proportion of the community. Thus, they have traditional livelihood adaptive, coping and accumulative strategies. However, the efficiency and competence of such

strategies vis-a-vis the current challenges of the study area: namely climate change/variability, population pressure, land degradation and fragmentation, institutional and organizational influences may require further investigation for the realization of integrated intervention towards sustainable livelihood development in the area. This is the time where all the stakeholders at micro, meso and macro levels should come together in devising integrated and multidisciplinary interventions and mechanisms that would support the efforts of the local community for sustainable environmental management and rural livelihood development.

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# **Time Poverty among Students of Jigjiga University**

**Wubeshet Gezahagn<sup>1</sup> and Melkamu Tamene<sup>2</sup>**

## ***Abstract***

This research has attempted to analyze time poverty among university students in Jigjiga. As dimension of poverty are many, time also has poverty. As per the researchers concerned, time poverty among university students was untouched theme. Jigjiga university students allocate their limited resource of time in to four classifications that is contracted, committed, necessary and free time, from this majority of time were allocated to necessary time. But there is gender wise disparity; for male, largest proportion was to contracted time while it is necessary time for female. To estimate the threshold for time poverty, mean of free time were taken, that is 4.40 hrs/day. Using this poverty line, measurement of time poverty were undertaken using headcount index and found that 53.87% of students are time poor. Time poverty can be determined by study time, time for religion, gender and years of enrollment. For such analysis, as time poverty is binary variable, probit model were suited. And after passing the necessary statistical, econometrical procedure and using STATA software package, the likelihood of time poverty would increase as study time and time for religion increase, significantly. But surprisingly as for female the probability to be time poor are inversely related. Those who are time poor are those who allocate their time for study (on/off class) ceteris paribus therefore time poor student have sound academic performance (CGPA). And also academic performance measures quality of education. CGPA affected by study time but study time; which leads simultaneous equation bias. To avoid it we used recursive regression model. Using this regression both CGPA and study time were treated as dependent variable individually. Therefore the results of the regression indicate CGPA determined by study time, which is for every additional hour for study time CGPA increase by .064

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points. When we went to the regression on factors that affect study time we found that, Grade 12 result of SAT positively affects study time. Surprising! Also times for internet (particularly Facebook) affect study time negatively, that is for each hour of time for Facebook students decline their study time by one third hour. And there are other factors significant to dependent variables. Finally we gave some thoughts on how to deal with this new phenomenon.

**Key words:** time poverty, Jigjiga university students, probit model, recursive regression

## **1. Introduction**

### **1.1 Background of the Study**

Time is necessary for any activity and is a fundamental prerequisite enabling or restricting daily activities. In particular, together with economic and social perspectives, Merz and Rathjen (2011) argue that time (beyond income) is an elementary poverty dimension when an extended poverty concept with social exclusion is accepted, since any social participation requires time.

In contrast to a total leisure time concept, Merz and Rathjen (2011) argue that time poverty exists when genuine personal leisure time is below a certain level, and no time or only restricted time is left for social participation. They defined genuine personal leisure time as time left after all obligations, like labor, child care, household requirements, health activities, sleeping and personal care are met. There is no doubt that social participation is also possible in some of these activities. However, the situation is tight when all the obligations and duties for daily living – enjoyable or not, voluntarily or not – are fulfilled and no time is left for that genuine personal leisure.

The classification of time given by Aas (1982) is important to study time use of university students. He categorizes time in to four, namely contracted

time (is the time spent for study be it in class and off class activities), committed time (is the time used for interaction and communication), necessary time (time used to sleep, eat, go to toilets and the like) and finally free time.

According to this classification of time, students are expected to give the lion's share of their time to contracted time. But some students allocate much of their time for commitments and for other categories which make them give less priority to their contracted time. For instance it is observed that some students frequently practice religious activities which can increase committed time and decrease the allocation for the other categories. In developing countries like Ethiopia, religion is deep-rooted among the general population which is the same for university students. An African once noted that "Americans all have wrist watches, but they never have time." Thus, religious places/activities are one way of spending time for university students.

Students can be time deficit/poor if the leisure time is less than the standard benchmark/threshold. This happens if the time allocated for study purposes (that is on class and off class time) and others like necessary and committed activities are much/higher than that given for leisure.

Academic performance of students is highly correlated with time spent on study. If students give much of their time for commitment and necessary time, their academic performance will decline. As the study of Nonis and Hudson (2006) confirm today's college students spend less time on studying. They noted that a 2003 survey conducted by the Higher Education Research Institute at UCLA's Graduate School of Education and Information Studies found out that only 34% of today's freshmen spend six or more hours per week outside of class on academic-related works (e.g., doing homework, studying) during their senior year in high school. But more leisure time can

also affect academic performance of students, because they spend less time on their studies.

Generally, not only more committed and necessary time, but also less free time (leisure time) affects academic performance. Leisure time is a very important component of time that can help students to enhance their mental and physical strength.

## **1.2 Policy Implication**

The study has the following implications:

- For students: Proper time management helps them to improve their educational performance.
- For the Jigjiga university: The analysis of time poverty and its determinants are necessary to fulfill its objectives whose logo is “a place where aims become achievements.”
- For the government: The study will be one policy input to improve education quality in the country.

## **1.3 Scope of the Study**

This research deals only with Jigjiga University students who were enrolled at the regular session from the second year to six year for 2013/14 academic year. It excludes the first year students from consideration because the yearly cumulative GPA of students was used as one variable.

## **1.4 Objectives of the study**

### **1.4.1 General Objectives**

The general objective of this study is to analyze the time poverty among regular students at Jigjiga University.

#### **1.4.2 Specific Objectives**

Specifically this study has tried to:

- find a threshold for time poverty,
- measure time poverty among students,
- find correlates of time poverty, and
- investigate academic performance of students.

#### **1.5 Statement of the Problem**

The saying “time is money” can hold true for university students if it were expressed as “time is grade”, which means that if the students spend much of their time to study, they can succeed in passing the exam or scoring good marks. It is rational to expect university students to devote much of their time on their education because time is a precious resource. Once it is gone, it never returns. As such, it is imperative to utilize time appropriately. Those students who manage their time well become successful in life.

Saqib & Arif (2012) argue, that time can be used in both self-care and leisure. Self-care and leisure may be regarded as utility enhancing consumption activities, but their role in improving human capital cannot be ignored. Spending time in rest, leisure and taking care of ourselves makes us more productive. Mandatory leave in business organizations and rest on public holidays that have become common are an acknowledgement of this fact (Saqib & Arif, 2012).

As poverty dimensions are many, when the amount of leisure time is less than its threshold, it can be called as time poverty. The case of time poverty is not same as the income poverty, i.e if leisure time is less or more than the required level, it will have a negative effect on students. Less leisure leads students to failure in their studies and more leisure to activities not contributing to the wellbeing of students.

According to Aas (1982), classification of national time use study identifies four main time categories: namely, contracted time, committed time, necessary time, and free time. Contracted time is time that has been set aside to undertake paid work or education. One is obliged by the nature of the employment or educational contract to allocate time to these activities as appropriate. Committed time refers to time undertaken to maintain one's home and one's family. Necessary time is time required for eating, sleeping, bathing etc. Free time consists of the 24 hours of the day minus contracted, committed and necessary time. Free time is further broken into what is deemed necessary for one's health and any additional free time. This distinction between four kinds of time is useful and can be applicable in particular for the study of time poverty among university students.

According to Robles (n.d), time-use estimates are measured in hours per week and individuals allocate the "total time available" (168 hours a week) between tertiary activities, leisure, and work, which includes study and attending lesson in class. The "time devoted to tertiary activities" is the time needed to maintain a person's biological functioning (time spent for rest, personal hygiene, and nourishment). Harvey and Mukhopadhyay (2006) says that when examining a person's allocation of time; it is assumed that from the 24 hours, necessary time (including the necessary component of free time) must be subtracted, in order to allocate time which a person is free to use between work and leisure. However, a person's freedom to allocate time is constrained by the requirement to maintain their household. The minimum time required to run a household is considered as the committed time. After further reducing their supply of time by that required for household commitments, a person is left with allocable time. With this supply of time that a person can exercise his or her work-leisure choice. If a person contracts more time than available, it is assumed that they have reduced the committed time and have therefore not met the minimum amount of time required to maintain their household. People



who do not meet this minimum requirement are considered to be time poor (Harvey and Mukhopadhyay, 2006).

## **1.6 Limitation of the Study**

Students live in different places and finding them was a little bit difficult and this affected the quality of data collected.

## **2. Literature Review**

### **2.1 Conceptual Framework**

#### **2.1.1 Definition and Measurement of Time Poverty**

Time is a limited resource. The more time an individual spends on working, the lesser will be the time for rest and leisure. When the total work time exceeds a certain threshold, the so-called time poverty line, individuals do not have enough time for rest and leisure, and thereby are considered time poor. (Pablo Suárez Robles, n.d). But genuine leisure time in particular is personal. So unlike other literature that confine time poverty to direct household reference, this study sticks to the measured individual time of university students.

Robles, n.d defines “leisure” as all dispensable activities that we cannot pay somebody else to do for us, and corresponds by default to total time available for work minus “total work time” (leisure is thus treated as a residual). Bardasi and Wodon (2009) suggest that as other dimensions of poverty measures, headcount index of poverty, the poverty gap, and the squared poverty gap are used to measure time poverty. But according to Robles (n.d) headcount index of time poverty and time poverty gap were used to measure poverty of time. In general Bardasi and Wodon (2009) put the time poverty framework, the headcount index is the share of the population which is time poor, that is, the proportion of the population that works a number of hours  $y$  that is above a certain time poverty line  $z$ .

Suppose we have a population of size  $n$  in which  $q$  individuals are time poor. Then the headcount index of time poverty is defined as:

$$H = \frac{q}{n} \dots \dots \dots (1)$$

The time poverty gap represents the mean distance separating the population from the time poverty line, with the non-time poor being given a distance of zero. This measures the time deficit of the entire population; in effect, the amount of time that would be needed to shift all individuals who are time poor below a given time poverty line through perfectly targeted “time transfers.” Such transfers are actually provided to some households in some developed countries, for example through the provision of subsidies for taking care of children in working families (or simply of large families—in Belgium, households having three very young children may benefit from the help of a social worker at home.)( Bardasi and Wodon,2009) Mathematically, the time poverty gap is defined as follows:

$$PG = \frac{1}{n} \sum_{i=1}^q \frac{y_i - z}{z} \dots \dots \dots (2)$$

Where  $y_i$  is total working hours of individual  $i$ , and the sum is taken only among those individuals who are time poor.

According to Bardasi and Wodon (2009) the final measure is squared time poverty gap, more weight is given to those who have extra long working hours. Said differently, the squared poverty gap takes into account the inequality among the time poor. It is defined as:

$$SPG = \frac{1}{n} \sum_{i=1}^q \left[ \frac{y_i - z}{z} \right]^2 \dots \dots \dots (3)$$

Generally the headcount, poverty gap, and squared poverty gap are the FGT class of poverty measures whose formula includes a parameter  $\alpha$  taking a value of zero for the headcount, one for the poverty gap, and two for the squared poverty gap in the following expression (Bardasi and Wodon(2009):

$$p\alpha = \frac{1}{n} \sum_{i=1}^q \left[ \frac{y_i - z}{z} \right]^\alpha \dots \dots \dots (4)$$

But for the purpose of this study only headcount index measure of time poverty will be used.

**2.2 Determinant/Correlates of time poverty**

According to Bardasi and Wodon (2009) the probability of being time poor was explained by personal, household and area variables, such as age, sex, marital status, educational qualifications, religion, the consumption quintile of the household, the number of infants (aged 0-5) and children (aged 6-14), adults (aged 15-64) and senior people (aged over 65), and their square values, presence of disabled people, and finally, geographical dummies for rural/urban areas and for the region of residence. But this study is concerned with university students, only whose level determinants are generally different from what Bardasi and Wodon (2009) explained in their research.

**2.3 Academic Performance**

Education is a basic human need and a key factor for development. Investment in education will directly raise the well-being of individuals, but it will also raise their 'human capital' and capacity to acquire means for the satisfaction of other basic needs. (Vos, 1996).

According to Clarke (2002) quality of education that underpins most ranking efforts can be organized into three categories: student achievements, faculty accomplishments, and institutional academic resources. Specifically Bratti and Staffolani (2002) conclude that quality of education can be attained by the characteristics of educational institutions (mainly primary and secondary schools), which include class size, teacher-student ratios, expenditure per student, differences between public and private institutions. Student behavior, namely student time allocation has also effects on academic performance.

According to Bratti and Staffolani (2002) proper time allocation of students ensures highest academic performance, and the amount of work required to pass a certain examination or to graduate from an institution.

Gartner and Zulauf (1998) explain factors that determined academic performance of three classes at Ohio State University during the autumn quarter of 1997. The factors include time spent on studying, time spent on class meeting time, hoped for gpa, ACT score, gender ,cumulative credit hours at the beginning of fall quarter ,time management score and attendance.

### **3. Data Source and Methodology**

#### **3.1 Data source and method of collection**

Primary data was the main source for this study at Jigjiga University. The data was collected using probabilistic sampling technique. After excluding first year students from the study (this is because first year students are not compatible for the study), a total population of 4,180 regular students was used. Jigjiga University has about 33 departments within its 8 colleges. A sample of 250 students was selected using a simple random sampling technique. From the total sample of 250 students selected to fill the questionnaire, only 245 accurately accomplished the task.





From Gartner and Zulauf (1998) academic performance was measured by semester GPA, and can be viewed as involving the following production function:

$$\text{Semester GPA}_i = f(I_i, L_i) \tag{7}$$

Where  $I_i$  is the  $i^{\text{th}}$  student's inputs and  $L_i$  is a set of attributes of  $i^{\text{th}}$  student that are related to students' ability to effectively manage this production function or personal attributes that may affect the input-output relationship.

The relationship between academic performance and time used to study is causal and this leads to simultaneous equation bias. So to solve this bias, we need recursive regression model that is solved using linear regression. But here there are variables associated with academic performance, including the amount of time spent studying, semester credit hours, gender and other independent variables hypothesized to affect academic performance.

$$y_1 = \beta_0 + \beta_1x_1 + \beta_2x_2 \dots \mu_1 \dots \dots \tag{8}$$

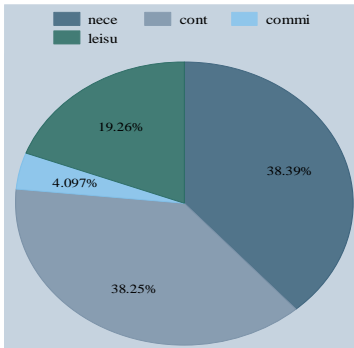
$$y_2 = \gamma_0 + \gamma_1y_1 + \gamma_2x_1 + \gamma_3x_2 \dots \mu_2 \dots \dots \tag{9}$$

## 4. Results and Discussion

### 4.1 Classification of Time

As it was explained by Aas (1982), time allocation in 24 hours can be classified as contracted, committed, necessary and free time. And this time classification is also implementable by university students in their own peculiar characteristics from other section of the society.

**Figure 1: Classification of time by students**

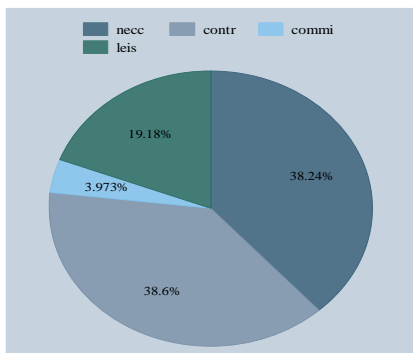


From this pie chart, necessary time took the largest share among which is 38.39%; but there is gender difference because the highest time share for male goes to contracted time but for female it is necessary time.

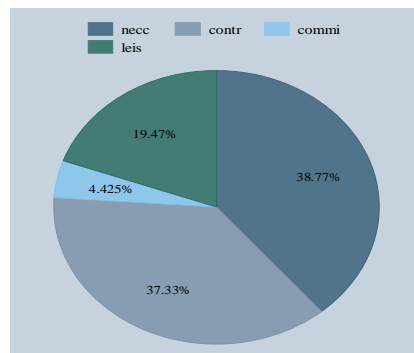
Even though there is not much difference in the gender gap in allocation of time for leisure/free time. It is about 19.18% and 19.47% of the 24 hours a day on average for male and female, respectively. Also the case for committed time has a slight difference between the genders, because females allocate more than 1 hr per day for religion but for males its less than 1 hr.

