Integrated Functional Adult Literacy Education for Empowerment and Sustainable Development in Ethiopia

A Comparative Study of Tigray and Amhara Regions

FESSEHA ABADI WELDEMICHAEL

Faculty of Educational Sciences, Department of Education

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2018
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Dedication

To my nephew Gebrehiwot Tetemke Abadi (nicknamed *Mahta*)—in honour of his contributions and efforts.

Abstract

The implementation and contributions of adult literacy programs in Ethiopia during the three governments since Emperor Haile-Selassie and until now differ. Ethiopia promulgated a new Education and Training Policy (ETP) in 1994 that ignored adult literacy education as a means to provide the rural illiterate majority with their right to basic education. However, in 2008 the Ministry of Education developed the National Adult Education Strategy focusing on Integrated Functional Adult Literacy Education (IFALE). The strategy aims to develop the knowledge and practices of adult participants to support accelerated and sustained development efforts to make Ethiopia a middle-income country by 2025. The purpose of the current study is to explore the implementation of IFALE and its contributions to learner empowerment and sustainable development (SD) efforts in the country. It is a regional, comparative, rural-focused study of Tigray and Amhara regions, using a mixed methods design. Data collection through interviews, observations, document analysis and a survey took place in 2013.

The results from observations and interviews indicate that the implementation of the IFALE policy in terms of the strategies of a relevant curriculum and building an efficient institutional system was unsuccessful in Tigray but partly successful in Amhara. The comparison between IFALE participants and non-participants, based on the survey results, indicates that IFALE results in significant contributions in limited areas of the political, economic, socio-cultural and psychological empowerment dimensions in both regions. The IFALE participants in Tigray have gained more in political empowerment than those in Amhara, whereas the participants in Amhara gained more in socio-cultural achievement than those in Tigray. The findings indicate that economic empowerment gains have generally been constrained in both regions but more so in Amhara than in Tigray. The findings that IFALE participants had significantly improved saving practices in both regions and participated in income generation schemes in Tigray are important seen in light of previous studies. IFALE seems to have improved self-efficacy but not improved self-concept in both regions. Therefore IFALE empowered participants in limited areas, through improving learning, capabilities and livelihoods at personal, family, and/or societal levels which can ultimately support SD in some ways.

The results also show that in Amhara IFALE embraces most of the major features of education for sustainable development (ESD) as defined by UNESCO (2006b) while in Tigray it embraces only half of the features, suggesting a difference in the extent of support for SD in the two regions. According to the findings, in Amhara IFALE had partly successful implementation of a relevant curriculum and an efficient institutional system, led to significant empowerment gains in limited areas, and fulfilled most of the major ESD features. This implies that IFALE gave moderate support to SD in its own right. By contrast, in Tigray, the findings that the implementation of a relevant curriculum and an efficient institutional system was not successful, the empowerment gains were limited, and half of the ESD features were not embraced suggest that IFALE's support to SD was restricted.

For both regions, the result that IFALE appears to not have led to substantial gains in most indicators of the empowerment dimensions and that it did not fulfill at least three of the ESD features may have negatively affected its potential contribution to the four components of SD (environment, economy, society and culture). The precondition to doing so is political will. The regional comparison contributes to identifying relevant contextual factors that can help future implementation of IFALE.

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List of Acronyms/Abbreviations

ABE	Amhara Bureau of Education
AE	Adult Education
ALE	Adult Literacy Education
BDEC	Basic Development Education Center
CBAE	Competency-Based Adult Education
CSTC	Community Skills Training Center
DESD	Decade of Education for Sustainable Development
EFA	Education for All
ESD	Education for Sustainable Development
EWLP	Experimental World Literacy Program
FAL	Functional Adult Literacy
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immuno-Deficiency Syndrome
IALS	International Adult Literacy Survey
IFALE	Integrated Functional Adult Literacy Education
IFALP	Integrated Functional Adult Literacy Program
LLL	Lifelong Learning
MoE	Ministry of Education
NAES	National Adult Education Strategy
NDR	National Democratic Revolution
NFE	Non-Formal Education
NGO	Non-Governmental Organization
NLC	National Literacy Campaign
NLCC	National Literacy Coordinating Committee
NLCCC	National Literacy Campaign Coordinating Committee
NLCO	National Literacy Campaign Organization
OECD	Organisation for Economic Cooperation and Development
OED	Operations Evaluation Department
PA	Peasant Association
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PHMC	Philadelphia Public Management Corporation
PLO	Provincial Literacy Officers
RCT	Randomized Controlled Trial
REFLECT	Regenerated Freirean Literacy through Empowering Community Techniques
SD	Sustainable Development
SDGs	Sustainable Development Goals
TBE	Tigray Bureau of Education
UNESCO	United Nations Educational Scientific and Cultural Organization
WOALP	Work-Oriented Adult Literacy Program

Chapter 1
Introduction

1.1 Background

The field of adult literacy education (ALE), also called adult basic education and adult literacy and numeracy, has received increasing attention in many countries as an indispensable part of education. According to Tett and St. Clar (2010), there are three reasons. The first one is the inspiration from the International Adult Literacy Survey of the mid-1990s (and the less influential Adult Literacy and Life Skills Survey of the next decade) which for the first time compared the skills of adults in different countries. The second reason is the advance towards the information society that considers literacy as the foundation for success. The final one is the assumption of agencies, such as the World Bank and United Nations Educational Scientific and Cultural Organization (UNESCO), that education is a key to prosperity. Scholars, for example Rogers (2001), also believe that literacy serves as an instrument for life improvement and minimizing poverty among poor people.

The importance of ALE has been clear at the global level. Expectations have been high for ALE to meet the needs of adults previously denied of basic education. The Dakar Framework for Action stipulated six Education for All (EFA) goals that aimed to meet the learning needs of all children, youth and adults by 2015 (UNESCO, 2000a). One of the goals was to achieve a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults. Goal 4 of the UN post-2015 agenda on Sustainable Development Goals (SDG) aims to ensure that all youth and a substantial proportion of adult men and women achieve literacy and numeracy by 2030 (UN, 2015). In addition, Goal 16 of the same agenda aims to ‘promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels’ (UN, 2015). The literacy rate is one of the indicators for sustainable development (SD) (United Nations Economic Commission for Africa, 2005, p. 19, p. 23).

By engaging in adult literacy, the Ethiopian government is attempting to fulfill national, regional and international goals. As stated in its Plan for Accelerated and Sustained Development to End Poverty (PASDEP), Ethiopia strongly and ambitiously envisions being

an economically competitive, middle-income country by the year 2025. To achieve the desired social and economic transformation, the country recognizes that education plays a central role (MoE, 2010a). The Ministry of Education (MoE) believes that a high increase of the literacy rate supports other development goals of the country (MoE, 2010b, p. 12). In addition, efforts to expand ALE seem to be a way of both fulfilling the regional indicator of SD, and of the international commitments to universal primary education and increased literacy and numeracy rates for all youth and a higher percentage of adults by 2030.