**Figure 2: Classification of time across gender**

Pie chart of male



Pie chart of female





## 4.2 Estimating Time Poverty Line

Unlike income (food poverty) there is no well-established measure of time poverty line that is why Bordon (2005) uses two alternative measures of poverty lines, a lower threshold which equals 50 hours per week and another threshold which equals 1.5 times the median of the total individual working hours distribution. According to Segib and Arif (2012) time poverty line is 10.5 hours(630 minutes).; that is, time poor are those who spend more than 10.5 hours in a day on committed activities (SNA + ex-SNA) system of national accounts and extended system of national accounts. Both researchers are confined to their objective of study, that is, to general society and also since time allocation is subjective to all people, it is difficult to put the time deficit/poverty of all under one basket unlike income poverty. So here this study tried to establish its own poverty line, and adopted the formula given by Bordon (2005). It used the 1.5 times median of total working hour distributions and ended up with 16 hours per day for contracted and committed time which is obviously not permissible because out of 24 hours time left for others such as necessary and free time which take significant amounts of time of the students is too low. So the study took the relative measure of 4.4 hours per day. This is the average of free time for all of the sample participant students.

## 4.3 Measure of Time Poverty

As measure of income poverty line used using FGT .It is possible to decompose time poverty by

$$p\alpha = \frac{1}{n} \sum_{i=1}^q \left[ \frac{y_i - z}{z} \right]^\alpha \dots \quad (4')$$

using  $\alpha = 0$  measure of time poverty will be handled by head count index that is

$$H = \frac{q}{n}$$

where,  $q$  the number of time poor,  $n$  the total population

Using head count index poverty level in Jigjiga University is 53.87%. This means that 53.87% of students are time poor, that is, their contracted, necessary and committed time outweigh their free time and these (53.87%) students are time deficit. But when we decompose time poverty, there are other measurements including time poverty gap index and severity index of time poverty, but due to the objective and reality on the ground the paper did not use these measurements.

#### **4.4 Correlates of Time Poverty**

The analysis to find determinants of time poverty was carried out by taking a few variables that are assumed to suit the characteristics of students/university. Here the dependent variable is binary which takes the value of 1 if a student is time poor/ if he/she fails to attain free time (4.40 hr per day) less than the threshold and 0 if student is not time poor. The regressors are both dummy and continuous variables. These are gender, 1 if male and 0 otherwise; and senior students from any department or final year are 1 and 0 otherwise. Time for study is a continuous variable which accounts for the amount of time spent for study (i.e. on class and off class) and time for religion is categorized under committed time of classification. The amount of time for religious purpose for any religion followed by students was measured in continuous variable.

As the dependent variable is binary we used binary choice model, in particular probit model. The result of regression on both estimated coefficient and mean are reported as follows.

**Table 1: Econometrics result of probit regression**

. probit poornot relhour sthours gender senior,nolog					
Probit regression			Number of obs	=	245
Log likelihood = -154.11401			LR chi2(4)	=	29.94
			Prob > chi2	=	0.0000
			Pseudo R2	=	0.0885
poornot	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
relhour	.4567158	.1233938	3.70	0.000	.2148684 .6985632
sthours	.2006269	.0523191	3.83	0.000	.0980833 .3031705
gender	-.1304072	.1923042	-0.68	0.498	-.5073164 .2465021
senior	.1385207	.17635	0.79	0.432	-.207119 .4841603
_cons	-1.047348	.286884	-3.65	0.000	-1.609631 -.4850659

students who allocate more of their time for study (on class and off class) are more likely to be time poor and significant and on average as time for study increase by 1 hour the probability of being poor increase by 8 percentage point. The coefficient on time spent on religion is positive and significantly related with the probability of being poor and the mean value of time for religion the probability of time poverty increases by 18.08 percentage points.

The result on men indicates that men at 5 percentage points are less likely to be time poor than women. But it is negatively insignificant than female. Female students are more likely to have time surplus and significant. Those students who are in the final year (senior) are more likely to be time poor but insignificant than junior students. As junior students attend most classes than seniors the likelihood to be poor for this group of students goes down and significant.

#### 4.5 Multicollinearity and Goodness of Fit

As multicollinearity exists in the model the important assumption of this model will fail. So it important to check whether there is multicollinearity between variables on both discrete and continuous variables; to do so variance of inflating factor(VIF) was used to detect the presence of multicollinearity among explanatory variables. Therefore, accordingly the

VIF of all variables were found to be smaller than threshold 10 which indicates the existence of serious multicollinearity among variables but here VIF is 1.3, that is less than 10 therefore no problem of multicollinearity among variables.

Out of 245 sample individuals included in the model, 155 were correctly predicted (count  $R^2 = 63.27$  percent prediction). The specificity (correctly predicted time rich) indicates that out of 113 time rich students, 66 were correctly predicted by the model, which is 58.41 percent prediction. Similarly, the sensitivity result (correctly predicted time poor) indicates that out of a total 132 time poor students, 89 were correctly predicted by the model, which is 67.42 percent prediction. The chi-square value shows a significant association between observed time poverty/rich and model prediction of time poverty/rich ( $\chi^2 = 29.94, p < 0.000$ )

#### **4.6 Use of Time and Academic Performance**

As contracted time for students increases there is an increase in time poverty among students and the time poverty that come from increment in study time (on and off class) will increase academic performance of students. From the above probit regression result time poverty and study time have a significant and positive relationship, which can raise questions like “is there a positive relationship between time poverty and academic performance of students?”

#### **4.7 Academic Performance**

Plenty of research has been conducted in the field of the input factors of the educational production function to explain the determinants of educational achievement. Most studies focus on institutional inputs, e.g., student-teacher ratio, class size or school or university quality. Only little attention is paid to student-related inputs like the students' time allocation

(Grave, 2010). Therefore this research shed some light on the productivity of different time uses with respect to academic achievement.

**Table 2: Econometrics result on recursive regression**

sureg (cgpastudytime income gender sat) (studytime income gender sat relio intern hoped >cgpa),corr

Seemingly unrelated regression

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
cgpa	245	4	.4945772	0.0587	22.18	0.0002
studytime	245	6	1.576061	0.1173	35.60	0.0000
	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cgpa						
study time	0.0647186*	.0194097	3.33	0.001	.0266763	.102761
income	4.43e-06	.0000696	0.06	0.949	-.0001319	.0001407
gender	0.1118134***	.0724522	1.54	0.123	-.0301904	.2538172
sat	0.0045258**	.0025735	1.76	0.079	-.0005183	.0095698
_cons  +	2.351274*	.1517569	15.49	0.000	2.053836	2.648712
Study time						
income	-0.0002094	.0002241	-0.93	0.350	-.0006487	.0002299
gender	0.4671959*	.2310373	2.02	0.043	.0143711	.9200206
sat	0.0169924*	.0082081	2.07	0.038	.0009048	.03308
relio	-0.1132398	.1216804	-0.93	0.352	-.3517289	.1252494
intern	-0.2940177*	.1385163	-2.12	0.034	-.5655046	-.0225309
hopedcgpa	0.7321235*	.2300813	3.18	0.001	.2811723	1.183075
_cons	0.6876344	.8500979	0.81	0.419	-.9785269	2.353796

Correlation matrix of residuals:

cgpastudytime

cgpa 1.0000

studytime -0.0675 1.0000

Breusch-Pagan test of independence: chi2(1) = 1.117, Pr = 0.2906

\*\*\*, \*\*, \* significant at the 15, 10 and 5 percent test level respectively

Gijselaers and Schmidt (1995) quoted Carroll's theory which specifies that degree of learning is a function of time actually spent on learning and time needed to learn. And Carroll states that achievement is maximized if time

spent increases to the point where it equals that amount of time actually needed to learn.

Grave (2010) translog production function shows that time spent on attending courses and on self-study are substitutes as well as time use for courses and for other study-related activities. In this research we found that Cumulative GPA and study time have a positive correlation, every additional hour of study time increases cumulative GPA by .064 points (six-point scale) as the study time increases and the marginal impact of additional study is small *ceteris paribus*. This is consistent with Gartner (1998) which notes that study time has significance on quarter GPA, that is, for each additional hour spent studying during the week increased quarter GPA by only 0.015 points.

The coefficient indicates that after controlling for the other variables, males achieved a 0.111 higher cumulative GPA than female. Gartner (1998) reported a similar finding in one of his analyses. Hence gender is significant.

Coletta et.al (2007) describe SAT that scores provide a readily available alternative means of taking account of students' reasoning abilities. The linear regressions results are presented in the above table indicate that SAT score affect CGPA, positively. Gartner (1998) also gave the same result. But income has insignificant impact on CGPA.

Turning to the study time equation, the time for internet and Facebook in specific variable estimated from the equation is statistically significant. Time for internet affects study time negatively, that is for every hour of time for Facebook, students reduce their study time by about one third of an hour. As Junco (2011) quoted (Kirschner&Karpinski, 2010) Facebook users reported studying fewer hours per week than non-users. And (Nonis& Hudson, 2006) witnessed that the Internet, WWW, cell phones, iPhones, and iPods are only part of a vast array of potential distractions to today's

college students, who spend less time studying than their predecessors. This also happens as a matter of globalization and proximity to new technology (geographically the town is near to the port). Students in Jigjiga University share the effect of information technology which has the potential to reduce their study time.

After controlling the effect of other variables on study time, being male has a positive relation with the study time. That is study time of male increases by 0.46719 but it insignificant with females. The most surprising result is on SAT. SAT score and study time are substitute inputs. In his research Gartner (1998) got a negative relationship between ACT score and study time. But here we obtained that those who score at SAT tests finely increase their study time keeping other variable constant. As expected, hoped CGPA affect study time positively, for every point scale of CGPA increments study time increase by 0.73.

But income, relationship status, time for religion variables hardly affect and insignificant impact on study time.

## **5. Conclusion and Recommendation**

### **5.1 Conclusion**

At Jigjiga University student after allocating of time for necessary, committed and contracted activities within 24 hours, are left with free time. A threshold of 4:40hrs per day of free time is established. A student below this estimated line of time is called time poor. To measure time poverty, head count index was used obtained by dividing the time of poor students by the total sample population. Therefore 53.87% of students from second to six year students were time poor/deficit students.

Students allocate most of their time to necessary time while it is expected of them to give the major share to contracted time. With regard to gender

disparity, female students give more emphasis to necessary time unlike male students who allocate the major share to contracted time. The probability to be time poor will rise:

- if the time devoted to religion increases, and
- if the time for study (on and off class activity) increases as it will be expected. For junior students (not graduating class) of any department, the probability of time poverty will decrease and significantly, unlike in the case of senior students.

If contracted time of students increases, there is an increase in time poverty among students, but the increment in time for study (on and off class) will increase academic performance of the students. Study time and cumulative GPA of students is highly correlated. To catch the effect of study time on CGPA recursive regression was used because of the causal relationship between the two variables.

Academic achievement of students can help to measure quality of education. Study time and SAT score have a positive impact on the cumulative GPA of students and it is significant. Male students have a higher CGPA score than female students. When time for study was used as a dependent variable, SAT score and a CGPA have a positive relation with time to study while the time for internet in specific Facebook can significantly reduce time for study. Male students allocate more time for study (on and off class) than female students.

## **5.2 Recommendations**

Decreasing income/food poverty may be the target of a rational government but in case of time poverty for university students, it is a different story. In Jigjiga university more than half (53.5%) of the students had a time deficit. While the majority of time was allocated to necessary



time .Therefore in order to increase study time (on and off class) all concerned need to consider the following recommendations.

For students: The goal of university students is to be successful in their studies but allocating much of their time for necessary activities (sleeping, eating, etc) affects their performance. They should better focus on contracted time.

Regarding internet and Facebook, students should use them in educationally relevant ways. As Junco et al. (2011) note, having students communicate (and therefore socialize) about course content leads to greater gains in academic performance. For instance, a faculty member might create a Facebook group for a course and ask students to socialize about course content and share course-related information from news sources.

For university management: The university management needs to provide quick meal services in cafeterias. Students waste a lot of time standing in queues.

For the (government): The examination given by the Ministry of Education to test the reasoning ability of students is not right signal to measure ability(cognitive) because students scoring high marks in SAT have much less time to study. Therefore the government has to design new cognitive ability measurement tests.

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**Annexes**

**Annex.1: Descriptive Statistics for variable used in probit equation**

summarize poor senior sthoursrelhour gender

Variable	Obs	Mean	Std. Dev.	Min	Max
poor	245	.5387755	.4995147	0	1
senior	245	.3510204	.4782664	0	1
sthours	245	3.869048	1.680967	.5	8
relhour	245	.9555102	.8381216	0	5.15
gender	245	.7265306	.4466522	0	1

-----+-----

**Annex.2: Descriptive Statistics for variable used in recursive regression equation**

Variable	Obs	Mean	Std. Dev.	Min	Max
summ	245	2.910306	.510797	1.84	6.2
cgpa	245	.6326531	.483069	0	1
relation	245	555.102	458.8469	50	2500
income	245	.7265306	.4466522	0	1
gender	245	3.869048	1.680967	.5	8
studytime	245	.7091837	.7400914	0	4.5
intern	245	.9555102	.8381216	0	5.15
relio	245	49.70204	12.48823	19	85
sat	245	3.319633	.4509338	2	4
hopedcgpa					

**Annex 3: Marginal effects after probit**

. mfx

Marginal effects after probit  
 y = Pr(poornot) (predict)  
 = **.54787439**

variable	dy/dx	Std. Err.	z	P> z	[ 95% C.I. ]	x
relhour	.1808897	.04868	3.72	0.000	.085483 .276297	.95551
sthours	.0794615	.02072	3.84	0.000	.038855 .120068	3.86905
gender*	-.0514086	.07537	-0.68	0.495	-.199124 .096307	.726531
senior*	.0546815	.06932	0.79	0.430	-.081189 .190552	.359184

(\*) dy/dx is for discrete change of dummy variable from 0 to 1

**Annex 4: Sensitivity and Specificity**

. estat classification

Probit model for poornot

Classified	True		Total
	D	~D	
+	<b>89</b>	<b>47</b>	<b>136</b>
-	<b>43</b>	<b>66</b>	<b>109</b>
Total	<b>132</b>	<b>113</b>	<b>245</b>

Classified + if predicted Pr(D) >= .5  
 True D defined as poornot != 0

Sensitivity	Pr( +   D)	<b>67.42%</b>
Specificity	Pr( -   ~D)	<b>58.41%</b>
Positive predictive value	Pr( D   +)	<b>65.44%</b>
Negative predictive value	Pr(~D   -)	<b>60.55%</b>
False + rate for true ~D	Pr( +   ~D)	<b>41.59%</b>
False - rate for true D	Pr( -   D)	<b>32.58%</b>
False + rate for classified +	Pr(~D   +)	<b>34.56%</b>
False - rate for classified -	Pr( D   -)	<b>39.45%</b>
Correctly classified		<b>63.27%</b>

# **Analysis of Features of Poverty in Dire Dawa: A Socio-Political Economy Approach**

**Yonas Abera<sup>1</sup> and Anwar Adem<sup>2</sup>**

## **Abstract**

*This paper was conducted using socio-political factors as a core point of analysis of features of poverty in Dire Dawa Administration. This inquiry was undertaken making use of both primary and secondary data sources. A survey was conducted on 80 poor and 80 non-poor households, and key informant interviews and focus group discussions were held with officials of government and non-government organizations. In addition, policy documents were reviewed to get qualitative information. The collected data was analyzed using a mixed approach (using both quantitative and qualitative methods of analysis). The quantitative analysis was made using econometric Probit regression model, the result of which shows that gender, demographic factors, education, background of the households, social interaction, kinship, access to resources, and other threats were found to be statistically significant to affect economic status of households. Hence, these factors should be well considered while dealing with poverty reduction activities. The qualitative analysis carried out based on results of interviews shows that there are multi-dimensional socio-political factors and practices that need due attention which otherwise retard efficiency of the poverty reduction activities.*

**Key words:** Poverty, socio-political, policy, factors of poverty

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## 1. Introduction

Poverty has become a pressing public policy concern at the international, national and local levels. At the international level, particularly, poverty-focused policies have been widely adopted in the last thirty years. These include Structural Adjustment Programs (SAPs), Poverty Reduction Strategies (PRSs) and the Millennium Development Goals (MDGs). In spite of these initiatives, poverty remains the most pressing problem of the planet in general and in developing countries in particular. In Sub-Saharan Africa (SSA), there is a dismal record of implementing anti-poor policy decisions, and poverty reduction results have been inadequate. The failure to achieve these policy objectives possibly results from the multi-dimensional nature of poverty that differs in different socio-economic and socio-political contexts (Maia and David, 2005; 876).

The cause of poverty, especially in Sub-Saharan Africa, is multidimensional and not merely restricts itself to scarcity of resources and natural vulnerability. It also includes sense of powerlessness and lack of participation in one's community and decision making, low capacities and the inability to be listened to, limited livelihood opportunities and other constraints related to production, distribution, and institutional and policy factors. Institutional and policy factors imply weak formal state institutions resulting in poorly designed and implemented policies and inadequate service delivery (Geoff et al., 2009).

Moreover, Geoff et al (2009) claim that in the distribution of resources, rulers may operate under the auspices of informal norms and discriminatory practices based on religion, ethnicity, regionalism or tribalism. Informal networks of influential people often influence decisions that affect poverty reduction. In addition, implementation of policies by public bureaucracies that run counter to elite interests is likely to create delays.

Despite the multi-dimensional nature of poverty that differs across different societies, poverty analysis has continued to be dominated by an income/consumption conception of poverty. According to Maia and David (2005; p.876), frameworks based on the understanding of poverty reduction as linearly increasing household income or consumption through economic growth are unlikely to generate development policies and mobilize public action that can adequately tackle the underlying causes of poverty. Although economic growth is a necessary condition, it is not sufficient to achieve poverty reduction.

Consequently, many contemporary definitions of poverty go beyond income based definitions. The features of poverty are not only viewed as income deprivation (ill being) but also viewed as well-being which includes political-economic inter-linkages and cultural definitions of poverty. Therefore, understanding a clear picture of poverty requires an emphasis on the inter-play of economic and socio-political institutions (Anthony, 2006). Hence, poverty related studies are interested in mixing methods, reflecting the cross-disciplinary nature of poverty to accept and promote cross-disciplinary approaches which imply openness to the use of all available insights to gain a better understanding of the phenomena” (Nicola and Andy, 2007; 5).

According to MOFED (2006), the Ethiopian Government devised its Poverty Reduction Programs to insure that poor people become the main beneficiaries of economic growth. It also claims improvements in institutional efficiency, and empowerment of the poor and in setting frameworks that provide an enabling environment for poverty reduction.

Poverty in Ethiopia, like in other Sub-Saharan African states, is persistent, widespread and dominantly structural. The poverty situation in Ethiopia exhibits a number of unique features and characteristics that reflect the dynamics of population growth, the distribution of opportunities, and

subsistence dominated agricultural sector, and a policy environment that hampered the realization of the economic potentials of the nation (World Bank, 2005). Despite a robust economic progress in recent years, problems related to inequity in resource distribution, production inefficiency, manipulation and misuse of anti-poor programs for personal benefit, and weak institutional arrangements and bureaucratic hurdles have all exerted adverse influence on economic growth (Moges, 2008).

Dire Dawa is one of the regions in Ethiopia where urban poverty is expected to prevail with the aforementioned features. In absolute terms, the greatest numbers of poor people live in the “marginal areas” who are engaged on petty trade & informal trade (DDAEP, 2011, 68). Similar to the other parts of Ethiopia, gender inequality and discrimination are said to have a long and deep rooted history in Dire Dawa where women and neglected groups suffer from deprivation of basic rights (intentionally or unintentionally), such as education, employment, property ownership and even making decisions on family planning matters. This situation pertains in spite of the constitution (Art. 35 No.1-9) which stipulates the equal rights of all people in family and development activities (Tewdros and Girma, 2008; 14).

Hence, we can infer that despite recent economic development and poverty reduction efforts at national level in general and Dire Dawa in particular, the number of women and neglected groups living in poverty is not declining in absolute term. According to Harriss (2007), one of the major reasons for the existence of this problem is failure to address the socio-political situations including the dynamic, structural, institutional and relational factors that give rise to poverty.

Therefore, the level of poverty and the nature of people living in poverty in Ethiopia calls for a deep analysis of the nature of poverty and how policy measures are taken for poverty reduction. In order to comprehend issues that are pertinent to poverty and its eradication in Dire Dawa, it is



necessary to make an analysis of the underlying political-economic forces that shape state decision-making, policy-implementation processes and its capacity to address distributional and poverty reduction objectives. Understanding of poverty should go beyond measurement-led conceptualizations to adequately expose the causes of poverty. Accordingly, this study uses a political economy approach to understand whether the nature of poverty in the city is embedded within socio-political institutions and economic structures.

### ***Research Questions***

- What do the features of poverty in Dire Dawa look like?
- What do the poor think regarding the main causes for their impoverishment?
- Do poor people believe that there is equitable benefit distribution and are they on the path of being beneficiaries of the recent economic growth? If not, why?
- Do the poor have difficulty to access economic resources because of cultural, gender, religious or other reasons?
- Is there enabling institutional environment that empower the poor to participate in decision making of poverty reduction policies and programs?
- How poverty reduction programs are devised and benefits are distributed by the administrative bodies and stakeholders?

Keeping these questions in mind, the general intention of this inquiry is to approach and study the features of poverty in Dire Dawa in socio-political economy perspectives and assesses poverty reduction programs in the city. Specifically, in this inquiry, attempts were made to:

- examine the nature and causes of poverty in Dire Dawa and discuss the plight of the poor,

- analyze whether poverty in the city emanates from in the working of socio-political institutions and economic structures, and
- assess the performance of poverty reduction programs in Dire Dawa in view of the nature of poverty in the city and demand of the poor

## **2. Research Methodology**

### **2.1 Type and Source of Data**

This research follows a political economy approach in the sense that it is a multi-disciplinary study that combines socio-political and economic aspects. Therefore, it employed a mixed method that highlights and reconciles the advantage of both qualitative and quantitative research methods. The importance of this method lies in the fact that, on the one hand it avoids the limitations of quantitative research studies of the economist approach that downplays the institutional spheres, opinions and perceptions of research participants and on the other hand avoids the partiality limitation of the qualitative method. Moreover, mixed-methods evaluations can be conducted under a constrained budget to have a sample large enough to cover at least the primary heterogeneity in the population and in project impacts that are of interest.

With regard to the source of data, both primary and secondary sources were used. The primary data was collected from selected respondents/households as well as Government and NGOs officials of Dire Dawa; whereas the secondary data was extracted from publications of all the possible institutions dealing with the issue under consideration which include the Central Statistical Agency, National Bank of Ethiopia, Dire Dawa Administration Office (Bureau of Finance and Economic Development) and different non-governmental organizations.

## 2.2 Sampling Design

This study generally focuses on aspects of poverty and hence the major elements of the population considered for this study primarily include poor households living in the urban sector of the Dire Dawa Regional Administration. These individuals were identified with the help of Kebele administrations, and NGOs which are established for pro-poor relief and charity activities. Accordingly, three Kebelles where the majority of poor households are found were purposively selected. These include Kebele 09, kebele 02 and kebele 06 which are ranked first, second and third in terms of prevalence of impoverished households (Zerihun, 2013). From these Kebelles, 80 economically poor households were selected proportionally, using a purposive sampling method. A purposive sampling method was used because it was difficult to get a sampling frame of poor households to apply random sampling. However, efforts were made to make the sample as representative as possible taking proportionality of the sample among the three selected Kebelles.

The procedure of sampling of poor households is indicated in Table 1. The table shows that, according to Zerihun (2013), the estimated total number of households in Kebelles 02; 06 and 09 in 2008 were 9087; 4372, and 6599, respectively. Given this and based on the poverty head count ratio, the total number of poor households was estimated to be 2726; 2492, and 3299, respectively. Hence, the proportion and number of selected households are 0.32 (26), 0.29 (23), and 0.39 (31), respectively.

In addition to these poor households, for the sake of comparison of the socio-political situations and factors of poverty using quantitative analysis, 80 non-poor households were selected proportionally from 3 Kebelles where the number of poor households is relatively lower. According to Zerihun (2013), kebelles 03; 08 and 04 are ranked to be first, second and third in terms of absence of poor households.

**Table 1: Total and selected sample households**

Kebelle	Total households	Head count ratio of poverty	Poor households	Sample proportion	Selected sample
02	9087	0.3	2726	0.32005344	26
06	4372	0.57	2492	0.292574	23
09	6599	0.5	3299	0.38737256	31
Total			8517	100	80

*Source: Extracted from Zerihun (2013) and own computation*

The procedure of sampling of the non-poor households is indicated in Table 2. The table indicates that estimated total number of households in Kebelles 03; 04, and 08 are 4050; 5540, and 4750, respectively, in 2008. Hence, using the proportion of non-poor households, which is derived from the head count ratio, the estimated number of non-poor households in these three Kebelles was found to be 3726; 3989, and 4132, respectively. Using a similar approach, the proportion and number of selected sample households are 0.31 (25), 0.34 (27), and 0.35 (28), respectively.

**Table 2: Total population and selected sample of non-poor households**

Kebelle	Total population	Head count ratio of poverty	Non-poor ratio	Non-poor households	Sample proportion	Selected sample
03	4050	0.08	0.92	3726	0.314502038	25
04	5540	0.28	0.72	3989	0.336684308	27
08	4750	0.13	0.87	4132	0.348813654	28
Total				11847		80

*Source: Extracted from Zerihun (2013) and own computation*

While selecting the sample from each category, the level of per capita consumption of the selected households under each group (both the poor

and non-poor) was critically checked and compared to the national poverty line. The national poverty line during 2006 was 2406 Birr per year (MoFED, 2006/07, cited in Zerihun, 2013). This poverty line was adjusted to the annual inflation rate of Dire Dawa until 2012, as shown below. Finally, it was found out that the poverty line in Dire Dawa during 2012 was 7432 Birr per year. Hence, the monthly poverty line during 2012 was 619 Birr. Households are considered to be poor if per capita consumption falls below 619 Birr per month.

**Table 3: Poverty line computation in Dire Dawa**

Year	Annual Inflation rate in Dire Dawa	Added due to inflation	Poverty line
2006			2406
2007	17.5	421	2827
2008	36.5	1031	3858
2009	13.5	520	4378
2010	7.7	337	4715
2011	24.7	1165	5880
2012	26.4	1552	7432

*Source: MoFED, 2006/07 and own adjustment*

In addition to the sample households, concerned government officials and top managers of NGOs were consulted in order to extract qualitative information about the performance of the political economy sphere of poverty reduction policies.

### **2.3 Methods/Strategies of Data Collection**

To collect both the quantitative and qualitative data, we used sequential procedures beginning with a quantitative method in which theoretical questions were evaluated and followed by a qualitative method involving detailed exploration using a few cases. The methods of data collection

employed in this inquiry include questionnaires, focus group discussions, interviews and observations.

## **2.4 Methods of Analysis**

This study took into account quantitative and qualitative ways of analysis. The details of analysis in line with each specific objective of the study are stated as follows.

- i) To examine the nature and causes of poverty, both qualitative (descriptive) and quantitative ways of analysis were employed to consider current and past personal aspects of the poor. In line with this, all the possible factors (including the socio-political factors) which are expected to impoverish the people were critically treated using simple descriptive statistical tools, literature reviews and/or theories. These variables include demographic composition of the poor households, family background of the poor, the current relation of the poor to the whole society, the way the poor are treated by the whole society and elites, access of the poor to different socio-economic resources, and similar aspects were considered with the help of well-designed questionnaires.
- ii) In addition, a quantitative method of analysis, specifically binary choice econometric model (Probit regression) was used to identify the major socio-political factors of poverty, taking the probability of being poor as a dependent variable. Functional specification of the Probit, binary econometric regression is formulated as shown below.

Suppose we want to explain a household is either poor or not. This can be explained using the households' level of per capita consumption which is either less than or greater than the poverty line. These households' economic status is described as;

$y_i = 1$  if the household is poor (households' per capita consumption is less than the poverty line)

$y_i = 0$  if the household is non-poor (households' per capita consumption is greater than or equal to the poverty line)

Following Verbeek (2004), in order to explain  $y_i$  using explanatory variables, we can use a linear regression of the form:

$$y_i = x_i B + e_i \quad (1)$$

Where:  $y_i$  is vector of poverty dummy with value of 1 or 0.  $y_i = 1$  if the household  $i$  is poor

whereas  $y_i = 0$  if household  $i$  is non-poor

$x_i$  represents all the factors (including the socio-political factors) which are expected to affect  $y_i$

$B$  is vector of coefficients of the regressors

$e_i$  is vector of the error term

Because  $y_i$  has only two possible outcomes (0 or 1), the error term, for a given value of  $x_i$ , has two possible outcomes as well. In particular, the distribution of  $e_i$  can be summarized as;

$$P\{e_i = -x_i' B / x_i\} = P\{y_i = 0 / x_i\} = 1 - x_i' B \quad (2)$$

$$P\{e_i = 1 - x_i' B / x_i\} = P\{y_i = 1 / x_i\} = x_i' B \quad (2')$$

This implies that the variance of the error term is not constant but dependent upon the explanatory variables according to  $V\{e_i | x_i\} = x_i' B(1 - x_i' B)$ . Note that the error variance also depends upon the model parameters  $B$ . To overcome the problems with the linear model, there exists a class of binary choice models (or univariate dichotomous models), designed to model the 'choice' between two discrete alternatives. These models

essentially describe the probability that  $y_i = 1$  directly, although they are often derived from an underlying latent variable model. In general, we have:

$$P\{y_i = 1 / x_i\} = G(x_i, B) \text{ for some function } G(.) \quad (3)$$

This equation says that the probability of having  $y_i = 1$  depends on the vector  $x_i$  containing individual characteristics. Clearly, the function  $G(.)$  should take on values in the interval  $[0, 1]$  only. Usually, one restricts attention to functions of the form  $G(x_i, B) = F(x_i' B)$ . As  $F(.)$  also has to be between 0 and 1, it seems natural to choose  $F$  to be some distribution function. Common choices are the standard normal distribution function.

$$F(w) = \phi(w) = \int_{-\infty}^w \frac{1}{\sqrt{2\pi}} \exp\left\{-\frac{1}{2}t^2\right\} dt \quad (4)$$

This leads us to the so-called Probit model.

Here, in this particular study, we have used the probability of being poor,  $P(y_i = 1)$  as a dependent variable, for the sake of ease of analysis.



**Table 4: Descriptions of variables in the model**

Name of the variable	Type of the variable	Description	Expected relationship with the dependent variable
The probability of being poor (Dependent Variable)	Probability	Probabilistic that takes values between 0 and 1	-
Sex of household head	Dummy	0 for female and 1 for male	Female headed households are relatively more exposed to poverty than male headed households (Andersson et al., 2006).
Age of household head	Continuous	Continuous	Age is positively related with income (Hartog, n.d.). Hence, as age of household head increases the probability of being poor reduces.
Education level of household head	Continuous	Years of education were considered	As the level of education increases the probability of being poor reduces (Andersson et al., 2006).
Family size	Continuous	Continuous	As family size increases, the probability of being poor increases (Andersson et al., 2006).
Economic back ground of the household <sup>7</sup>	Dummy	1 for very poor, 2 for poor, 3 for good, 4 for very good economic back ground.	Theory of vicious circle of poverty states that if the back ground of the household is poor, the probability of being poor increases (Mosley and Verschoor, 2003).
Number of better off kin relatives	Continuous	Number of better off kin relatives of the households around the area was	Access to financial resources is meant to reduce poverty (Quach et al., 2005). Hence, as the number of better off kin relatives of a household increases, its probability of being poor reduces since the household has good opportunity to access resources from relatives.
Idir or Jema'a membership	Dummy	1 for members and 0 for non-members	Social interaction is considered to be a means of households' aspiration (Macours and Vakis, 2006). Hence, being member of Idir/Jema'a is expected to reduce the probability of being poor.