Many studies show that Ethiopia has made much effort to expand primary, secondary, technical and tertiary education through successive Education Sector Development Plans (ESDPs) based on the Education and Training Policy (ETP) of the country which was published in 1994**.** Despite the high attention to Universal Primary Education (UPE), reports indicate that the absence of a comprehensive adult education (AE) policy has resulted in difficulty in terms of coordinating provisions and providers and in getting basic data on AE (Werqneh, 2011, p. 245). As UNESCO (2009/10) and World Bank (2014) reports show, about 27% of the total population in the country were non-literate adults (23.2 million of 87.1 million) in 2007. This indicates the country's low focus on ALE. Kebede (2005, p. 27) argues that ALE in Ethiopia 'remained peripheral to education policies' and minimal resources had been allocated due to the government's lack of political will. The adult literacy rate (15 years and older) in Ethiopia was 39% in 2007, one of the lowest rates in Africa (UNESCO Institute for Statistics, 2012, p. 13).

However, the Ethiopian government recently started to focus on ALE. Together with its partner institutions, the MoE designed the National Adult Education Strategy (NAES) in 2008. A number of successive ALE documents were produced. Among these, Learning for Life: Master Plan for Adult Education in Ethiopia (2010/11-2019/20) and the Education Sector Development Plan IV (2010/11-2014/15)—which includes the implementation of the Integrated Functional Adult Literacy Education (IFALE)[1] Program—are the most crucial. MoE (2008) considers that adult education, i.e., IFALE, can contribute as an integral part of the implementation of other development policies, strategies and packages to achieve accelerated and sustained development to end poverty. In ESDP IV, the initial target was to enroll 36.4 million 15-60 year old adults in a two-year IFALE program. This target was

[1] Different Minstry of Education (MoE) documents have different names for the current literacy program in Ethiopia, e.g. Functional Adult Literacy (FAL) and Integrated Functional Adult Literacy (IFAL). In this study, Integrated Functional Adult Literacy Education (IFALE) is used throughout.

adjusted in 2012 to instead reach 19.4 million youth and adults. MoE (2008) underlines that IFALE seeks to link writing, reading and numeracy skills to livelihoods and skills training in areas such as agriculture, health, civics and cultural education. The ambition appears to be to use IFALE as a tool for empowering underprivileged communities and eventually supporting SD.

This dissertation explores the implementation of IFALE and its role in participants' empowerment and SD in Ethiopia. This is done by comparing the Tigray and Amhara regions. This is an important area of study for both policy makers and the academic community. In terms of policy-making, the study contributes to global knowledge based on identifying best practices from the local context in a specific nation. It can thereby also assist future adult education policy and practice. In terms of academia, the study contributes to the scholarly debate on the link between an empowering adult education and sustainable development; it helps promoting understanding that adult education must be addressed in a socially comprehensive way; and it contributes to filling the gap on reliable data on adult education in Ethiopia.

1.2 **Rationale of the Study**

There are many arguments concerning the importance of adult education and adult literacy both as a field of study and as a part of government policies to sustain development efforts. It is thus important for both theory and practice.

Being comparative in nature, adult education can draw 'best practices' from international experiences and provide lessons to improve policy and practice at home (Torres, 2013). Yet the process of adoption or adaptation of a given learning experience or 'best practice' within a country and among countries must consider careful analysis of the context if it is expected to produce good results (Cartwright & Hardie, 2012; Torres, 2013). Within countries, studies must also be contextualized in order to 'lend and borrow' 'best practices'. For Arnove (2013), comparative data help guide theory to reach reasonable propositions about the outcomes and workings of lifelong learning systems understood in their social and historical contexts.

According to Torres (2013), adult learning education has three dimensions: scientific (contributing to theory building, research and practice); pragmatic (discovering what can be learned to improve policy and practice); and international or global (reaching a new importance with respect to the changes in the world system). Arnove (2013) claims that these

dimensions are essential to comparative and international education. As Torres (2013) suggests, they must be combined in order for adult education to be better informed and more effective in promoting educational policy and practice.

However, despite the agreed understanding of the importance of adult education and literacy for development and despite world-wide efforts, illiteracy continues to exist in diverse social contexts. According to Stromquist (2009, p. 71), literacy programs suffer from a shortage of resources, failure to gain a deeper understanding of adult learners, inadequacy to invent instructional methodologies suiting the learners' realities and needs, and inability to equip facilitators with skills required in order to address the demands of adult learners. Similarly, Betts (2002) underlines that recent developments raised a number of questions concerning literacy policy and practice: How can provision respond to the daily realities of the poor, i.e. to their needs, practices, hopes and aspirations? How can it avoid stigmatizing those who have not had the opportunity to learn how to read and write? How can literacy be made more relevant, accessible, equitable and extended to the very hardest to reach?

These questions are all relevant to the current study on Ethiopia. One reason for their relevance in Africa, according to Aitchison and Alidou (2009), is that literacy teachers in Africa are not only the least qualified, but also the lowest paid of all adult educators. In Ethiopia, adult and non-formal education is insufficient (low accessibility and inadequate distribution), of low level of relevance and quality, and with no organizational system to coordinate and lead programs and integrate the endeavors of different ministries and other partners (MoE, 2008; 2010b). ALE programs also encounter difficulties, such as inappropriate contents; absence of active learning methods in the teaching and learning process; low retention of literacy skills and practices; and lack of learner motivation (Reder, 2009; Stromquist, 2009; MoE, 2008). Other challenges are: lack of commitment at policy and application level; scarce financial resources; failure to reach marginalized illiterates; absence of coherent language policies and planning, coordination and partnership mechanisms; challenging processes of monitoring and evaluation; and low quality of literacy programs (Ito, 2013, p. 3).

Another reason, according to Stromquist (2009, p. 71), is that many adult literacy programs continue to emphasize coding and decoding of basic texts and fail to expose learners to more encompassing and sustained literacy practices. Programs should instead be developed that also focus on the retention of various skills since adult learners' literacy proficiency alone

may not be the most appropriate measure of program impact and other dimensions, such as engagement in everyday literacy and numeracy practices (Reder, 2009).

Scholars, such as Lauglo (2001) and Kanukisya (2012), recognize adult education as one of the factors playing a role in political, social, cultural and economic development in its own right. To Stromquist (2009, p. 65), adult literacy is important for both individual and social transformation as reflected in the concept of empowerment. It is political in nature. Therefore, literacy programs should go beyond mastery of literacy and numeracy skills, to include political, economic socio-cultural and psychological empowerment of learners in order to support a nation's SD. Literacy must, therefore, relate to other sectors of development than education and to civil society, particularly non-governmental organizations (NGOs), in order to produce collective empowerment of a nation.

SDG 16 aims to 'promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels' (UN, 2015). This thinking should inspire scholarly debates on the links between adult education and sustainable societies. Education, in general, and adult education, in particular, enables learners, among others, to be active citizens, have respect for other humans, and acquire the values and principles underpinning SD. As the focus of this study is on IFALE's contributions to SD in Ethiopia, it can hopefully contribute to this kind of debate.

However, so far, normative expectations about literacy as a means to produce active citizens (a form of civic participation that engages individuals in organized political action beyond voting) seem not to have been put into practice (Stromquist, 2009, p. 73). UNESCO (2005a) and the Global Campaign for Education (GCE) (2009) recommend that literacy programs should have sustained post-literacy activities, and be coordinated with efforts to provide micro-credit for the poor. Addressing literacy in a socially comprehensive way will reduce the barriers to literacy participation by marginalized adults (Stromquist, 2009, p. 73).

Even if national governments, international institutions, and multilateral agencies readily endorse a normative view of literacy as a human right for all, they often disregard their own commitments to offering literacy programs of quality, indicating a noticeable discrepancy between intentions and genuine responses (Stromquist, 2009, p. 74). According to Kenea (2014, p. 256), the presence of legislation and official strategies in Ethiopia do not guarantee the success of a literacy program, suggesting that real commitment from both federal and local government bodies in the country is crucial. In Ethiopia, 'free will' to attend ALE will

have no effect in the absence of government interventions to create a conducive learning atmosphere (Kenea, 2014, p. 256). Kebede (2005, p. 27) claims that political will and explicit policy is only meaningful when supported by the allocation of adequate resources.

What is clear, therefore, is the necessity to conduct studies on ALE in order for literacy programs to play their role in supporting learners and wider development efforts in a nation. Comings and Soricone (2007, p. 5) argue that 'research in adult literacy has the promise of having a positive impact on the lives of millions of adults'. However, several authors claim that there are few adult literacy studies fulfilling the standards of scientific research (Beder, 1999; Kruidenier, 2002; Comings, Soricone, & Santos, 2006; Comings & Soricone, 2007). Comings and Soricone (2007) also claim that there are few studies on design and evaluation of literacy programs. According to MoE (2010b), there is a lack of adequate and reliable information on ALE in Ethiopia.

In conclusion, Ethiopia has an explicit strategy to improve and expand adult literacy, particularly through IFALE, in order to support political, socio-economic and cultural transformation and become a middle-income country by 2025. The purpose of this study is to investigate whether this strategy is implemented in practice, taking into consideration the importance of adult education and literacy for empowerment at personal, community and national levels, and understanding potential barriers in light of the factors identified above. Before doing so, a deeper conceptual discussion of the key concepts for adult education is presented.

1.3 Concepts of Adult Education, Adult Literacy and Life Long Learning

The field of adult education refers to several important concepts including the terms education, literacy and learning. The most comprehensive one is *adult literacy education* (ALE) which is set within the perspective of lifelong learning (LLL). The concept of AE is narrower. According to Merriam and Brockett (1997, p. 13), AE is a set of 'activities intentionally designed for the purpose of bringing about learning among those whose age, social roles, or self-perception define them as adults'. In contrast, UNESCO (1976) defines AE more widely, capturing the dimensions of personal and national development that are also essential to Stromquist, as discussed earlier.

> The term 'adult education' denotes the entire body of organized educational process, whatever the content, level, method, whether formal or otherwise, whether they

> prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adults by the society to which they belong develop their abilities, enrich their knowledge, improve their technical or professional qualifications or turn in a new direction and bring about changes in their attitudes or behavior in a twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development (p. 2).

In this understanding, any educational program, be it formal or non-formal, is part of AE if it targets adults. Programs might focus on agricultural extension, in-service training, literacy, out-of-school education, vocational education, community development, and cooperative learning (Youngman, 1998). According to Nafukho, Amutabi and Otunga (2005, p. 7), parallel degree programs, self-sponsored degree programs, mature-entry programs, privately sponsored degree programs, prison education, non-formal education, informal education, distance education, human resource development, Acquired Immuno-Deficiency Syndrome (AIDS) awareness education, and midwives' education are also used to denote AE. In the Ethiopian context, adult and non-formal education, i.e. Integrated Functional Adult Literacy, aims at providing basic education opportunities to adults who are 15 years and above (MoE, 2008, 2010c). AE is part of LLL (Nafukho et al., 2005; Torres, 2006) and can contribute to 'the development of a LLL culture' (Kanukisya, 2012, p. 10).

However, 'repositioning AE within LLL requires a shared philosophy of the purposes and benefits of adult learning' (UNESCO, 2009b, p. 23). UNESCO (2009b) suggests a philosophy for LLL in accordance with Sen's (1999) capabilities approach[2]. This approach is also supported and expanded by Nussbaum (2000). In this approach, the principal objective of development is freedom based on the expansion of human capabilities. It embraces not only the economic dimension and the pursuit of well-being, but also the notions of affiliation, for instance the capability of social interaction and political participation.

Lifelong education and LLL have been subject to debate among scholars since the 1970s. The attention gradually shifted to the latter because learning takes place through systematized formal interventions, and through experience and knowledge acquired by non-formal and informal forms of learning. In the European Employment Strategy, LLL is an 'all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills

[2] Amartya Sen's (1999) capability approach to development entails much more than increasing income and wealth. Poverty is understood as a deprivation of basic capabilities in the form of high mortality, significant under-nourishment, morbidity and widespread illiteracy. Poverty is, thus, a limitation on freedom. For Sen, the enhancement of human freedom is both the main objective and the means of development. The bases of human freedom are economic facilities, political freedom, social opportunities, transparency guarantees, and protective security. People must be actively involved in shaping their own destinies, and not be passive recipients of development programs. In this context, AE is important to enable and empower communities to realize social, political and economic freedoms.

and competence' (European Commission, 2000, p. 3). According to Torres (2013, p. 67), LLL was developed to provide 'a unified and compelling vision of the future' and to produce change.

Delors (1996, pp. 86-91) argues that LLL is founded on four pillars of education: learning to know (mastering instruments of learning instead of acquiring itemized or structured knowledge); learning to do (equipping people for the types of work needed now and in the future including innovation and adaptation of learning to future work environments); learning to live together and with others (peacefully resolving conflict, discovering other people and their cultures, fostering community capability, individual competence and capacity, economic resilience, and social inclusion); and learning to be (education contributing to a person's complete development: mind; body; intelligence; sensitivity, aesthetic appreciation; and spirituality). UNESCO (2005c) suggests that the principles from the four pillars should be cautiously followed in the design of carefully planned and culturally relevant adult literacy programs.

Ouane (2008) has suggested an additional fifth pillar—learning to change and to take risk. Learning to change refers to proactively directing or redirecting change for human well-being and development (Torres, 2003). This means to take account of past as well as future contexts for LLL, linking learning at all levels of education with national and human development aspirations (Preece, 2013). In the view of Hoppers and Yekhlef (2012), LLL is lifelong, voluntary, and self-motivated pursuit of knowledge for either personal or professional purposes. The notion of 'accidental learning' throughout life could perhaps be added to the concept of LLL (Power & Maclean, 2011). According to Walters, Yand, and Roslander (2012), LLL is multi-dimensional and has three components. The first is life-wide learning that relates to the breadth of learning across family, cultural settings, communities, work and leisure. The second is life-deep learning that relates to contemplative, meditative, spiritual learning practices. The third one is lifelong learning that relates to the four stages of life: childhood (includes children and young people who are dependent); productive age (when people can enhance productivity and prosperity); maturity age (older people who are still active and engaged); and old age (when people are dependent due to old age). In short, LLL in its broadest sense is a continuous process that embraces all kinds of learning from early to late life.

To Walters et al. (2012), LLL includes learning behaviors and obtaining knowledge, understanding, attitudes, values and competencies for personal growth, social and economic

well-being, democratic citizenship, cultural identity and employability. In addition to social inclusion, active citizenship and personal development, LLL also aims to enhance competitiveness and employability (Baku, Asiegor & Boakyi-Yiadom, 2011). Formal, non-formal and informal forms of learning are often considered as inseparable for which reason there is growing recognition of 'the porous boundaries between different forms of education and learning' (Walters et al., 2012, p. 26; Walters and Cooper, 2011).