<sup>7</sup> Likert type rating scale was used to measure economic background of the households and their interaction with better off people. The respondents were asked to specify their previous economic status 20 to 30 years ago; and their interaction with the better off people.

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Interaction with better off people	Dummy	1 for very poor interaction, 2 for poor interaction, 3 for good interaction and 4 for very good interaction	If a household has very good/good interaction with economically better off people, its probability of being poor reduces (Macours and Vakis, 2006)
Access to credit	Dummy	1 for those who have access and 0 for not having the access	Access to credit is expected to reduce the probability of being poor (Quach et al., 2005).
Number of children	Continuous	Continuous	As number of children increases, the probability of being poor increases due to dependency (Andersson et al., 2006)
Number of sources of income	Continuous	Continuous	Increase in number of sources of income is expected to reduce the probability of being poor (Tsai, 2011)
Place of origin of the household head	Dummy	1 for Dire Dawa and 0 for other places	Migration is expected to increase the probability of being poor (de Haan and Yaqub, 2008).
Discrimination	Dummy	1 if discriminated and 0 otherwise	Discrimination as the result of poor governance over access to resources and information is expected to increase the probability of being poor (Addae-Korankye, 2014).
Loss of parents	Dummy	1 for who lost and 0 otherwise	Loss of parents is one of the reasons for children to live on street. Hence, we expect that it increases the probability of being poor.
Loss of assets	Dummy	1 for who lost and 0 otherwise	We expect that substantial loss of assets due to different reasons such as accidents (like flood which is common in Dire Dawa) increases the probability of being poor

- iii) To assess the performance of poverty reduction programs in Dire Dawa in view of the nature of poverty in the city and policy demand of the poor, descriptive and qualitative ways of analysis were employed, making use of in-depth interviews and focus group discussions. This was carried out to consider of the mechanisms of helping the poor and major achievements by the poor due to the existence of the programs. This analysis was carried out based on Sustainable Livelihood Approaches (SLA).

Sustainable Livelihood Approaches (SLAs) are among the several methods that have been developed to address the challenges posed by the multi-dimensional nature of poverty. These have gained wide recognition among development practitioners and researchers (Foresti et al., 2007). The Sustainable Livelihoods Framework was considered a suitable approach in analyzing and researching poverty, and the framework is people-centered, holistic in approach, dynamic and it acknowledges that the poor have answers to their problems (Walter et al., 2004).

SLAs foster a multi-dimensional approach to poverty analysis and reduction, and can be used to analyze how interventions tackle the non-material dimensions of poverty, contribute to strengthening a household's asset portfolio, enhancing their livelihood options and enhancing their wellbeing (Ludi & Slater, 2007). The approaches of SL have the objective of constructing a framework that allows for the identification of main capitals and the interactions among them. These approaches usually have a theoretical and methodological proposal for deployment, relying largely on participatory methods (Farrington et al., 1999). Since the beginning of the concept of sustainable livelihoods, it has been largely taken by several social organizations as a development strategy to support the eradication of poverty (Krantz, 2001).

Within the socio-political perspective, it looks at differences in access to power and social groups, the value attributed to livelihood assets and outcomes and nature of social organization in existence. The role and performance of institutions is also considered important, and especially the governance structures, policy making processes and the extent to which they influence decisions at the household level. The economic environment within which people operate is also considered with a major focus on assets, consumption and pricing. The primary objective is to explain what poverty is, who attempts to get out of it and how, who succeeds and who fails, and why (Walter et al, 2004)

NADEL & SDC (2007) also stress that SLA can enable agencies to develop flexible and locally appropriate responses to risk, vulnerability and poverty and can provide the evidence and analysis necessary for the prioritized and strategic selection of interventions at multiple levels. Entry points for poverty relevant development measures can be related to (i) promoting and implementing poverty oriented policies, (ii) initiating and supporting pro-poor institutional change, (iii) enhancing the capabilities of poor people, (iv) facilitating access to existing opportunities, and (v) reducing exposure to risks and reducing poor people's vulnerabilities.

Therefore, this study follows a Sustainable Livelihoods Framework in researching and analyzing the nature of poverty, and examining the implications of Pro-Poor Policy Intervention and the Performance of Concerned Actors on Poverty Reduction Activities in Dire Dawa. Pro-poor activities encompass, among others, policy objectives and goals, the major targeted areas and sectors for the achievement of the objectives and goals, the roles and responsibilities of administrative institutions to realize these objectives and goals, the institutional set-up and governance arrangements that determine the effectiveness and efficiency of these activities.

### 3. Results and Discussion

#### 3.1 Overview of Features of Selected Poor Households in Dire Dawa City

##### 3.1.1 Demographic features of selected sample poor households

Table 5 presents demographic features of the selected sample poor households in the city of Dire Dawa. The table shows that about 57% of household heads of the poor are female. This reveals the fact that female headed households are more prone to poverty than male headed households. The table also indicates that mean family size of the poor households is 5 members; and the mean number of youth within the poor households is 2. The maximum family size and number of youth of the poor households reach 10 and 7, respectively. As indicated in the table, the mean dependency ratio of these selected households was found to be 0.44 which is large, implying that 100 individuals, in addition to themselves, should feed another 44 individuals.

**Table 5: Demographic Features of Selected Sample of Poor Households**

Sex of household head		Family size			Number of youth with age < 15 in the households			Dependency ratio		
Male	Female	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
24	46	1	10	5	0	7	2	0	1	0.44
42.5%	57.5%									

Source: Own computation, 2014

##### 3.1.2 Source of Income and Percapita Consumption of the Selected Poor Households

35% of household heads of the selected poor households are unemployed as indicated in Table 6. Of the 65% employed individuals, the majority (28.75%) are engaged in self employment which is subject to disguised unemployment; 18.75% are employed in private businesses. Only 12.5%

and 2.5% are employed in government and Non-governmental Organizations, respectively; which are expected to have secured jobs.

Increasing the number of source of income is expected to be one of the means of reducing reduce household poverty. Table 6 shows that the majority of the households (58.75%) have only 1 source of income; 36.25% have 2 sources; only 2.5% have 3 sources, while 2.5% do not have any source of income at all and rely on gifts from others to sustain their lives.

**Table 6: Occupation, Source of Income and Percapita Consumption of the Selected Poor Households**

Occupation			Number of sources of income			Monthly percapita consumption of the households (Birr)		
			Sources	Number	percentage	Min	Max	Mean
Unemployed	28	35%						
Government employee	10	12.5%	0	2	2.5%	87	610	380
Private employee	15	18.75%	1	47	58.75%			
NGO employee	2	2.5%	2	29	36.25%			
Self employed	23	28.75%	3	2	2.5%			
Other	2	2.5%						
Total	80	100%						

Source: Own computation, 2014

As indicated in Table 6, the mean monthly percapita consumption of these selected households is 380 Birr, which is less than the poverty line (i.e. Birr 619) by 239 Birr. This gap is 39% percent of the poverty line. Estimated number of poor households in the urban area of Dire Dawa reached 15208 in 2008 (Zerihun, 2013). According to the Central Statistical Agency's 2007 census, the total number of urban households was 53602. This implies that if the number of households remained the same in 2008; 28% of the households are poor.

As indicated above, the mean family size of the poor households is 5; hence, about 76040 individuals were expected to live in poverty in the urban area of Dire Dawa during 2008. If we multiply the poverty gap, i.e. 239 Birr by the number of poor people (i.e. 76040), about 18, 173, 560 Birr is required monthly to make the urban poor get out of poverty.

### 3.1.3 Background of the Selected Poor Households

Table 7 shows that place of origin of the majority of the poor households, 81.25%, is out of Dire Dawa. Based on own judgement of the selected poor households, previous economic background of 31.25% and 25% of these households is very low and low, respectively. In other words, more than 56% of these households used to have poor economic background in the past. As indicated in the Table, more than 43% (28.75% + 15%) of these households had a prosperous economic background in the past. This implies that there is a significant number of households which is facing a downfall in living conditions even if the country is said to register higher rate of economic growth.

**Table 7: Background of the Selected Poor Households**

Place of Origin			Previous Economic Background of the households		
Dire Dawa	15	18.75%	Very low	25	31.25%
Out of Dire Dawa	65	81.25%	Low	20	25%
Total	80	100%	Higher	23	28.75%
			Very Higher	12	15%
			Total	80	100%

*Source: Own computation, 2014*

### 3.1.4 Social Interaction and Participation of the Selected Poor Households

Interaction and participation of the people in various socio-economic and political activities is expected to be one of the major factors to access

economic resources as well as information. Hence, it is important to see the extent to which the selected poor households are interacting and participating in such activities. As indicated in Table 8, more than 53% of these households are members of Idir or Jema'a having interaction with the surrounding people. There are still more than 46% of these households who do not have any social interaction even with the surrounding people. Some of the reasons for these individuals not to participate in such local institutions are lack of interest of the households, and plans to live in the surrounding place for a long time, absence of permanent residence, and lack of sufficient income to register into the institutions.

Membership in Idir or Jema'a may not reflect the interaction of the poor with the society at large since these institutions may be established by the poor themselves. Hence, the selected sample households were made to mention their judgement about their interaction with economically better people in the surrounding area. Table 8 indicates that more than 63% (32.5% + 31.25%) have poor interaction with better off people, which may deny them access to resources and opportunities. Only about 36% of these households were found to have better interaction with better off people in the surrounding area. The main reasons for the majority of them not to interact with better off people include: lack of interest of the poor households; economically better off people are said to stigmatize the poor; lack of time as the poor spend more time to earn only a small amount of income; and lack of chances for such interaction.

**Table 8: Social Interaction and Participation of the Selected Poor Households**

Membership of Idir or Jema'a			Interaction with economically better off people			Number of kin relative households in the surrounding area		
Member	43	53.75%	Very lower	26	32.5	0	36	45%
Not Member	37	46.25%	Lower	25	31.25%	1	29	36.25%
Total	80	100%	Higher	29	36.25%	2	15	18.75%
			Total	80	100%	Total	80	100%

Source: Own computation, 2014



The other important issue related to social interaction is whether the poor households have relatives with better off economic status. As indicated in Table 8, about 45% of the selected households do not have such relatives at all. 36.25% and 18.75% of these households stated that they have 1 and 2 relative households, respectively, with better economic status. Generally, it can be concluded that in most situations, the poor households have little interaction and participation in the social affairs.

### **3.1.5 Lack of Access to Resources and Bias Facing the Selected Poor Households**

Table 9 presents the type of settlement of poor households, the extent of their access to credit and extent of threat of biases from political elites. The table shows that more than 68% of these households have legal settlement, but there are still more than 31% of households with illegal settlement. Theories and empirical assessments show that illegal settlement is one of the major reasons which is leading the poor to lack access to various public services and resources. Hence, more than 31% of these households are expected to lack these services. The major reasons for having illegal settlements are migration from other places, lack of sufficient income to get legal houses, and construction without permission of the Kebele administrations.

The table shows that, even if there are microfinance and other related credit and saving associations, more than 73% of the selected poor households said that they do not have access to credit. This is among the major challenges facing the administration to improve the livelihood of the poor. The households say that the major reasons for their lack of access to credit include: lack of interest, fear of risks and higher rate of interest, absence of collateral, and lack of ideas to use capital.

**Table 9: Settlement, Access to Credit and Extent of bias from Political Elites**

Type of Settlement the Household			Access to Credit			Biasness from Kebele or Related Administrators			
Legal	55	68.75%	Have Access	21	26.25%	Faced bias	13	16.25%	
Illegal	25	31.25%	Have not access	59	73.75%	Did not face bias	67	83.75%	
Total	80	100%	Total	80	100%	Total	80	100%	

Source: *Own computation, 2014*

Even when resources are available to the people based on pro-poor supportive activities, there may be bias from political elites in favor of better off people due to corruption and related practices (TI, 2008). Cognizant of this, the selected poor households were made to said whether they face bias from political elites. Table 9 shows that about 16% of the households said that they usually encounter such a problem. These households stated that they could not get land due to corruption; there was no justice to solve problems and political elites give priority to provide resources for those members of their political party; the bureaucratic system discourages them to access resources, and there was sometimes lack of cooperation while providing services. However, majority of the households (83.75%) indicated that they do not face such problems. Hence, we expect that there is minimal bias of resource sharing.

Loss of assets and parents are the major factors leading previously better off people to be impoverished. Keeping this in mind, the households were asked to state whether they lost their assets/parents. As indicated in Table 10, half of the selected households lost assets which exacerbated of their impoverishment. Some of these households stated that the major reasons for losing their assets were floods in the city, drought for migrants from rural areas, poor justice system, war, and unfair market competition. Table

10 shows that the majority of the selected households (57.5%) lost their parents (previous household heads).

**Table 10: Loss of Asset and Parents**

Loss of Assets			Loss of Parents		
Lost	40	50%	Lost	46	57.5%
Did not lose	40	50%	Did not lose	34	42.5%
Total	80	100%	Total	80	100%

*Source: Own computation, 2014*

### 3.2 Socio-Economic Factors and Determinants of Poverty

#### 3.2.1 Ranks of the Major Socio-Economic Factors of Poverty

As this inquiry focuses on socio-political aspects of poverty, the major socio-political factors which are expected to impoverish or exacerbate impoverishment of the people were mentioned to the selected poor households to rate each factor in terms of its severity using their own judgement. Based on that it was possible to rank the factors according to their severity. The selected households rated these factors using Linkert scale<sup>8</sup> (with qualitative rating of four options including “Strongly Disagree”, “Disagree”, “Agree” and “Strongly Agree”). Ranks of the major expected factors based on the judgement of the households are indicated in Table 11.

As indicated in Table 11, according to the aggregate rating of the households, poor economic back ground of the households, lack of access to resources and information, lack of skills of work, absence of better off relatives in the surrounding area, loss of parents and loss of assets were identified to have scale of greater than 2 implying that they are confirmed to be the major factors to impoverish the households. Of these factors, poor economic background of the households is ranked first followed by

<sup>8</sup> The Linkert scale rating was carried out in such a way that the four options were given scale of 1, 2, 3 and 4 for “Strongly Disagree”, “Disagree”, “Agree” and “Strongly Agree”, respectively.

lack of access to resources and information and lack of skills of work with ranks of second and third, respectively. Loss of parents, absence of better off relatives and loss of assets were ranked from fourth to sixth, respectively.

**Table 11: Major Socio-economic Factors of Poverty**

Factors	Scale	Rank
Poor economic background	2.733	1
Lack of skills	2.64	3
Lack of good health	1.7733	10
Absence of social interaction with better of people	1.906	7
Lack of access to resources	2.706	2
Unwise use of resources	1.84	8
Absence of kin relatives	2.146	4
Migration	1.8	9
Loss of asset	2.08	6
Illegal settlement	1.226	12
Loss of parents	2.146	4
Discrimination	1.733	11
Climate/weather condition	1	13

*Source, Own computation, 2014*

The other factors got aggregate scale of less than 2; which are ranked from seventh to thirteenth as absence of social interaction with better off people, unwise use of resources, migration, lack of good health, discrimination in resource sharing, illegal settlement of the households, and unfavorable weather conditions.

### **3.2.2 Econometric Analysis of Socio-Economic Determinants of Poverty**

In addition to the qualitative investigation of identifying the major socio-political factors of poverty a binary choice econometric regression model (specifically Probit regression model) is also applied. In order to carry out this, 80 non-poor households were selected for the sake of comparison to

figure out important variables. In this model, dummy variable of economic status (poor and non-poor) was taken as a dependent variable (where poor = 1 and non-poor = 0). The major socio-political factors which are expected to influence the living condition of the people were taken as regressors of the model. Most of these variables are those which were considered in the preceding session.

Results of the Probit regression are presented using Table 12. Table 12 shows that the total number of observations used for this analysis is 160 (80 poor and 80 non-poor households). As indicated in the table, the wald chi2 is 84.05 where the prob> chi2 = 0.0000 indicating that the variables in the model are jointly significant to influence the dependent variable. The Pseudo R2 = 0.6784 implying that the model fits well to the extent that more than 67 percent of the variation in the outcome variable is explained by the variables in the model.