Torres (2006), Walters et al. (2012), and Nafukho, Amutabi and Otunga (2005, p. 6) claim that LLL can potentially assist people in sustainable socio-economic development. Nafukho et al. (2005, p. 6) argue that adult education and LLL are crucial for Africa to achieve meaningful and sustainable development in the future. Preece (2013, p. 103) argues that 'LLL agendas have to harness the *local knowledge*, *talent* and *wisdom* of Africa by drawing on its own context specific heritage—but within a modern frame of reference' (Preece, 2013, p. 103). However, positioning AE within the LLL perspective is challenging, especially for African countries such as Ethiopia, because of low levels of human, material and financial capacities.

Considering the fact that AE should be situated within the perspective of LLL, it is important to have a general understanding of ALE as a principal component of AE. The following discussion is on ALE in relation to the two important concepts of the study: empowerment; and SD.

1.4 Understanding Adult Literacy Education within the Context of Empowerment and Sustainable Development

1.4.1 Adult Literacy Education and its Models

According to Stromquist (2009, p. 75), the social relevance of literacy can enhance the empowerment of learners. In other words, ALE that considers the local context and responds to the needs of learners is empowering. Furthermore, empowering ALE is important to support SD.

Scholars have defined literacy differently. Okech (2009, p. 17) states: 'to talk meaningfully about literacy, it is important to adopt a common basis of understanding the concept of literacy'. He defines literacy as:

> The meaningful acquisition, development and use of reading and writing (also for numeracy purposes) in everyday life, as a tool for self-expression, information, communication, LLL, work and civic participation, and as a means to improve one's life and to contribute to family, community and national transformation and development (p. 17).

This definition implies that literacy, improvement of the learner's life, and social and national development are interrelated.

ALE is marked by a high level of diversity in terms of structure, delivery, and philosophy and performs different roles in different parts of the world, whether industrialized Europe or a developing country (Tett & St. Clar, 2010). Adult literacy can be carried out in diverse settings (in formal schools, church basements, workplaces, or community settings), can be delivered by professionally qualified facilitators or unqualified volunteers, and can be provided to employed or unemployed, women or men, and full-time or part-time learners. Each context is supposed to require the design and implementation of a distinctive literacy education.

According to Papen (2005), there are different ways of conceptualizing adult literacy, each relying on different understandings of learning. The major ones include the functional, the critical, and the social-practices models. The *functional model of literacy* is the ability to use skills to perform certain tasks in domestic or work life. In this model, skills are the foundation for other functions. As a result, they are taught in a generic fashion and transfer across situations is understood largely as unproblematic (Culligan, 2005). The functional, vocational approach resulting in a discourse of literacy as technical skills and vocational competence has achieved more popularity globally. The *critical literacy*, which is associated with the Brazilian educator Paulo Freire, refers to the potential of literacy as both 'reading the word' and 'reading the world' (Freire and Macedo, 1987). Its pedagogy aims at making participants understand their world in terms of justice and injustice, power and oppression, and transformation (Papen, 2005). The proponents of critical literacy believe that it is the only means to empower learners. The *social-practices model* on literacy looks at reading not only as a skill, but also as a social activity that is always situated in particular cultural and historical contexts (Barton, Hamilton, & Ivanic, 2000; Papen, 2005).

Each literacy model has drawbacks. Targeting only the mastery of literacy and numeracy skills makes the functional model reductionist. The claim that only critical literacy can attain psychological empowerment of learners implies that this is not possible through functional and social practices models. The social practices advocates focus on local context without

concerns for the capacity of literacy to achieve improved participation of learners in the economic, social and political spheres. And just like the understandings of literacy and its purposes differ in different schools of thought, so does the understandings of its outcomes.

1.4.2 The Effects of Literacy

There are different understandings of the outcomes of adult literacy. Lind (1985), Gee (2007) and Freire (1970) discuss its negative effects, for example, as an instrument for social control (Lind 1985; Gee, 2007) and negatively contributing to development (Lind, 1985). Freire (1970) argues that literacy conducted by oppressors dehumanizes, domesticates and reinforces social injustice in the learners. As cited in UNESCO (2005c, p. 138), Graff (1987) argues that literacy programs and written materials can be a mechanism to indoctrinate people to participate uncritically in a political system. Literacy education delivered in official languages can lead to the extinction of local languages.

According to UNESCO (2005c, p. 138), it is difficult to provide 'a systematic, evidence based account of the benefits of literacy' for several reasons. First, most studies fail to separate whether the benefits emanate from attending a school or a literacy program or both. Second, adult literacy education is under researched and available studies focus primarily on women. Third, literacy studies emphasize literacy impact on the individual, not on the family/community/national/international arena. Fourth, some effects of literacy, including those on culture, are inherently difficult to define and measure.

Despite the various challenges associated with adult literacy studies, many scholars report the benefits of literacy programs. Adult literacy enables learners to master basic reading, writing and calculating. Literacy not only improves the lots of the needy, but also contributes to nations' overall social and economic development (Coombs, 1985). Literacy promotes effectiveness in addressing economic, socio-political, educational, cultural and environmental issues (Davidson, 1990). Literacy can thus liberate the poor from ignorance, disease and hunger.

Gray (1990) has also identified what gives a literate person an advantage over one who is not, i.e. the empowering capacity of literacy. According to Gray, literacy helps to meet many of the literates' practical needs of daily life and to improve their standard of living, their economic status through engaging in vocations, and their individual and group activities that require knowledge of reading and writing. This eventually helps them gain social prestige, understand community activities, and meet their civic obligations, such as voting.

International organizations and scholars have also recognized other benefits of literacy. According to UNESCO (2005c, p. 22), participation in literacy can be linked to wide-ranging benefits, for example individual self-esteem, confidence and personal empowerment, increased civic engagement (including in labor unions, community activities or politics), and knowledge of health and family planning. Literacy is a highly powerful facilitator of cultural and societal transformation (Olson, 1977; Goody, 1977; UNESCO, 2005c). Greaney (1996) argues that there is an important link between literacy rates and overall development levels of a country in terms of increase in the Gross National Product (GNP), primary and secondary school enrollment, life expectancy, and newspaper circulation, etc. Psacharopoulos and Woodhall (1985) also claim that the literacy rate is important to enhance human capital that facilitates economic development. Adults who learn to read benefit not just themselves but also the whole community as they become examples for their children and grandchildren and can better serve their community (Selber, 2004). In addition, for Levine (1994), literacy can be an instrument to integrate the poor and the marginal in society or as a way to participatory democracy. Equally important, it is less costly to train literate people since their post-literacy empowerment becomes easier (Ayodele and Adedokun, 2012).

As Scribner and Cole (1981, p. 236) explain, 'literacy is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use'. Through its scope for enhancing learner capacities and practices (to access and use information, critically engage with issues and institutions relevant to one's life), and having the confidence and space to make one's voice heard, literacy has proved itself to be a powerful aspect of the development response to poverty, vulnerability and isolation (Betts, 2002). According to UNESCO (2005c, p. 143), literacy education participants, particularly women, can increase their voice in household discussions because of their experience of speaking in the 'public' space of the class. For Rogers and Street (2012, p. 84), literacy can sometimes result in a 'sense of belonging, confidence to play a larger role in the public spheres, a new sense of identity'.