In this model, we have considered 15 regressors till the model fits well with the data. Of these variables, 11 were identified to be significant to affect the dependent variable. The significant variables include sex of the household head, age of the household head, level of education, family size, very poor previous economic background of the households, number of better off relatives that the household has in the surrounding place, very poor and poor interaction with better off people, access to credit, number of source of income, loss of assets.

The regression result indicates that the probability of being poor increases by 40% if the household head is female at 1% level of significance. In other words, this implies that female headed households are more exposed to poverty than that of male headed households. On the other hand, as age of the household head increases by a year, the probability of being poor is reduced by about 1%, at 10% level of significance.

**Table 12: Socioeconomic Determinants of Poverty (Result of the Probit Regression)**

Variables	Coefficient	Marginal Effect	Robust Standard Error	Z-statistic	P-value
Sex/Female of household head	1.062878	0.4043718	0.3244961	3.28	0.001
Age of household head	-0.0238116	-0.0094739	0.0129813	-1.83	0.067
Education level of household head	-0.4645207	-0.1848186	0.0960568	-4.84	0.000
Family size	0.2025156	0.0805748	0.1189764	1.70	0.089
Background/very poor	0.644721	0.2517931	0.3366	1.92	0.056
Background/poor	-0.0495898	-0.019714	0.4166705	-0.12	0.905
Number of relatives	-0.3322985	-0.1322114	0.137442	-2.42	0.016
Membership of Idir	-0.1791035	-0.0712937	0.3579832	-0.50	0.617
Interaction with better of people/very poor	1.558464	0.5244621	0.4511811	3.45	0.001
Interaction with better of people/poor	1.346397	0.4806573	0.5502562	2.45	0.014
Access to credit	-0.8678124	-0.3340557	0.325548	-2.67	0.008
Number of children < 10	0.020717	0.0082427	0.1781371	0.12	0.907
Number of income source	-0.5968283	-0.2374597	0.2746798	-2.17	0.030
Place of origin	0.5584194	0.2155657	0.4145791	1.35	0.178
Discrimination	0.5015556	0.1964508	0.4402481	1.14	0.255
Loss of parents	0.3255625	0.1289835	0.3664177	0.89	0.374
Loss of assets	0.8511259	0.329117	0.377115	2.26	0.024
Constant	1.549382	-	0.8424217	1.84	0.066
Number of obs =	160				
Wald chi2(15) =	84.05				
Prob > chi2 =	0.0000				
Pseudo R2 =	0.6784				

Source: Own computation, 2014

The result shows that as education level of the household head increases by a year (grade), the probability of being poor is reduced by 18%, at 1% level of significance. This result coincides with what we have in the preceding session that lack of skill is among the factors of poverty.

The probability of being poor increases by 8% as family size of the household increases by 1 person, at 10% level of significance; whereas having very poor economic background will increase the probability of being poor by 25% currently, at 10% level of significance. This variable was also stated to be among the major factors of poverty in the preceding descriptive analysis.

The result indicates that as the number of better off relatives of households in the surrounding area is higher by one, the probability of being poor is reduced by 13%, at 5% level of significance. This variable was also considered to be a factor of poverty in the qualitative analysis.

The result of the regression also shows that interaction with better off people can influence the probability of being poor. As indicated in the table, very poor interaction with better off people increases the probability of being poor by 52%, at 1% level of significance. Similarly, poor interaction also increases the probability of being poor by 48%, at 5% level of significance. As of the comparative analysis of the Probit regression, this variable was found to be significant even if it has got a scale of less than 2 in the preceding descriptive analysis.

Access to credit is the other significant variable to influence the probability of impoverishment. As indicated in the table, the probability of being poor is reduced by 33% as the people get access to credit at 1% level of significance. This result also coincides with our preceding descriptive analysis that lack of access to resources and information has a significant effect on the impoverishment of the people.

The result shows that as the number of source of income for the people increases by one, the probability of being poor is reduced by 23% at 5% level of significance; whereas loss of asset increases the probability of being poor by 32% at 5% level of significance. This result also coincides with our preceding descriptive analysis.

### **3.3 The Performance of Concerned Actors and Pro-Poor Policy Intervention: Implications on Poverty Reduction Activities**

#### **3.3.1 Overview of pro-poor activities in Dire Dawa**

Pro-poor activities encompass, among others, policy objectives and goals, the major targeted areas and sectors for the achievement of the objectives and goals, the roles and responsibilities of administrative institutions to realize these objectives and goals, the institutional set-up and governance arrangements that determine the effectiveness and efficiency of these activities. Accordingly, in this study, these points of the pro-poor activity framework were critically investigated and mentioned in details as follows.

##### **3.3.1.1 Policy objectives and goals**

Based on the qualitative data gathered from Dire Dawa city administration concerned sector bureau and office employee respondents, we can identify the following main policy objectives and goals in order to carry out the pro-poor activities in the city.

- i) To reduce the poverty level of the society to below 22 % at the end of Growth and Transformation Plan through an integrated approach which involves identifying unemployed individuals and skill gaps, provision of training and startup capital, market integration, and insuring continuous support.
- ii) To create jobs and employment opportunities for the jobless segment of the society thereby increasing their income. For the successful accomplishment of this objective, great emphasis is given to micro economy development and increasing the tax income of the city. In



addition, encouraging the private sector and enhancing investment in manufacturing industries is believed to be one means of increasing employment opportunities and increasing incomes of individuals.

- iii) To capacitate the unemployed people focusing on those under poverty line especially women, youth and disabled persons through providing different training, organizing the jobless in small scale enterprises and facilitating access of credit services and startup capital that help them involve in different income generating activities.
- iv) To ensure food security, access to drinking water, roads, housing, etc. for the poor through infrastructure development and provision of loans for food security programs and small scale business enterprises.

These objectives address some of the major significant factors of poverty which were identified and in the quantitative analysis. Specifically, these objectives intend to address the problems related to gender, the youth, education, access to resources, and source of income. However, the objectives seem to ignore some important significant factors which may retard the performance of the pro-poor activities unless they are also given due emphasis. These factors include kin-ship, social interaction, loss of assets, and family size. In other words, it is crucial to think about development of belongingness to each other and better social interaction, especially between the economically better off people and the marginalized poor individuals. Moreover, rehabilitation programs for loss of assets and family planning should also be given due attentions.

#### **3.3.1.2 Major targeted areas and sectors**

The qualitative data shows that the major targeted groups of the pro-poor policy intervention in the context of Dire Dawa include: women especially those who are under poverty line, unemployed youth and youth that are organized in small scale enterprises, children, and those who need special attention like disabled individuals. In relation to that, micro and small enterprises, saving and credit services, small scale trading and middle level

enterprises, infrastructure development programs, educational and health sector, manufacturing, construction, trade and urban agriculture, and women empowerment are the targeted sectors of the pro-poor policy intervention in the context of Dire Dawa.

Here again, in the targeted groups, the marginalized poor segment of the society and those who face loss of asset are not explicitly considered. With regard to the sectors, findings of this study show that those sectors which intend to enhance social development, rehabilitation programs and family planning are not explicitly indicated in the targeted areas/sectors.

### **3.3.1.3 The roles and responsibilities of city administrative institutions**

The role played by local institutions in poverty reduction is believed to have a significant contribution because of the fact that these institutions are the closest to local problems. Hence, it is essential to define the roles and responsibilities of administrative institutions and other stake holders and their interaction while dealing with the poverty reduction practices in line with the policy objectives and goals. In this respect, the majority of respondents assert that laws & regulations that state the roles and responsibilities of stake holders and their interaction while dealing with the poverty reduction practices in the context of Dire Dawa city has already been formulated and serving as a guiding reference.

The roles and responsibilities of local authorities in poverty reduction efforts in comparison with the higher level authorities include;

- identifying the poverty type and its nature, preparing a plan to curb poverty in line with the national strategy and in the context of local administrations,
- monitoring and evaluating the progress and taking appropriate measure,
- giving loans and credit services,

- facilitating and organizing micro-small scale groups,
- providing land for production and selling purposes,
- organizing and leading the local based micro enterprises and women unions and providing a conducive environment enabling them to attain higher levels of wealth,
- Empowering the poor through providing selective training depending on mini-researches that identified the job opportunities and facilitating startup capital through financial institutions as well as monitoring and evaluating cooperatives and individuals.

These roles and responsibilities of the local institutions are expected to enhance the effectiveness and efficiency of the poverty reduction activities provided that they are appropriately and genuinely practiced and implemented.

#### **3.3.1.4 Institutional set-up and governance arrangements**

With regards to the associated institutional set-up and governance arrangements in dealing with urban poverty reduction and employment creation, the city administration has established bureaus and sectors that deal with poverty reduction. The main government actors and city administrative institutions that intervene in the pro-poor policy comprises include:

- A. The Policy Study Bureau: The responsibility of the policy study bureau of the administration is to oversee the overall activity. It deals with identifying the problems related with poverty, providing technical support, TVET, and providing training, providing micro finance facilities. It has the forum to integrate the overall task of planning, implementing, and evaluating the programs in dealing with poverty. It has a structural pattern to organize women and youth in income generating activities like urban agriculture.

- B. Micro and Small Scale Enterprise Development Agency (MSEDA): MSEDA is organized under the Trade Industry and Investment Bureau and provides work premises, advice and consultation, collateral for loans, market linkage, and etc. There are also Kebele (one stop) level services under MSEDA.
- C. **TEVT:** mainly focuses on industry extension like Kaizen training both (technical and entrepreneurial), technology and MFI for finance.
- D. Early warning and food security offices
- E. Credit and saving enterprise
- F. Agriculture, mining and energy bureau
- G. Dire microfinance institution
- H. Bureau of women, children and youth affairs

In addition to this, government official say the administration's yearly activities work plan is designed in a way that allows each of the 12 bureau under the city administration to play their own roles towards poverty reduction taking poverty reduction goal as a special consideration. Moreover, all the regional bureaus in their own sectors plan to reduce the existing poverty level. Every year the administration report shows that the unemployment rate that exists. In this study, it is appreciated that the existence of such institutional set-ups as well as their integration and collaboration to deal with poverty reduction activities.

### **3.3.2 Power relations, decision making and implementation in policy processes**

One of the core considerations of this study is to analyze the nature of power relations, decision making and implementation in the process of making and implementing poverty reduction policies and strategies. These are explained as follows.

### **3.3.2.1 Power Relations**

Four areas were raised and studied to understand the nature of power relations in the poverty reduction policy making processes. These include: -

- the balance between public and private ownership in poverty reduction activities and the extent of participation of different interest groups outside government organizations such as the private sector, NGOs, consumer groups, and the media;
- the dynamics of partnership among the government, donor community and private sector in poverty reduction efforts;
- the discretions of private sectors and NGOs in dealing with poverty; and
- the existence of any established mechanisms for improved communication between government agencies, civil society and the private sector.

With regards to the balance between public and private ownership and participation in dealing with poverty, officials of government institutions agree that although the key actor is the government which takes the lion's share in policy making, the private sector, and NGOs also play significant roles. However, responses from private sector and NGOs assert that their role in policy making is more of nominal and the balance is biased towards public/government and the involvement of private owners and partners is not satisfactory. They remark that most of the development policy is designed in a top-down manner that all other stakeholders are given a limited space to contribute.

Whatever the case, all parties believe that the public mostly emphasize issues that deal with rules, regulations, policies and supervisory activities while the private sector and NGOs take a great share in the financing, implementation, and creating investment opportunities through establishment of industry and service sectors which create job opportunities.

Regarding the dynamics of partnership among the government, donor community and private sector, government officials admit that there is a partnership between the administration and these actors, and the administration is using this partnership to support efforts of the private sector and NGOs. Their partnership can best be expressed in that the planning, organizing, monitoring works are done together. Evaluation is also commonly performed and there are review meetings.

Government officials state that the private sector and NGOs have their own discretions in dealing with poverty which can be expressed in a way that they have their own source of finance and intervention area to invest. Private sectors are involved in employment creation using their own way of profit maximization whereas NGOs provide funds and technical assistance in their own way of maximizing satisfaction rather than profit making. However, officials from non-governmental institutions claim that there is limited partnership where they are not satisfied regarding their discretion.

Regarding the existence of any established mechanisms for improved communication between government agencies, civil society and the private sector as a means to promote accountability and encourage greater government responsiveness, the data shows that there are different established mechanisms. For instance, there is a regional initiative called GO-NGO forum established with an objective of facilitating shared learning among development partners. In addition, different civil societies such as federations (youth and women), and women development armies are established to contact government with the society including the poor to have a solution for their initial problems or challenges.

#### **3.3.2.2 Decision-Making**

There are different perspectives with regard to how decisions are made dealing with poverty reduction and the actors who are parties to these decision-making processes. From these perspectives, it can be inferred that

there are two ways of making decisions (i.e Top-down approach and Bottom up approach). Parties to decision making include government bodies, NGOs, private sector and civil societies, the poor who are beneficiaries, and the community at large.

In this study we have identified that, decisions are mostly made at higher levels. Top level management is in charge of making decisions related to poverty reduction while the role of the lower level management and stakeholders is limited to execution. However, the problems identified by the poor are the resources at hand on how to provide resources, and suggestion gathered from different stakeholder is the basis prior to decision making.

Regarding the extent of the participation of the poor in such decision making processes, it can be inferred that there are two ways in which that they get the chance to participate. The first is that they directly participate as the main source of information in problem identification, through giving feedback in evaluating the progress in the evaluation phase of projects, through direct discussion and consultation with and from concerned bodies. Secondly they participate indirectly through their representatives, i.e. women and youth, handicaps, social and labor affairs, and through a member of the council which is established by the members elected by the community including the poor.

However, some informants maintained that although concerned bodies consult the poor from the very beginning for certain programs that are going to be implemented, still the role of the poor has not been maximized in decision making. Moreover, the participation of the poor is nominal and most of the time the poor are consulted for reporting purposes only.

In understanding the root causes of poverty, it is very important to study the socio-cultural capabilities of the poor and their ability to participate as

valued members of the community indicated by social status, dignity and other cultural conditions. This is because most of the time the poor are marginalized from the society at large especially from better off societies, and social isolation by itself is the chief meaning of poverty for people in many local areas. As a result, they may lose those opportunities from which they get resources to improve their livelihood.

Government and NGO officials assume that there are mechanisms intended to enhance the social capabilities of the poor but the explanations given by the majority of them were not related with enhancement of social capabilities of the poor. Here, we were expecting mechanisms such as establishment of different forums that can connect the poor and the better off people so as to solve the problem of poverty and other common problems. Their explanation is related to those common activities such as provision of services including building schools and creation of job opportunities by the better off people, which may not be a means to create or improve social belongingness and capabilities of the poor.

### ***3.3.2.3 Implementation issues and service delivery***

The efficiency and effectiveness of delivering services is another area that establishes and determines the success or failure of poverty reduction efforts. In this regard, it is believed that conducting prior research study on poverty and formulating and implementing policies based on the research findings highly support poverty reduction efforts. In this regard, government officials were asked whether the formulation and implementation of poverty reduction policies are backed by research findings.

Although all of government official respondents maintained that the city administration undertook a study on the nature of poverty in the city, the majority of them maintain that they were not sure and/or had no idea to what extent pro-poor policies were formulated and implemented based on



research findings. Irrespective of the fact that some of the respondents claim that researches were made through establishing a technical team to study poverty reduction, the team produced a detailed study at a program level, in order to formulate different pro-poor projects.

Another area that affects the effective implementation of policies from a political economy perspective is to see if there was a tendency to discriminate beneficiaries on the basis of their social and cultural values during service delivery. Almost all respondents both from government and non-government bodies believe that the beneficiaries are all dwellers of the city without discrimination, unless they are restricted by law, no special attention was given to specific group. They noted that any Ethiopian or foreigner can get the services from the concerned office of the administration. Moreover, most of the projects were designed to bridge gaps in welfare so that there was no group excluded from being addressed. However, some of them admitted that although all the citizens were equally treated in service delivery as long as economic issue is concerned, there was some inclination 'to favour some ethnic group in political intervention as far as federalism is concerned.