All benefits discussed so far can be associated with what Stromquist (2009, pp. 64-66) calls literacy's empowering potentials, namely improvement of the cognitive, economic, political and psychological perspectives of the learners. The benefits also imply the positive effects of literacy for socio-cultural empowerment of learners. According to Stromquist, the impacts of ALE can be studied indirectly, usually by recording the learners' feelings about self-esteem, self-efficacy and self-confidence that are the foundations for the development of citizenship,

and by observing learners' behavioral change in political and community participation, decision making etc.

Based on these discussions, one can argue that the contribution of ALE to learner empowerment is an essential ingredient of SD. Empowerment in relation to ALE refers to the set of feelings, knowledge, and skills that permits a learner to participate in his/her social environment and affect the political system (Stromquist, 2009, p. 64). According to the UNESCO World Conference on Education for Sustainable Development (2009a), Education for Sustainable Development (ESD) addresses the ideals and principles of sustainability and includes issues, such as poverty reduction, sustainable livelihoods, environmental protection and restoration, natural resource conservation, climate change, gender equality, social cohesion, and protection of indigenous cultures in an integral way. ESD constitutes a comprehensive approach to the quality of education and learning, including ALE. It comprises all sectors of society and all forms of education—formal, non-formal and informal—in a lifelong process (UNESCO World Conference on Education for Sustainable Development, 2009a). This suggests that ALE as non-formal education can be delivered within the ESD framework.

In the same document, it is also claimed that the provision of ALE is a fundamental human right and a means to developing the capabilities of marginalized adults. When addressing the particular circumstances of the learners, it can positively contribute to their lives. Political will and overall capacity of the providers may however affect implementation. The central argument is that a well planned and implemented ALE program can empower adult learners by educating them, changing their behavior, and developing their competencies to act. It can also positively contribute to SD—developing a sustainable environment, economy, society and culture.

With this in mind, the current study explores IFALE's implementation and contributions to empowerment and SD in two regions of Ethiopia, namely Tigray and Amhara regions. The regional comparison may help to identify contextual factors that contribute to achieving these goals. The study systematically investigates the contributions of literacy education to the lives of rural participants of both sexes, identifying literacy benefits at individual, family and societal levels. The study fills the void of knowledge on Ethiopian adult education specifically and also contributes to the general understanding of the function and outcomes of adult education programs which is essential to the field of comparative and international education.

1.5 Research Questions and Organization of the Study

The general purpose of the study is *to investigate the implementation of Integrated Functional Adult Literacy Education (IFALE) and its contributions to rural learners' empowerment and SD in Ethiopia through a comparison of Tigray and Amhara regions.*

This is done through seeking answers to the following specific research questions:

1. How successful is IFALE in terms of implementing the strategy of a relevant curriculum?
2. How successful is IFALE in terms of implementing the strategy to build an efficient institutional system?
3. What is the contribution of IFALE to political empowerment?
4. What is the contribution of IFALE to economic empowerment?
5. What is the contribution of IFALE to socio-cultural empowerment?
6. What is contribution of IFALE to psychological empowerment?
7. How does IFALE support SD in the country?

In order to answer these research questions, the study uses a case study exploratory mixed-methods design.

The study has ten chapters. Following this introductory chapter, Chapter Two provides the background and context of ALE in Ethiopia in a historical perspective. Chapter Three reviews existing ALE research, including empirical studies, and discusses theoretical lenses of relevance to the study. It focuses in particular on ALE design, implementation and impact studies, as well as theoretical discussions of empowerment, SD (focusing on ESD), and literacy models. Chapter Four discusses evidence for use and develops the analytical model for the study based on the previously outlined empirical studies and theoretical discussions.

Chapter Five presents realism as the philosophical foundation for the study followed by the research design and methods of the study. It explains the comparative case study design and study locations, the exploratory sequential mixed methods design employed, and the sampling and instruments of data collection. It also discusses the techniques of data analysis, reliability and validity issues, and ethical concerns of the study.

This is followed by the comparative analysis of the original data collected on IFALE in Chapter Six to Chapter Nine. Chapter Six explores the implementation of IFALE, particularly

the strategies of delivering a relevant curriculum and building an efficient institutional system. Chapters Seven and Eight examine the way IFALE contributes to learner empowerment and supports SD. Chapter Nine discusses the key findings of the study, reflects on the major conclusion and presents the implications for advancement of knowledge and for policy-making.

Chapter 2
Adult Literacy Education in Ethiopia

Ethiopia is the oldest sovereign nation in Africa. In 2015, the population of the Federal Democratic Republic of Ethiopia was approximately 99 million (World Bank, 2016a) of whom more than 80% live in rural areas. The country is composed of nine national, regional states as well as two city administration states, Addis Ababa and Dire-Dawa (Figure 2.1). The national, regional states and the two administrative cities are sub-divided into eight hundred weredas and around 15,000 kebeles (5,000 urban and 10,000 rural).

Located on a massive and rugged mountainous plateau in Eastern Africa, Ethiopia covers about 1.12 million square kilometers. It is the tenth largest of the 54 African countries. While being a natural fortress that discouraged many foreign aggressors, the mountainous terrain has also posed difficulties for communication, transportation, and the spread of education.

This chapter presents the development of education during different historical periods with a particular focus on adult education. It is presented in the context of changing governments and of world trends in adult education.

Figure 2.1 Map of Ethiopia
Source: http://commons.wikimedia.org/wiki/File:Ethiopia_regions_english.png (image copied 27 March, 2014).

2.1 The Introduction of Education into Ethiopia

Ethiopia had its own alphabet in the fourth century. During this period, King Ezana of Axum opened church schools to perpetuate Christianity, marking the beginning of formal education. The church schools achieved their "golden age" of expansion between the 13th and 16th centuries (Hable-Selassie & Tamrat, 1970). The schools helped to create a unique Ethiopian literary tradition. The Kibre Negest (Glory of Kings) script of the 14th century that starts with an account of Queen Sheba and King Solomon and links the Ethiopian kings to the House of Israel (Budge, 2001; Dejene, 2008) is a vital example. According to Levine (1974), this manuscript was the script for the Tigrayan and Amhara societies for many centuries. A small minority—who had studied Ge'ez, an ancient liturgical language used for religious services—could understand the script.

Until the start of the 20th century, education in Ethiopia was restricted to religious institutions. Throughout the country's long history, the Orthodox Church schools have taken the responsibility for producing literates in the Ge'ez language. The schools taught learners who filled the religious system and provided church services. Later, the schools offered religious education not only to the children of the aristocracy, but also to the sons of the tenant farmers and servants of the elite families. Even today, these schools teach religious education to many young learners in rural as well as urban areas of the country in order to prepare them for church positions and services and/or to get them to sustain their Orthodox Christian faith. Since the seventh century, the Koran schools have provided religious education in Arabic to followers of the Muslim religion, but the Orthodox Church organized most of the education.

According to Kebede (2006) and Molla (2008), literacy and basic education were instruments of development and modernity in the 1890s. Emperor Minilik II issued a declaration in 1893/4 stating that every child, male or female, should get an education after the age of six. However, parents did not know that they had to send their children to modern secular education nor were there schools to enroll learners. The fact that the church education system could not satisfy the demands of those who worked in government, business, and external relations resulted in the opening of government funded secular education at the beginning of the 20th century (Teferra & Altbach, 2003).