### **3.3.3 Major challenges of the pro-poor activities**

Apart from the aforementioned issues, it is expected that there are a number of challenges that might be encountered while dealing with the pro-poor activities. Government and NGO officials identified the following major challenges in undertaking pro-poor activities in the city of Dire Dawa.

**Corruption and Rent Seeking Practices:** There are still the practices of corruption and rent-seeking. In government organizations, there is corruption in some service delivery areas such as tax collection, urban land development and distribution of residential houses, procurement, and allocation of jobs. In NGOs provisions of assistance fully reach the poor; and resources are provided on the basis of kinship.

**Change Resistance:** The existence of longstanding patronage networks involving public and private sector actors who are opposed to change has become an obstacle to achievement of poverty reduction goals. This refers to those who occupy positions to which they are not eligible and those who resist reforms since transparency exposes the working of their patrons and patronage system.

**Political and Institutional Impediments:** Political and institutional impediments and bottlenecks standing as barriers to the delivery and achievement of pro-poor policy objectives includes:

- lack of integration as needed
- the existence of selfish government and private workers
- Bureaucratic bottlenecks and Political membership
- Lack of cooperation especially in land development and large procurement areas in getting land for shelters and buildings in market places that can help the poor.

**Lack of Capacity:** There are failures and limitations to implement poverty reduction objectives due to lack of capacity or other reasons. The city administration could not solve to all problems because of lack of capacity including financial scarcity, weak leadership and managing capacity. Moreover, the supervisory works are not automated and the demand for support could not be matched with proportionate supply.

**Inefficiency and Ineffective Utilization of Resources:** There is inefficient and ineffective utilization of resources and difficulties to identify and give solutions to the root causes of the problems to be addressed.

#### **4. Concluding Remarks**

In this paper, in view of socio-political economy approach to poverty reduction, the nature of poverty in the context of Dire Dawa administration was comprehensively studied to pinpoint the multi-dimensional nature of poverty that needs to be noted in the achievement of poverty reduction goals. The discussions and analysis of the research covered a wide range of issues to understand the features of poor households, socio-political factors and determinants of poverty, and the performance of concerned actors and pro-poor policy interventions and their implications on poverty reduction activities in the city administration.

The research finding based on the quantitative analysis of data gathered from questionnaires administered to both poor and non-poor respondents clearly shows that the nature of poverty in the city has a multidimensional nature that needs to be understood in a socio-political economy context. This analysis attempted to figure out the root causes that had led a large segment of people to impoverishment. Such causes include gender inequality, demographic factors, lack of education or important skills, poverty background of the households, poor social interaction, poor kinship, lack of access to resources, and other threats. Hence, those pro-poor policy objectives and targeted areas should incorporate these factors among others.

In the qualitative analysis, it was identified that in Dire Dawa City Administration, there is a well framed institutional set-up as well as roles and responsibilities of stake holders to exercise the pro-poor activities, which is appreciated and should be kept improving. However, the power relations, participation and decision making among the public and other stakeholders do not seem to be balanced. This may affect achievement of the desired objectives of the pro-poor activities. Hence, this has to be improved to create a more balanced situation. Particularly, the poor for

whom the activities are carried out should be given much attention in both participation and decision making. Besides, so as to support the formulation and implementation of the pro-poor policies, appropriate empirical researches have to be conducted in order to check the effectiveness of those policies being practiced and identify areas of improvement.

Finally, from this study, we can understand that, in most cases, there is no ethnic or cultural discrimination as such in the practices of public, private and NGOs while providing resources to beneficiaries. However, there are different challenges that need due attention which otherwise may divert the efficiency and effectiveness of these activities. They include corruption and rent seeking practices, resistance to changes, political and institutional impediments, lack of capacity, and inefficient and ineffective utilization of resources.

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# Utilization of and Factors Affecting Individuals Saving in Ethiopia (The Case of Dire Dawa)

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## **Abstract**

*Ethiopia is currently implementing its growth and transformation plan to boost its economic growth overtime with the goal to join the middle income countries within few years. It is believed that this objective can be realized if the country can make substantial amount of investment in the economy. However, currently, much of the capital accumulation is brought about from foreign direct investment. The rate of saving in the country has been low. Heavy reliance on foreign capital may have adverse economic implication for sustainability of economic growth of the country in the future (Dixon and Boswell, 1996). In cognizant of this, this study was undertaken to investigate pattern of individuals' saving utilization using behavioral approach and to assess the role of concerned bodies/organizations in improving household saving; in the case of Dire Dawa City. The mainly used primary survey data on individual employees, and formal and informal financial institutions. Both descriptive and quantitative (probit and tobit econometric regression models) methods were used for the analyses. Findings show that rate of individuals' saving is very low and only small proportion of their existing level of saving is used for investment. Hence, efforts should be exerted to improve the rate of individuals' saving and its utilization for investment. Rise in prices of commodities (especially food items) is one of the main factors negatively affecting individuals' saving, implying that price stability measures should much target on food items, on which much of income of the individuals is spent. The quantitative analysis shows that marriage, use of planning for consumption, higher income earning, and responsibility to help others, and*

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*age of individuals can significantly and positively affect the rate of individuals saving. This implies people specially the youth should be encouraged to improve their sense of responsibility (which is reflected by marriage, use of planning and taking care of others) along with improving their means of earnings. Analysis on performance of formal and informal financial institutions indicates that only less than one third of the employees of the city use banks for deposit and there are serious complaints on the services delivered by the banks. Thus, much is expected from the banks and concerned stakeholders to enhance the use of banks by the people through improvement of quality of their services. The study revealed that huge amount of money exists under informal institutions like "Idirs" which could be converted into investment and capital formation although only small percentage of this potential capital is invested on business activities to date. Thus, concerned bodies should create mechanisms by which this potential is exploited for business investments.*

**Key words:** Individuals' saving, investment, determinants of saving, financial institutions

## **1. Introduction**

Ethiopia implemented the first Growth and Transformation Plan (GTP) since 2010/11 to enhance the rate of growth of the economy and become a middle income county by 2025. GTP 1 targeted to double the size of the economy or GDP within five years and reduce the level of poverty (FDRE, 2010).

This requires relevant development policies and resources. Among the crucial factors of economic growth and development, adequate domestic and external resource mobilization was found to be the major one (FDRE, 2010). Domestic resource utilization, probably related with the domestic saving of the nation, is recognized as the most basic macroeconomic variables (Pahlavani et al, 2006).

The Ethiopian rate of national saving particularly the individual saving is expected to be very low and this low level of national saving is expected to limit the expected rate of economic growth of the economy. According to Ministry of Finance and Economic Development (2010), one of the major challenges encountered in the past five years of PASDEP implementation is low level of domestic savings to support the huge demand of the country's investment for accelerating growth and development in the process of eradicating poverty. The national saving was 9% of GDP at the beginning of the growth and transformation plan in 2010/11. Because of the low level of saving, the national investment of the Ethiopia is dependent on foreign direct investment rather than domestic investment. Though, foreign direct investment has paramount importance on Ethiopian economic growth and development, its importance is less than the domestic investment.

According to Harrod - Domar growth model, with insignificant domestic saving, a country should look for foreign aids and debt (Todaro, 2000). In fact, the rate of domestic saving in developing countries including Ethiopia is believed to be insignificant. However, reliance on foreign aid and debt is not always imperative due to different socio-economic and political reasons. Therefore, it is believed that the pattern of domestic saving, particularly individuals' saving, in the country should change if higher rate of saving is required.

Improvement in individuals' saving behavior is believed to be a crucial element for economic growth. This is more fruitful if channeled to investment. In the process of channeling the domestic saving for investment, the role of financial institutions is valuable. According to Bairamli and Kostoglou (2010), strong financial institutions facilitate the flow of funds from savings to investments. They found that, even though the saving rate of Republic of Azerbaijan was high, due to the insufficient financial institutions, the high saving was not channeled to investment and this has retarded economic growth of the country. According to institutional

saving theory, the poor can save with institutional supports (Sherraden, 1991). Institutional features include access, information, incentives, facilitation, expectations, restrictions, and security (Beverly & Sherraden, 1999; Sherraden & Barr, 2005; Schreiner & Sherraden, 2007).

To this end, policy makers and concerned groups should exercise appropriate interventions for achievement of the goal of increasing individual saving. In consideration of this, these groups are expected to require reliable information regarding the existing situation pertinent to saving behavior of individuals as well as the existing role of concerned organs. However, there are no, yet, such studies undertaken related to saving, at household and individual level, in Ethiopia. The studies that have been undertaken so far usually focus on analysis of national saving at macroeconomic level.

Therefore, this study was undertaken to address those important aspects of saving empirically, using behavioral approach of individuals and households, taking the case in the city of Dire Dawa. The study investigated the existing saving behavior of individuals and possibilities of investment, the major possible factors which are expected to influence individuals saving and the role of concerned bodies in mobilizing saving and investment. Basic research questions of this study include:

- i) How does the existing extent of individuals saving look like?
- ii) To what extent do individuals make saving for investment?
- iii) How are individuals' savings being utilized?
- iv) What are the major determinants of individuals saving?
- v) What are the major challenges retarding the level of saving?
- vi) To what extent do concerned bodies facilitate saving mobilization and investment?

The general objective of this study is to investigate the existing saving behavior of individual and the role of concerned bodies to mobilize saving

and investment in the city of Dire Dawa City. Specifically, this study attempted:

- i. To explore the extent of individual saving and its utilization in the city
- ii. To identify the major determinants and challenges of the individuals' saving in the city
- iii. To assess the role of concerned bodies/organizations (such as formal and informal financial institutions) in improving the individual saving and its utilization in the city

## **2. Methodology**

### **2.1 Source & Type of Data**

The data used for this study are both from primary and secondary sources. The primary source of data involves surveys conducted on sample of employed individuals, private banks, and informal financial institutions (Idirs), found in the city of Dire Dawa. This primary data is cross-sectional type which includes both qualitative and quantitative information. The secondary data source includes published & unpublished documents, internal reports, scientific journals, proceedings, books and literatures related to the inquiry.

### **2.2 Sampling Technique**

As indicated above, the primary data was collected from surveys conducted on sample of employed individuals, private banks and informal financial institutions (Idirs). The employed individuals were selected in such a way that the total population was first divided into four strata (including government employees; private and self-employed; NGO employees; and domestic employees). In order to reach the possible respondents of each stratum, purposive sampling was used thereby a total of 435 employed individuals were selected. Table 1 and 2 show the total population and the number of selected sample individuals from each stratum.

**Table 1: Paid Employees in Urban Area of Dire Dawa: Aged more than ten years, 2010**

Government employees	Self-employed and private employees	NGO and other employees	Domestic employees	Grand Total
14,462	16,401	1,878	5,125	37,866

Source: Compiled from CSA, 2010

**Table 2: Sample of the Employees Excluding from each Stratum**

Government employees	Self-employed and private employees	NGO and other employees	Domestic employees	Total
166	188	22	59	435

Source: Own computation, 2014

Here, we have to note that the samples were selected from each stratum as proportional as possible with reference to the population of employed people under each stratum as of the report of Central Statistical Agency (2010).

As this study also considers the performance of financial institutions as a means to utilize households' savings, 15 branches of private banks (from which 5 individuals were selected from each bank) as well as 40 informal institutions (Idirs) were selected from all the 9 kebelles of the city administration with the guidance of the kebele elites.

### **2.3 Methods of Data Collection**

Since this study is expected to involve broader survey, the appropriate way of data collection from the households was to use questionnaires which were distributed to all sample respondents of selected employees; employees of the selected banks; and representatives of the informal financial institutions (Idirs). This was carried out through recruited enumerators. In addition, personal interview and observation methods were also used to cross check information.

## **2.4 Methods of Data Analyses**

The methods of analysis used in this study are specified in line with each specific objective of the inquiry. Accordingly, methods of analysis of this study are categorically stated as shown below.

### **i) Measurement of the rate of saving of the households and utilization of savings**

To measure the extent of the rate of saving of the households, quantitative and qualitative methods of analysis were used through employment of simple statistical tools such as percentages, measures of central tendencies, and pie charts. This part deals with extent of individuals' saving, attitudes of individuals towards saving, means of spending of individuals and utilization of the existing level of the individuals.

Specific to analysis of individuals' saving, the mean monthly saving rate of each sample individuals was taken into account so as to arrive at the aggregate average monthly rate of saving of the households. Attitude of individuals' saving, means of individuals spending, and utilization of savings of the individuals were assessed using qualitative data and descriptive ways of analysis making use of well-designed questionnaires through employment of the aforementioned simple statistical tools.

### **ii) Identifying determinants and challenges of individuals' saving**

The major determinants of the households' saving were primarily figured out using quantitative way of analysis. Descriptive way of analysis was also used to explain the major challenges facing individuals saving with possible justifications. With regard to the quantitative way of analysis, limited-continuous dependent model of econometric regression was applied. Specifically, Tobit econometric regression model was used taking the rate of mean monthly saving of individuals as dependent variable whereas the major possible factors which are expected to influence the rate of saving of

the individuals were taken as regressors (independent) variables of the model<sup>2</sup>.

The justification to use this model is that the dependent variable is expected to be censored type which is partly discrete and partly continuous. It is discrete in terms of the two categories of households – who save and who do not save. It is continuous in terms of the categories of households who save with continuously different level of saving. Accordingly, the dependent variable is stated as:

$$y_i = 0 \text{ or } y_i > 0 \quad (1)$$

Where:  $y_i$  is the rate of saving of household  $i$

For  $y_i > 0$ , the dependent variable is continuous

**Functional specification of the Tobit regression**

Given the existence of individuals who do not save or with saving rate of less than or equal to zero, the rate of saving can be categorically expressed as:

$$\begin{aligned} y &= y^* && \text{if } y^* > 0 \text{ or if the saving rate is positive} \\ y &= 0 && \text{if } y^* \leq 0 \text{ or if the saving rate is zero or negative} \end{aligned}$$

So, if a household has zero or negative saving rate,  $y^*$ ,  $y = 0$ . In essence, this gives us the standard tobit model, which we formalize as follows.

$$y_i^* = x_i B + e_i \quad i = 1, 2, \dots, N \quad (2)$$

$$\begin{aligned} y_i &= y_i^* && \text{if } y_i^* > 0 \\ y_i &= 0 && \text{if } y_i^* \leq 0 \end{aligned} \quad (\text{Verbeek, 2004})$$

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<sup>2</sup> Binary (Probit) econometric regression was also used as an additional tool of analysis to show the major determinants of individuals' saving.



Where:  $x_i$  is vector of factors affecting saving rate of household  $i$

$B$  is vector of coefficients of factors affecting the saving rate

$e_i$  is an error term which is assumed to be NID  $(0, \sigma^2)$  and independent of  $x_i$

This model is also referred to as the censored regression model. It is a standard regression model, where all negative values are mapped to zeros. That is, observations are censored (from below) at zero. The model thus describes two things.

One is the probability that  $y_i = 0$  (given  $x_i$ ), given by:

$$\begin{aligned} P\{y_i = 0\} &= P\{y_i^* \leq 0\} = P\{e_i \leq -x_i' B\} \\ &= P\{e_i / \sigma \leq -x_i' B / \sigma\} = \phi(-x_i' B / \sigma) = 1 - \phi(x_i' B / \sigma) \end{aligned} \quad (3)$$

The other is the distribution of  $y_i$  given that it is positive. This is a truncated normal distribution with expectation:

$$E\{y_i / y_i > 0\} = x_i' B + E\{e_i / e_i > -x_i' B\} = x_i' B + \sigma \{\phi(x_i' B / \sigma)\} / \{\phi(x_i' B / \sigma)\} \quad (4)$$

**Table 3: Description of variables in the model**

Name of the variable	Type of the variable	Description	Expected relationship with the dependent variable
Probability to save/Percentage of average monthly saving (Dependent Variable)	Continuous (but censored)	This variable has feature of being categorical (in the sense of +ve and 0 or -ve rate of saving) and continuous (in terms of level of rate of saving)	-
Sex	Dummy	0 for female and 1 for male	Females are expected to save more (Mayoux, n.d.). Because they are more responsible for family affairs than males.
Marital status	Categorical	1 for married, 2 for single, 3 for divorced and 4 for widowed.	Marriage is expected to increase rate of saving because of scale advantage in the use of assets at household level (Lupton and Smith, 1999)
Age	Continuous	Continuous	Higher age enables to save more due to more experience of work and better earning; except for the retired <sup>1</sup>
Education	Ranked	Has 7 categories level of education, ranked.	As the level of education increases rate of saving is expected to increase

<sup>1</sup> In this study retired old people were not considered; as the study focuses on only the employed group

<b>Name of the variable</b>	<b>Type of the variable</b>	<b>Description</b>	<b>Expected relationship with the dependent variable</b>
Occupation	Categorical	1 for government, 2 for private, 3 for NGO, 4 for self-employed and 5 for domestic employees, categorically	
Respondent's use of planning for consumption	Dummy	1 for who use planning and 0 for who do not use planning for consumption	Use of planning for consumption is expected to increase saving
Where to get meal	Categorical	1 for who cook at home, 2 for who use restaurants and 3 who use both	Cooking at home is expected to increase saving
Dependency on income	Dummy	1 for who help others and 0 for who do not help others	Dependency is expected to decrease saving
Work experience	Continuous	Continuous	Saving is expected to increase with work experience
Average monthly income	Continuous	Continuous	Saving is expected to increase with income
Expenditure on stimulants	Continuous	Continuous	Increase in expenditure on stimulants is expected to reduce saving

**iii) *The role of concerned bodies to mobilize households' saving***

The role of bodies which are expected to mobilize households' savings was assessed using descriptive way of analysis. These bodies include formal financial institutions such as banks, micro finance institution etc; and informal and traditional institutions like "Idirs". The performance of these institutions to mobilize the households' savings was assessed using a well-designed questionnaire. This was assessed making use of responses of the sample respondents and secondary data extracted from these institutions. This part deals with the extent of the sample households using these institutions; effectiveness of their modes of mobilizing the households' saving; the extent of their outreach to individuals of the city and the major problems encountered during their operation of dealing with households saving.

**3. Results and Discussion**

**3.1 Extent of Individuals' Saving and its Utilization**

**3.1.1 *Extent of Individuals' Saving***

Table 4 shows summary of percentage rate of saving of the 453 sample individuals. The table indicates that aggregate/mean monthly saving of the sample individuals is about 11% of their monthly income, on average. This rate of saving seems to be much lower than rate of individuals' saving in other fastest growing economies like China where individuals are able to save about 50% of their monthly income (WDI, as cited in Befekadu, 2011). The table indicates only 62% (271) of the total sample individuals save. More than one third of the individuals do not have any contribution to the rate of saving. If we consider only those who have positive rate of saving, average monthly saving by the individuals (who save) becomes about 17% of their monthly income. Even this is far below that of the case in countries such as China.

**Table 4: Summary of rate of individuals saving**

Respondents	Number	Percentage	Average rate of monthly saving
Having positive rate of saving	271	62	17.22
With no positive rate of saving	164	38	0
Aggregate average rate of monthly saving			10.73

*Source: Own computation, 2014*

It may also be important to see how the trend of individuals' saving behaves so as to analyze whether there are changes or improvements in the individuals' saving, over time. In consideration of this, the respondents were asked to mention how their monthly rate of saving is characterized (whether it increased, decreased or remaining the same), since for the last 5 years until the current period. In this regard, of the total sample individuals (435), 371 reported about the pattern of their rate of saving. The rest have had work experience of less than 5 years. As indicated in Table 5, of 371 sample individuals, 38.8% increased their level and rate of saving. The remaining 21.6% and 39.6% reported that their rate of saving is stagnant and falling, respectively.

**Table 5: Trend of individuals' saving**

Trend of rate of saving	Number of respondents	Percentage
Increased	144	38.81
Stagnant	80	21.56
Decreased	147	39.62
Total	371	100

*Source: Own computation, 2014*

Those who were able to increase the rate of their monthly saving state the following reasons for the rise in their rate of saving, overtime.

- ▶ Increase in their income through gifts, additional investment, increase in profit, and working overtime,

- ▶ Reduction in expenditure for some purposes such as children's education,
- ▶ Change in consumption pattern (reducing use of restaurants and reducing/avoiding use of addictive stimulants).

On the other hand, those who reported that their rate of saving is falling/remaining stagnant state the following reasons for the fall and stagnation of the rate of their monthly saving, through time.

- ✓ High price of commodities and high expenditure on utilities,
- ✓ Stagnant level of income,
- ✓ Temporary loss of job in the min time within the specified period
- ✓ Use of more addictive stimulants,
- ✓ Increase in size of the family, and
- ✓ Facing additional expenditures such as cost of education.

### **3.1.2 Individuals' Attitude of Saving and Plan of Consumption**

It is likely that individuals' attitude towards saving and their consciousness to use planning for their consumption are among the most important factors for individuals' rate of saving. In consideration of this, the sample respondents were asked to report about their attitude towards saving and their application of planning for consumption. In this regard, 424 of the total sample respondents were willing to provide their response. Of these individuals, Table 6 shows that, about 88% (374) have good attitude towards saving. The rest (about 12%) have pessimistic view towards saving for the following reasons.

- Lack of ability and habit of saving due to insufficiency of income
- Superiority of purchase of assets: These respondents state that saving in terms of money is much risky than purchase of assets due

to the inflationary situation. In addition, return (interest) on saving is reported to be lower.

- Lack of awareness and reluctance
- Uncertainty about the future and pessimistic belief

**Table 6: Attitude towards saving and use of planning for consumption**

Respondents'	Good		Not good		Use planning		Do not use planning	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Attitude towards saving	374	88	50	12				
Use of planning for consumption					327	76	106	24

Source: Own computation, 2014

With regard to the application of the use of planning for consumption, 433 of the sample respondents have given their information. Of these, Table 6 indicates that, about 76% use planning for their daily consumption. The rest 24% reported that they do not have the culture to use planning for their daily consumption.

### 3.1.3 Features of Spending of Individuals

In order to have a clear picture of feature of individuals saving thereby creating enabling environment for policy formulation, it seems crucial to investigate the proportion of spending made on different possible means of spending. To this end, the average spending of the sample individuals on each means of spending was analyzed. This is presented using Table 7 and Figure 1. The table indicates that the major expected types of means of expenditure include spending for daily meal, use of stimulants, recreation,

helping others, education, transportation, house rent, cosmetics, purchase of fixed assets, health, utilities, clothing, and others.

As indicated in the table, the total average monthly expenditure of the sample individuals is 3442.45 birrs. Of this, 27.1% (i.e. 934.35 birr) is spent on daily meal, which is the largest proportion of means of spending. In other words, spending on daily meal is more than one-fourth of the total spending of the individuals. This is said to be the characteristics of spending pattern of people in economically poor countries (Zhu, 2008 cited in Jema et al, 2011).

The rest means of spending have share of 72.9%, together. These are ranked from 2<sup>nd</sup> to 13<sup>th</sup> as: spending for stimulants and recreation, to help others, house rent, fixed assets, education, recreation, others, clothing, transportation, stimulants, utilities, health, and cosmetics. This may reveal that daily meal is the most important means of spending which can significantly affect the extent of saving of individuals. This implies an alteration in amount of spending for daily meal is likely to affect the extent of individuals saving, significantly.

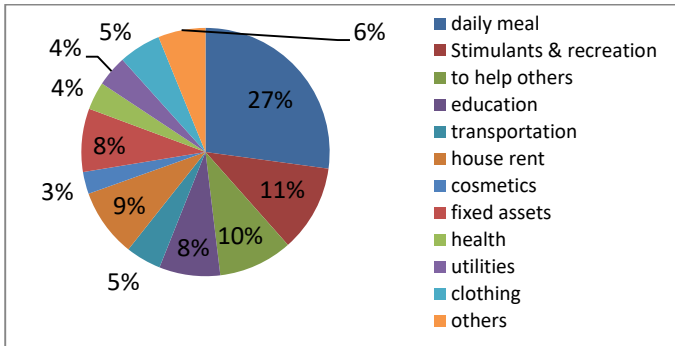
**Table 7: Average expenditure on each category of means of spending**

Means of spending	daily meal	Stimulants & recreation	to help others	education	transportation	house rent	cosmetics	fixed assets	health	utilities	clothing	others	total
Birr spent	934.35	389.08	332.17	273.66	159.10	305.89	98.77	283.90	125.30	138.74	188.99	212.50	3442.45
Percentage	27.1	11.3	9.7	7.9	4.6	8.9	2.9	8.3	3.6	4	5.5	6.2	100
Rank	1	2	3	6	9	4	12	5	11	10	8	7	

Source: Own computation, 2014



**Figure 1: Average expenditure on each category of means of spending**



### 3.1.4 Individuals Saving Utilization

Theoretically, it is expected that economic growth is highly related to the rate of saving of the economy. The intuition is that saving is believed to be identical to investment; and investment is the major engine of economic growth. However, practically, savings of individuals may not be directly utilized for investment; rather individuals may allocate their savings for some other purposes such as purchase of furniture, marriage, future consumption etc. Hence, it seems important to see the extent to which the individuals use their savings for future investment. Table 8 shows the proportion of sample individuals who utilize their savings for investment.

The table shows that, of the total sample of 271 individuals who are able to save some proportion of their monthly income, only about 26% (71 individuals) have stated that they have the tendency to use their saving for investment. The rest 74% of the sample individuals want to use their saving for some other purposes which were explained above. Consequently, it is possible to conclude that there is very little habit of use of saving for investment.

**Table 8: Utilization of saving for investment and habit of using banks for saving**

Measurement	Use of saving		Total	Make saving		Total
	For investment	Not for investment		Using banks	Not using banks	
Number	71	200	271	180	91	271
Percentage	26.2	73.8	100	66.42	33.58	100

Source: Own computation, 2014

On the other hand, in case the individuals keep their savings in banks (for any purpose in the future), there is higher possibility of utilizing the savings for investments, indirectly by other investors who borrow money from banks for investment. Taking this into consideration, the habit of using banks for saving by the sample individuals is presented using Table 8. Table 8 also shows that of the 271 sample individuals who have positive rate of saving, about 66% use banks. This shows that even if majority of the sampled respondents prefer banks to save their money, about one-third of the sample individuals do not use banks. The major reasons, according to the explanation of these respondents, for not using banks are lack of awareness, absence of proximity and delay of the payment system.

### **3.2 The major Determinants and Challenges of the Individuals' Saving**

#### **3.2.1 Major Determinants of individuals' saving**

In this part, result of econometric regression is presented to show the major significant variables which have significant effect to influence the extent of individuals saving. Binary econometric (Probit) regression was carried out taking the possibility of having positive rate of saving as dependent variable and different explanatory variables which are expected to influence the possibility of saving as independent variables. Table 9 presents the result of the Probit regression.

The table shows that 431 of the sample individuals were considered for this analysis. The variables considered in this regression were found to be jointly significant to influence the possibility of having positive rate of saving, at 1% level of significance, as indicated by chi2 result which is 89.19 (where  $\text{prob} > \text{chi2} = 0.0000$ ).

The individual significance test of the regression shows that only 4 of the 15 stated variables were found to affect the possibility of saving significantly. These include marital status of being married, use of planning for consumption, helping others, and average income, which significantly affect the probability of saving at 10%, 1% 5% and 1% level of significance, respectively. Table 9 shows that marital status of being married, use of planning for consumption, helping others, and average monthly income have a P>Z value of 0.073, 0.002, 0.039, and 0.000, respectively.

All the coefficients of these significant variables are positive implying that they have positive effect on possibility of saving. This implies, marital status of being married, use of planning for consumption, helping other individuals and higher rate of income can increase the probability of saving. The possible justification (for marriage, use of planning for consumption and higher income to increase probability of saving) is that marriage and use of planning for consumption are expected to manage the individuals' income in appropriate manner whereas it is theoretically justifiable that probability of saving has the tendency to increase as the level of individuals' income increases.

**Table 9: Probit regression result:**

Dependent variable: The probability to save

Variables	Coefficient	Standard Error	Z-statistic	P-value
Sex	.2064644	.1544091	1.34	0.181
Marital status 1	.5175218	.2950264	1.75	0.079
Marital status 2	.2045752	.3099156	0.66	0.509
Marital status 3	.3922857	.4952763	0.79	0.428
Age	-.0011527	.0138891	-0.08	0.934
Education 1	-.2427575	.2414046	-1.01	0.315
Education 7	.4414543	.3568262	1.24	0.216
Occupation 1	.1603352	.1858918	0.86	0.388
Occupation 2	-.0219955	.1863616	-0.12	0.906
Use of planning	.4914318	.1597614	3.08	0.002
Cooking at home for meal	.1945706	.1824741	1.07	0.286
Helping others	.2986183	.1443351	2.07	0.039
Work experience	.0117284	.0132765	0.88	0.377
Average income	.0001675	.0000458	3.66	0.000
Expenditure on stimulants	-.0000704	.00025	-0.28	0.778
Constant	-1.464899	.6407317	-2.29	0.022
Number of obs =	431			
LR chi2(15) =	89.19			
Prob > chi2 =	0.0000			
Pseudo R2 =	0.1558			

Source: Own computation, 2014

On the other hand, it is theoretically expected that dependency has the tendency to reduce the possibility to save. But the result of the regression shows that those who help others financially have greater possibility to save than those who do not have such a burden. The possible explanation for this may be the fact that those who help others are responsible to care for others which leads them to be much conscious and careful about their spending than those who do not face such a burden.

**Table 10: Tobit regression result**

Dependent variable: The probability to save/percentage of average monthly saving

Variables	Coefficient	dy/dx	Standard Error	Z-statistic	P-value
Sex	2.8807	2.8807	2.231718	1.29	0.197
Marital status 1	12.90686	12.90686	4.703936	2.74	0.006
Marital status 2	8.101927	8.101927	4.918978	1.65	0.100
Marital status 3	7.979568	7.979568	7.531793	1.06	0.290
Age	.3907815	.3907815	.2009979	1.94	0.053
Education 1	-3.772618	-3.772618	3.854272	-0.98	0.328
Education 7	4.245628	4.245628	4.040929	1.05	0.294
Occupation 1	2.607778	2.607778	2.684683	0.97	0.332
Occupation 2	-1.39454	-1.39454	2.743726	-0.51	0.612
Use of planning	5.819024	5.819024	2.555062	2.28	0.023
Cooking at home for meal	2.792597	2.792597	2.792078	1.00	0.318
Helping others	4.967806	4.967806	2.085769	2.38	0.018
Work experience	-.1484629	-.1484629	.1843197	-0.81	0.421
Average income	.0010884	.0010884	.0006415	1.70	0.091
Expenditure on stimulants	-.0014179	-.0014179	.003485	-0.41	0.684
Constant	-32.32578		9.683442	-3.34	0.001
Number of obs =	431				
LR chi2(15) =	79.47				
Prob > chi2 =	0.0000				
Pseudo R2 =	0.0303				

Source: Own computation, 2014

In addition to the probit regression, we have estimated Tobit regression in order to figure out the extent of change in the rate of saving for a change in expected determinants. The result of the Tobit regression is presented in Table 10. As indicated in the table, almost all the variables that were found to be significant under the probit regression, were also found to be significant to affect the rate of individuals saving, under the Tobit regression. The difference, here, is that age of the individuals was also found to be a significant variable at 10% level of significance, with P-value

of 0.053. The implication is that, since variable age has positive coefficient of 0.3907815, as individuals' age increases, they save more. In other words, elderly people can save more than that of the youth people.

The extent of the significance of the variables has also changed here, but with the same sign of coefficients. Here, marital status of being married, respondents' use of planning for consumption, dependency/helping others, and average monthly income were found to be significant at 1%, 5%, 5%, and 10% level of significance, with P-value of 0.006, 0.023, 0.018, and 0.091, respectively.

The marginal effect after Tobit regression was estimated for the sake of showing the extent to which the rate of average monthly saving of the individuals change as there is change in these significant variables. As indicated in Table 10, marginal effects (dy/dx) of these five significant variables (marital status of being married, age, use of planning for consumption, dependency/helping others, and average monthly income) are approximately 12.91, 0.39, 5.82, 4.97, and 0.001, respectively.