A major stride in the history of secular education occurred with the opening of the Menelik II School in Addis Ababa in 1908 (Pankhurst 1962; Negash, 1996) and the gradual expansion of

schools in Ankober. The Orthodox Church saw the start of secular education as a challenge to traditional Ethiopian religious values. To resolve the discontent of the Church, Emperor Menelik (1889-1913) agreed with Abuna Matwos—the Patriarch of the Ethiopian Orthodox Church—that the modern Egyptian Coptic teachers, who were introducing modern methods of schooling and teaching young Ethiopian students the Orthodox Christian faith, had to run the modern schools. According to Pankhurst (1998), teaching was for a limited number of urban students and combined foreign languages (including French, English and Arabic), elementary mathematics, and rudimentary science with Amharic and religious subjects. French was the main medium of instruction as it was the principal foreign language of the country.

Each government, from the rule of Emperor Haile-Selassie to the current government, has made its own efforts to expand modern education. The education system of both the imperial and the Derg military systems has been considered rigid, unjust, inefficient, and irrelevant to the life of the people (Bishaw & Lasser, 2012). Nowadays, there are significant efforts to expand general education but its quality is low.

2.2 Adult Literacy Education during Imperial Rule (1930-1974)

The literacy endeavors of the imperial period marked the beginning of adult literacy efforts through state initiatives. There were two main efforts: the earlier initiatives, and the Work-Oriented Adult Literacy Program of UNESCO.

2.2.1 Early Adult Literacy Education Efforts, 1948-1964

Before the end of the Italian invasion in 1941, adult basic literacy initiatives were unrelated to an official policy (Kenea, 2014). The 1944 Memorandum on Educational Policy that stipulates free education for all at all levels of education was an important milestone even if the national capacity was too weak to carry out mass education, and the awareness of people concerning education was low. The Memorandum emphasized the importance of both adult education and adult literacy (Kenea, 2014). Scholars, such as Inquai (1998) and Kebede (2005), believe that adult education started in 1948 after the establishment of the emperor financed institute aimed at supporting the education of adults, the Berhaneh Zare New (which means *your light is today*). According to Bekele (1966) and Sandhaas (2009), this was the

time when evening shift classes started in almost all schools of Addis Ababa and in the Addis Ababa University College.

The 1944 memorandum merged formal and non-formal education, including literacy education. Niehoff and Wilder (1974) argue that there was no apparent special attention to literacy education separate from formal education until 1955. In November 1955, Emperor Haile-Selassie made an announcement in an Amharic newspaper (Kenea, 2014; Werqneh, 2011) which read:

> We charge every illiterate Ethiopian between the ages of eighteen and fifty to learn in the time left over from his daily task such fundamental education[3] as will enable him to know Amharic reading and writing, either at government schools or private, existing in the neighborhood, or by employing a private teacher in his particular village or district (Niehoff & Wilder, 1974, p. 12).

The announcement gave responsibility for coordination to the MoE and demanded that both the clergy and government employees support the process of implementation together with government, private, charity and religious organizations (Kenea, 2014).

Soon after the announcement was official, there was an agreement with UNESCO to launch a center that trained 'fundamental educators'[4] to be engaged in rural areas with the main responsibility of teaching literacy skills (Niehoff & Wilder, 1974; Tekleyesus, 2004). The center opened in Debre-Berhan in 1958. The program offered training to all family members of the future fundamental educators: men had training in methodology, agriculture, community development principles, health, etc. whereas women and children learned home economics and conventional primary education, respectively. According to Niehoff and Wilder (1974), the program taught 179 fundamental educators with their families until 1960 when it terminated for unknown reasons. Furthermore, fundamental schools that included adult education changed into primary schools for children between three and five years old.

According to Kenea (2014), the announcement showed no strong commitment since most of the responsibility was left with the illiterate adults themselves. It did not appear in the national *Negarit Gazetta*, a newspaper publishing binding legal provisions or proclamations (Kenea, 2014). According to Wagaw (1979), the country did not have the capability to implement it. The announcement shows that the majority of Ethiopians were to learn basic literacy in

[3] Fundamental education refers to the preparation of children or adults without opportunity for effective participation in community life through instruction in basic facts and skills, for example literacy, agriculture, homemaking, hygiene, citizenship (Merriam-Webster Online Dictionary, 2006).
[4] Fundamental educators are people who teach literacy skills.

Amharic despite the range of local languages in Ethiopia. This all had a negative effect on both the continuity and the effectiveness of the literacy programs.

A voluntary association known as Biherawi Yefidel Serawit (Association of the National Army for the Alphabet) was set up in 1954. Its purpose was to expand literacy education to the broader population under the guiding motto 'Let everyone learn' (Sineshaw, 1996; Kebede, 2006). It aimed at enabling illiterate Ethiopians aged 18-50 to read and write in Amharic during their spare time (Mammo, 1982, p. 194). This organization, also known as the National Literacy Campaign Organization (NLCO), whose finances came from donations and international development organizations, was directed by a board of high officials under the patronage of Emperor Haile-Selassie. NLCO relied on volunteer efforts of students and their teachers during the summer vacation, and supplied instructional materials and training programs to its volunteer teachers. NLCO enabled the public to understand the hugeness of the education problem. The program was, however, ineffective because of lack of systematic organization and problems of resource allocation, inadequate training, and lack of commitment of teachers to conduct teaching. Critiques claimed that learners who had not acquired the necessary literacy skills received completion certificates anyway (Mammo, 1982; Niehoff & Wilder, 1974).

In 1967, the Directorate of Adult Education and Literacy (DAEL) was set up under the MoE with the aim of coordinating literacy efforts, collecting statistics, and setting standards. The Directorate prepared instructional materials, instructors' manuals, follow-up readers, and posters besides publishing a monthly newspaper for newly literate people. It also designed a syllabus that covered literacy skills, numeracy, health, civics, and other basic information (Niehoff & Wilder, 1974; Amare, 2006). Based on the contents of the syllabus, the DAEL formulated a standard test to complete the program. The test was open to all learners in any literacy program, be it government or privately run.

The DAEL had a relatively small staff corresponding to its limited duties of coordination and support. The program was carried out by Provincial Literacy Officers (PLO) whose responsibility included organizing programs in their respective province, promoting participation, hiring teachers upon the recommendations of the school principals, conducting training sessions for the teachers, and handling finances.

In 1970-71, there were 901 literacy training centers run by the MoE in the entire country, with 2,140 classes taught by 2,192 teachers, most of whom were volunteers (Niehoff & Wilder,

1974). The literacy teachers received a short training by the PLO or the PLO delegate. They taught four to five times a week for one and a half to two hours per night. They received 40 birr (19.30 United States Dollars/USD)[5] for teaching 80 hours per month. Learning in the literacy program was four months for learners who spoke Amharic as their mother tongue and six months for learners of other mother tongues. However, both types of learners used the same material that was prepared in Amharic. This means that the majority of the learners could not use their mother tongue.

According to Niehoff and Wilder (1974), this literacy effort was significant since it produced a higher number of literates than formal schools. Table 2.1 shows the enrollment in the literacy program during 1964-71. As can be seen enrollment fluctuated, being higher in 1964 than during 1965-68, but generally increasing during 1965-70. The highest enrollment was in 1970. There were always more male than female participants. After successful completion, the graduates were encouraged to continue education in formal education. In 1969, 74,813 (about 33%) of the 228,877 literacy graduates passed the MoE test of whom 44,076 (i.e. more than half) came from three of the fourteen provinces: Tigray (26,564); Gojam (10,353); and Wello (7,106).

Table 2.1: Enrollment in literacy programs, 1964-1971

Year	Males	Females	Total
1964	158,778	35,172	193,950
1965	107,660	14,747	122,407
1966	126,057	19,817	145,874
1967	129,527	23,630	153,157
1968	130,753	42,703	173,456
1969	183,535	45,332	228,867
1970	238,000	59,079	297,079
1971	119,292	38,071	157,363
Total	1,193,602	278,551	1,472,153

Source: Directorate of Adult Education and Literacy, MoE as cited in Niehoff and Wilder, 1974: 171.

2.2.2 The Work-Oriented Adult Literacy Program (WOALP), 1968-1973

After agreements with the Imperial Government of Emperor Haile-Selassie, UNESCO introduced WOALP in early 1968, and Ethiopia joined the countries that were implementing

[5] Haile (2008) citing the World Development Report and National Bank of Ethiopia (2005) states that between 1973 and 1991, 1 dollar was equivalent to 2.07 birr. This rate has been used in the study.

the Experimental World Literacy Program (EWLP), which included WOALP, financed by the United Nations Development Program (UNDP) (Sjöström & Sjöström, 1982).

WOALP planned to teach 78,000 learners in five years using new materials and methods (Niehoff & Wilder, 1974). The UNESCO experts in Ethiopia used the 'Action Research' approach to test and then decide on the best method. WOALP had two types of teachers: literacy teachers trained in teaching the Amharic language for a total of fifteen days by the central staff of UNESCO; and specialist teachers trained for two weeks in the work-oriented components. WOALP classes took place in schools, homes, factories and, in some cases, in classes constructed by peasants.

While the earlier adult literacy efforts primarily emphasized mastering reading, writing and arithmetic (the three R's), WOALP introduced the idea of functional literacy (Kenea, 2014). More importance was given to functional contents that related to the day-to-day activities of the learners. By June 1973, WOALP had almost 25,000 learners taught by 783 instructors in 885 classes. According to Sjöström and Sjöström (1982), the training of instructors, preparation of vocational-technical materials for adults, and relating functional literacy to agriculture or home economic demonstration programs and pre-vocational training were areas in which experience was developed. WOALP raised awareness about the importance of education not only within the government, but also among the public (Kebede, 2006).

The weakness of the program was that it only reached the provincial education offices despite the assignment of a Director General who coordinated the program at the ministry level and that the MoE had neither the resources nor the authority to coordinate other line ministries (sectors) that were to collaborate (Sandhaas, 2009; Kenea, 2014). According to Niehoff and Wilder (1974), the program was too expensive compared to other literacy programs[6].

2.2.3 Summary

The start of adult literacy provision raised the public's awareness about the importance of adult education. However, the shortcomings of the literacy education endeavors of the imperial period were many. In Kenea's (2014) view, access to adult literacy education was restricted to the ones who voluntarily joined the program, which means the aristocratic class and males. During the imperial period, adult literacy policies never considered provision in the learners' mother tongue because of the use of Amharic to maintain a unified country

[6] The US Special Funds was to contribute USD 1,357,957. The Imperial Government was to allocate USD 149,200 in cash and USD 2,058,800 in kind (Niehoff & Wilder, 1974: 178).

(Kenea, 2014), and the government showed no strong political will to carry out literacy initiatives (Amare, 2006).

This, as a whole, resulted in low achievements in both the basic literacy and the functionally oriented programs. According to the World Bank, in 1973 the literacy rate of the population aged 15 and above was 7%, one of the lowest in the world (Sjöström & Sjöström, 1982, p. 35). During the imperial rule, AE played no significant role in empowering people to master skills for participating in activities and issues that affected them.

2.3 Adult Literacy Education during the Derg Military Rule (1974-1991)

After the overthrow of Emperor Haile-Selassie, the Derg Military Regime launched the National Democratic Revolution (NDR) in 1974. According to Bhola (1987), the NDR promised to destroy the soul and structure of the old feudo-bourgeois system and transform culture and technology by eradicating ignorance, ill health, and exploitation. The mass of the population was mobilized through a campaign and adult literacy was essential to realize the goals of the new revolution (Bhola, 1987). There were two kinds of adult literacy campaigns: the Development through Cooperation, Knowledge and Work (or Zemecha), 1974-1976; and the National Literacy Campaign, 1979-1991.

2.3.1 The Development through Cooperation, Knowledge and Work Campaign (Zemecha), 1974-1976

In the Development through Cooperation, Knowledge and Work Campaign, literacy was one of nine programs in the entire country with the greatest focus on rural, including the remote and neglected, areas (Kebede, 2006). The government deployed around 60,000 young campaigners, mostly teachers and students, all over the countryside to perform various development activities, including literacy education, for a two-year term service (Mammo, 1982; Amare, 2006). According to Mammo (1982):

> The campaigners formed over 21,000 peasant associations with a total number of 5 million members. About a million people participated in the literacy program; over two hundred clinics were built in the rural areas with the assistance of the Ministry of Health technicians. During the campaign, 200,000 persons were vaccinated against tuberculosis and 300,000 against smallpox. During the first round of the campaign, nearly four and a half million functional literacy primers were produced in a total of five national languages (p. 194).

The campaign developed scripts, and designed and used literacy texts in four languages that were unwritten at the time. It continued to do translations and text preparations in other Ethiopian languages after the campaign stopped (Kebede, 2006).

Despite its success, Amare (2006) claims that the lack of time to organize the campaign carefully and the organizers' insufficient experience created challenges for the campaigners in terms of understanding the objectives of the campaign, the traditions of the people in the literacy education sites, and the expected pace of change. The campaign ended because of internal problems and the border war with Somalia (Mammo, 1982).

2.3.2 The National Literacy Campaign (NLC), 1979-1991

The launch of the NLC took place on 8 June 1979. It was 'a multi-purpose venture aimed at raising the level of material and cultural life of the people' (Amare, 2006, p. 104). The Campaign had a number of objectives aiming at transforming the lives of the mass of the population. These included to emancipate the masses from illiteracy without hampering their day-to-day activities and in the languages they best understood; to strengthen and upgrade the skills gained through literacy and lay down a strong foundation for further education; and to encourage and promote the development of political consciousness, economic prosperity and social maturity (MoE, 1986, p. 3).

The NLC was to teach adults both literacy and functional skills to increase their productivity from the fields (rural learners) and in factories (factory-workers). It originated in socialist thinking. Of the total population (estimated in 1974 at 26.6 million), the NLC targeted 18.5 million illiterates aged 15-45 years[7].

The objective of the NLC was to eradicate illiteracy from the urban areas by 1982 and from the rural areas by 1987. This did not materialize partly because the total population was higher than first predicted and because of the severe drought and famine in the early 1980s, and the ongoing civil war. The target for the eradication of illiteracy was postponed until 1984 for urban areas and 1992 for rural areas (Bhola, 1987)[8].