This shows that, if an individual is married, his/her rate of monthly saving increases by 12.91 percent; as age of an individual increases by a year, his/her rate of monthly saving increases by 0.39 percent; if an individual uses planning for consumption, his/her rate of monthly saving increases by 5.82 percent; if an individual faces responsibility of helping other (burden of dependency), his/her rate of monthly saving increases by 4.97 percent; and if average monthly income of an individual increases by one birr, his/her monthly rate of saving increases, by 0.001 percent.

### **3.2.2 Challenges Retarding the Level of Individuals' Saving**

In order to figure out the major challenges retarding individuals' saving, possible expected factors were stated for the sample respondents to

specify their judgmental qualitative scale. The scale has four categories which include: Strongly agree with rate of 4; Agree with rate of 3; Disagree with rate of 2; and strongly disagree with rate of 1. The factors which are expected to retard individuals' saving with the average rating scale of the sample respondents are presented using Table 11 and Figure 2.

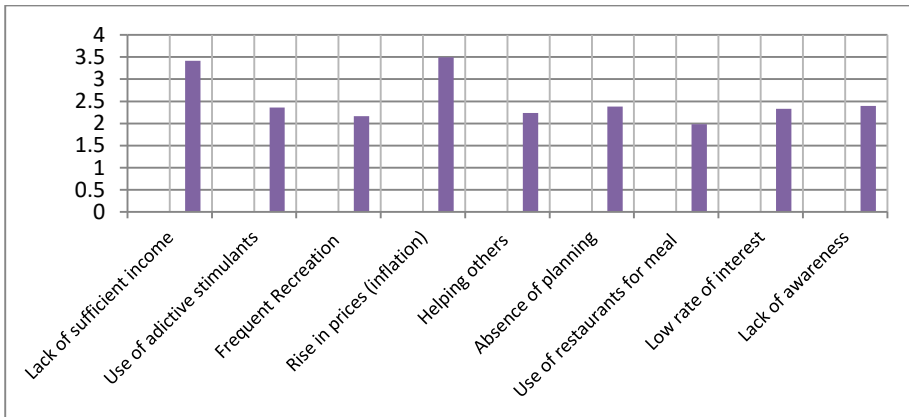
**Table 11: Rank of challenges retarding individuals saving**

Factors Retarding Individuals' Saving	Lack of Sufficient Income	Use of Addictive Stimulants	Frequent Recreation	Rise in Prices (Inflation)	Helping Others	Absence of Planning	Use of Restaurants	Low Rate Of Interest	Lack of Awareness
Average Value of scale	3.4147	2.3591	2.166	3.496	2.239	2.3789	1.9865	2.329	2.3973
Rank	2	5	8	1	7	4	9	6	3

Source: own computation, 2014

Table 11 indicates that rise in prices of commodities (inflation) is ranked as the first to retard the individuals' saving which is followed by lack of sufficient income. Specially, currently the food inflation rate is much higher than that of the non-food inflation, in Ethiopia; hence, the rate of inflation is expected to have adverse implication on the rate of saving of individuals for the fact that much of income the individuals is spent on food items. The other factors are ranked in descending order from 3<sup>rd</sup> to 9<sup>th</sup> as: lack of awareness, absence of planning for consumption, use of addictive stimulants, low rate of interest, helping others/dependency burden, frequent recreation and use of restaurants for daily meal.

**Figure 2: Scale of severity of the factors that retard rate of individuals' saving**



### **3.3 Performance of Concerned Financial Institutions to Mobilize Households' Saving**

Efficiency of performance of financial institutions is one of the factors which can determine the performance of individuals' and households saving utilization. In cognizant of this, in this study, an attempt was made to explore the performance of the formal and informal financial institutions to mobilize individuals'/households' savings.

#### **3.3.1 Performance of Formal Financial Institutions**

In order to analyze the performance of the formal financial institutions, all the banks found in the city were considered. However, only 7 of the banks (including Commercial Bank of Ethiopia, Wegagen Bank, Cooperative Bank of Oromia, Oromia International Bank, Awash Bank, Bank of Abyssinia and United Bank) were willing to provide information. Accordingly 15 branches of the 7 different banks were used to get the information about performance of the banks. From these 15 branches of the banks, 5 individuals were randomly selected from each, to provide us the required information. The analysis was made based on 4 major points including



number of customers depositing under each branch, economic status of depositors, trend of number of depositors, and complaints of customers.

**Table 12: Economic status and trend of number of customers**

	Economic status of customers		Total	Trend of number of customers			Total
	Rich and middle class	All		Increasing rapidly	Increasing slowly	remaining the same	
Number	13	62	75	40	32	1	73
Percentage	17.33	82.67	100	54.79	43.84	1.37	100
Average Number of Customers = 5834							

Source: own computation, 2014

Table 12 shows average number of depositors under each bank, which was estimated based on responses of 75 respondents from the banks. It is shown that, on average each bank serves about 5834 depositors. Given that the total number of the banks existing in Dire Dawa is 10, the total number of the people having deposit is 58340. According to the estimation of Central Statistical Agency (2005) estimation, employment – population ratio in Dire Dawa is 0.536. If we consider that this ratio is remaining constant, out of the current level of population in Dire Dawa (i.e. 378,417 according to estimation of 2011), 202832 are employed. Hence, the ratio of number of depositors to the number of employed people is 0.29. This shows that, provided that all depositors are employed people, more than two-third of the employed people does not have deposit.

Table 12 also presents economic status of depositors according to responses of all the 75 respondents from the banks. The table shows that, of the 75 respondents, 17 percent (13) state that the depositors are rich and middle men as denoted by “3”. The rest 83 percent (62) report that depositors are with all type of economic status including the poor. This

indicate that majority of the employees of the banks believe that the poor can also have deposit at banks.

In order to analyze trend of number of depositors over time, the selected respondents were requested to report whether the trend of number of depositors is increasing rapidly, increasing slowly, remaining the same or decreasing. Of the total respondents, 73 have given information about what they feel. Table 12 shows that 55 percent (40), 44 percent (32), and 1 percent (1) of the 73 respondents state that the number of depositors is increasing rapidly, increasing slowly and remaining the same, respectively. None of the respondents believe that the number of depositors is falling. This shows that majority of the employees of the banks believe that the number of depositors is increasing rapidly and almost all (about 99%) agree that the number of depositors has an increasing trend.

**Table 13: Extent of customers' complaint**

Existence of customers complaint	Number	Percentage
Yes	25	33.78
No	49	66.22
Total	74	100

Source: Own computation, 2014

The other important aspect with regard to the performance of the currently existing banks is the quality of the services they provide to the depositors. It is expected that the better the quality of the services provided by the banks, the more will be the favorability of the situation for saving mobilization. Hence, in order to diagnose this, the extent of customers' complaints was taken into account. In this regard, 74 of the respondents have indicated what they feel. As indicated in Table 13, about 34 percent (25) of the respondents believe that there are complaints from customers whereas the rest 66 percent (49) deny the existence of complaints.

Whatever the case may be, the result shows that more than one-third of employees of the banks state that there are customers' complaints. The major complaints, according to these respondents, include;

- ✚ Network (internet) connection problem
- ✚ Lack of online services
- ✚ Lack of understanding about the core banking system by both the customers and employees of the banks
- ✚ Lower rate of interest and absence of negotiation on interest
- ✚ Longer period of services
- ✚ Lack of incentives
- ✚ Lack of advanced technologies

### **3.3.2 Performance of Informal Financial Institutions**

In Ethiopia, "Idirs" are the mostly known informal financial institutions, through which people accumulate capital mainly for risk pooling purpose. In some cases, the accumulated capital can also be utilized for investment on business activities. In order to analyze about the performance of the informal financial institutions, 40 "Idirs" which are well recognized by the nine kebelles of the city were selected, purposively with assistance of the kebelles' guidance. The major indicators considered to analyze the performance of these selected "Idirs", in terms of saving mobilization and investment creation, include; capital possession by the institutions, trend of capital accumulation, number of members involved, and business investments made by the institutions (as indicated in Table 14).

Table 14 shows that, on average, about 91 households are involved and participate in each of the selected 40 "Idirs". Each "Idir" is expected to possess more than 72 thousand Birrs, on average; implying that for all the 40 "Idirs", more than 3 million Birrs is currently accumulated. With regard to the trend of capital accumulation, 7 (17.5%) of the "Idirs" have experienced rapid increase in capital accumulation; 30 (75%) have got a

gradual (slow) increase in capital accumulation; but the rest 7.5% of the “Idirs” are facing a stagnant or a falling trend of capital accumulation. The implication of this is that majority of the “Idirs” are experiencing at least a gradual increase in capital accumulation.

Hence, with such an increasing trend of capital accumulation, if accumulated capital is invested on business activities, more capital formation would be brought about overtime, along with the risk pooling practices of these “Idirs”. However, Table 14 shows that only 5 (12.82%) of the selected “Idirs” are engaged in such activities. Even if there is tendency of capital accumulation for the “Idirs”, most of them do not invest on business activities for the fact that the main purpose of establishment of the “Idirs” helping member households at the time of emergency especially for deaths of household members.

**Table 14: Trend of capital accumulation, number of members involved in the informal financial institution and use of capital for investment**

	Trend of capital accumulation				Total	Use of capital for business investment		Total
	Increasing rapidly	Increasing slowly	Remaining the same	Reducing		Yes	No	
Number	7	30	2	1	40	5	34	39
Percentage	17.5	75	5	2.5	100	12.82	87.18	100
Average amount of capital accumulation = 77270								
Average number of members = 91								

Source: Own computation, 2014

According to the qualitative information reported by representatives of the “Idirs”, some of the major reasons that prohibit most of the “Idirs” not to engage or invest on business activities include:

- ❖ Lack of awareness about the possibility of making business investment
- ❖ Rigid attitude of some members of the “Idirs” who think that the “Idir” is established only for risk pooling purpose
- ❖ Lack of sufficient capital
- ❖ Fear of corruption and dishonest
- ❖ Disagreement among members of the “Idirs”
- ❖ Lack of enough knowledge about business investment and how to prepared business plans for investment
- ❖ Lack of willingness to get additional capital from banks due to expectation of higher rate of interest to borrow capital
- ❖ Absence of innovative members in the “Idirs”

Given this, we have tried to consult to representatives of the “Idirs” in order to create motivation of making business investment for the future. Taking this into consideration, most of the “Idirs” (80%) have shown positive reflection of making business investment in the future provided that the aforementioned problems can be solved.

#### **4. Concluding Remarks**

Nowadays, Ethiopia is found to be among the fast growing countries in the world. The country is currently said to have growth and transformation plan to boost its economic growth overtime to the extent that it is able to join the middle income countries within few years. It is believed that this objective can be realized if the country can make substantial amount of investment in all of its economic sectors. According to different economic theories and empirical studies, such amount of investment can only be achieved through higher rate of capital accumulation which is brought about through national savings or foreign direct investment.

However, currently, much of the capital accumulation is brought about from foreign direct investment. The rate of saving in the country was found to be very low. Such reliance on foreign capital is said to have adverse political and economic implication for sustainability of economic growth of the country in the future. Hence, in order to keep sustainability of growth of the country, the rate of saving in the country has to improve. As individual citizens are the major economic agents or actors of the economic system, development of their saving pattern or behavior can have significant impact to improve the national saving of the country. Hence, empirical studies focusing on the saving and investment pattern of individual citizens is expected to be crucial so as to make appropriate economic policies on the issue under consideration.

In cognizant of this, this study was undertaken in order to explore the extent of individuals saving and its utilization, identify the major determinants of the individuals saving, and assess the role of concerned bodies/organizations in improving the household saving; taking Dire Dawa City as a case study area. The study was undertaken using mainly primary data of survey undertaken on individual employees, and formal and informal financial institutions; which was analyzed through descriptive and quantitative analyses.

Result of the descriptive analysis shows that the rate of individuals' saving is very low as compared to that of other fast growing countries like china. The trend of individuals' rate of saving for majority of selected respondents does not show improvement overtime. However, majority of the people were found to have good attitude towards saving and make plan for consumption. But, still there are significant number of individuals who do not use planning for consumption. The study reveals that much of the spending of the individuals is made on daily meal or food items; which shows the characteristics of spending of poor people. The study also indicates that majority of the individuals use their saving for some other

purposes than to make investment; besides there are significant number of individuals who do not use banks to save their money which would have been possibly used for investment by other individuals had they used banks.

Result of the descriptive analysis also shows that rise in prices of commodities (inflation) is ranked as the first factor to retard the individuals' saving which is followed by lack of sufficient income of individuals. It is obvious that currently the food inflation is much higher compared to non-food inflation, in Ethiopia; hence, as long as much of the income of the individuals is spent on food, it is expected to have adverse effect on the rate of saving of individuals.

With regard to the quantitative analysis of individuals' behavior of saving, the probit regression result shows that marriage, use of planning for consumption, and higher income earning can significantly enhance the rate of individuals saving. Moreover helping other as indication of becoming responsible person was found to be a significant factor to improve individuals' rate of saving. In addition to these four factors, the tobit regression shows that elderly workers can significantly save more than the youth.

Result of descriptive analysis of performance of formal financial institutions shows that the existing banks serve almost people with all type of economic status (both the poor and rich). According to the survey's result, trend of number of customers is increasing. Even in most cases, it is increasing rapidly. However, still, only less than one third of the employees of the city use banks for deposit. The study also indicates that there is significant number of complaints on the services delivered by the banks which may retard the motivation of the people to use banks. These complaints include network (internet) connection problem, lack of online services, lack of understanding about the core banking system by both the customers and

employees of the banks, lower rate of interest and absence of negotiation on interest, longer period of services, lack of incentives, and lack of advanced technologies.

With regard to performance of informal financial institutions, analysis of the survey indicates that significant amount of capital can be possessed by “Idirs” which can turn out to be invested to increase the capital formation. However, only little segment of the capital is being invested for business activities as only very few “Idirs” make business investments. The major reason is that the “Idirs” are established for risk pooling practices such as emergency of deaths. In relation to this, different problems were stated which are expected to prohibit the “Idirs” to make business investments. These are lack of awareness about the possibility of making business investment, rigid attitude of some members of the “Idirs” who think that the “Idir” is established only for risk pooling purpose, lack of sufficient capital, fear of corruption and dishonest, disagreement among members of the “Idirs”, lack of enough knowledge about business investment and how to prepared business plans for investment, lack of willingness to get additional capital from banks due to expectation of higher rate of interest to borrow capital, and absence of innovative members in the “Idirs”.

### **Policy Implications**

- ▶ Findings of this study reveals that saving rate of individuals is very low; hence, emphasis should be given to enhance individuals’ or households saving rate.
- ▶ Since, making plan for consumption is considered to be one of the major variables which can significantly affect individuals’ rate of saving; awareness creation and trainings should be given to the society about consumption planning.



- ▶ Much of the income of the people was found to be spent on foods (daily meal) and food inflation is considered to retard rate of saving of households; hence, price stability policies targeted on major food items should be appropriately formulated.
- ▶ It was found that only insignificant amount of individuals' saving is allocated to investment as well as significant number of employees do not still use banks. Thus, mechanisms should be created to encourage the people to make investments with their existing level of savings. In addition, employers should be encouraged to create channels of connecting their employees with banks; such as the way some government institutions are paying salaries through banks.
- ▶ Since marriage is one of the most important factors which can enhance saving rate of individuals, especially the youth group should be encouraged for marriage through institutional and socio-cultural activities. For instance, employers of some institutions provide credit for their employees for marriage.
- ▶ Creation of sense of responsibility among individuals (especially among the youth) is very important to enhance saving of individuals.
- ▶ Increasing earning capacity of the people is expected to enhance individuals' rate of saving; hence, employees should be encouraged to look for additional jobs without jeopardizing their permanent job. Those employers of some institutions that rigidly prohibit their employees to have additional jobs should take this into account.
- ▶ Even if Ethiopian banks are currently performing well in terms of advancing their services through adoption of innovations,

awareness creation and encouraging the people to save more, there are still complaints related to deposits and withdrawals of money, that they should take into account, in order to improve their services further.

- ❖ Findings of this study indicates that informal financial institution like “Idirs” can have significant amount of capital which can be allocated to business investments, no matter the fact that they are established primarily for risk pooling activities. Hence, efforts should be made to encourage these institutions to make business investments; through awareness creation, provision of additional capital, and business and entrepreneurial trainings.

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