The NLC Teaching and Learning Process

According to Werqneh (2011), the core contents of the campaign were the 3Rs (reading, writing, and arithmetic). There were three types of classes (beginners, remedial and post-

[7] According to some sources, it also targeted learners aged 8-45 (Werqneh, 2011). Bhola (1987) states that the official age for joining NLC was 8 to 60 years but in reality, it ranged from 3 years old to the very old.
[8] Werqneh (2011) claims that the target date was changed from 1986 to 1994.

literacy) with different time allotment and contents. The beginners' classes had six hours a week and 3 hours a day (Bhola, 1987, p. 13). Adults learned how to read and write in 312 hours of instruction, of which 240 hours were for basic skills and 72 hours for practice on functional readers (Bhola, 1987). It included the alphabet, forming words, Arabic numerals and the four mathematical operations (Werqneh, 2011). The literacy classes also included the teaching of the socialist ideology (Amare, 2006). Teaching was by rote: learners repeated the alphabet chart which, according to Bhola (1987), was what learners preferred. The program relied on volunteer teachers and recruits (e.g., 12^{th} grade students, school teachers, civil servants, and retirees).

The remedial classes had 288 hours for learners who failed to gain a certificate at the beginners' class. The post-literacy classes were follow-up programs in the literacy center for learners who had already earned a certificate (Bhola, 1987). The post-literacy reading, writing and computation materials had contents on environmental education, basic agriculture, health, home science, appropriate technology, cooperatives and socialist education, and political/ideological education (Werqneh, 2011). There were 120 hours of instruction in the post-literacy classes based on post-literacy readers. This served as a basis for continuing education (Bhola, 1987).

According to Bhola (1987), the literacy classes enabled learners to do some literacy activities, such as reading newspapers, magazines and posters, calculating land areas and crop yields, making a budget, and communicating in writing with friends, family, and local and other government agencies.

Training, Support, Institution Building, and Networking

According to many government sources, it was compulsory for both the management and the teaching staff to join NLC (Werqneh, 2011). Literacy teachers were trained for 2-3 days (instead of the originally planned 7-9 days) in how to use the materials and radio programs, how to do peer teaching and how to teach agricultural skills, health, hygiene, family and guidance, and political education.

NLC started in urban centers and spread to remote rural centers. There were 1.5 million people volunteers and more than 22 million reading booklets and 9 million primers were distributed to beginners and post-literacy learners, respectively (Abate, 1993). There were follow up courses equivalent to grade four enabling many learners to enroll in formal education. The total financing for NLC was 517.88 million Ethiopian birr (around USD 209

million) up to the 19th round in 1989 provided by the government, local communities, local and international organizations, and Ethiopian communities living abroad (Kebede, 2006; Werqneh, 2011, p. 80).

In order to strengthen institution building and networking, a separate Department of Adult Education (DAE) was set up in the MoE with a highly articulated planning and implementation system for NLC (Bhola, 1987; Amare, 2006; Kebede, 2006). DAE became the secretariat of the National Literacy Campaign Coordinating Committee (NLCCC)—a policy-making body with 28 representatives from government agencies, mass organizations, and professional and religious institutions. The NLCCC committee met once or twice a year with the Minister of Education as the Chair, while the executive committee of the NLCCC met each fortnight to handle the recurrent problems and decisions.

The National Literacy Coordinating Committee (NLCC) had four sub-committees in the MoE: the Educational Materials, Procurement and Distribution Committee; the Recruitment, Training and Placement Committee; the Propaganda and Aid Coordinating Committee; and the Data Collection, Supervision and Certification Committee. Sub-committees were also set up in the fourteen major regions, in the capital of Addis Ababa, in 106 awrajas (sub-regions) and in 588 weredas. At the grassroots level, 20,000 Peasant Associations (PA) and Urban Dwellers' Associations (UD) supported the NLC by employing literacy campaign officers that looked after the literacy centers, reading rooms and listening forums and supervised literacy instructors in literacy centers and sub-centers located in small and remote communities. There were in all nine layers from the top (MoE) to the bottom (the center) required to work under what was known as bureaucratic centralism (Kebede, 2006; Werqneh, 2011).

The NLC was implemented in collaboration with organizations such as Awraja Pedagogical Centers (APCs), Basic Technology Centers (BTCs), Community Skill Training Centers (CSTCs) and Basic Development Education Centers (BDECs) (Bohla, 1987). The campaign also worked in partnership with the educational radio, distance (or correspondence) education and night schools.

Benefits, Problems and Challenges

According to Kebede (2006) and UNESCO (2005c), the NLC taught 22 million people (of whom 52% were females). Over 20 million adults (51% females) passed the beginners' literacy test (UNESCO, 2005c) and received certificates for basic skills in reading and writing

(Negash, 1996). This meant that the literacy rate in the country increased from less than 10% during the Emperor Haile-Selassie regime to over 60% in 1990/91 (Abate, 1993).

Both the use of the mother tongue for literacy education and the opportunity to continue training in formal schools were significant benefits. The NLC employed fifteen different languages for both teaching and material preparation in the literacy and post-literacy training, meaning that 93% of the learners could use their mother tongue (Kebede, 2006; Abate, 1993; Molla, 2008). This led to a cultural rebirth for many nationalities whose languages had been unwritten. Even more, the campaign provided thousands of people with the opportunity to join formal education (Kebede, 2006; Molla, 2008). Successful completion of literacy education in the NLC was equivalent to grade two in formal primary school and provided access to grade three in formal education (Amare, 2006).

The increased literacy levels seem to have led to learners' higher awareness of their political environment and to skills that were functional for them both as citizens and as producers (Bhola, 1987). Amare (2006, p. 109) argues that literate parents understood the importance of education and contributed actively, for example, to setting up Community Reading Rooms and assisting teachers in the CSTCs. The campaign has also been viewed as a tool of domination since the promotion of the socialist ideology among the learners led to lack of questioning rather than developing critical, inquisitive and independent thinking of the learners (Woldemeskel 2005; Amare, 2006; Kenea, 2014).

The NLC gradually suffered from 'campaign burn-out' among its organizers as the campaign extended over a period of ten years. The forced use of teaching staff and shortage of instructional materials in many places led to relapse into illiteracy among many neo-literates, while graduates who enrolled in formal education faced challenges because of the use of Amharic instead of their mother tongue as the medium of instruction. Added to this were the severe famine of 1985 and the continually expanding civil war after mid-1988.

2.3.3 **Summary**

Despite positive features, the benefits from the Derg's adult literacy programs were temporary and did not make most learners participants in the economic, social and political domains. The Development through Cooperation, Knowledge and Work Campaign (1974-1976) introduced the use of other mother tongues than Amharic as the medium of instruction and for texts used in adult literacy education. It also mobilized tens of thousands campaigners who

amongst others provided educational opportunities for much wider groups of the rural population.

However, the campaign encountered two basic problems: poor preparation; and lack of experience among campaigners. The NLC, which depended on voluntary unpaid teaching, prepared primers in fifteen languages and liberated tens of millions from illiteracy. This was, however, done in strict accordance with socialist ideology which deprived learners of their own free thinking. The campaign suffered from an inadequate government budget and eventually from 'campaign fatigue'. Above all, insufficient efforts were made to prevent neo-literates from relapsing into illiteracy.

2.4 Adult Literacy Education during the Ethiopian Peoples' Revolutionary Democratic Front (EPRDF), 1991-now

In May 1991, EPRDF ousted the Derg regime and a Transitional Government including all the opposition parties led the country from July 1991 to May 1995. The new government came into power at a time when the world witnessed the end of the cold war, the demand particularly from multilateral organizations (the World Bank and IMF) for structural adjustment, and the publication of the World Declaration on EFA. The EFA policy reinforced the focus globally on primary education which led to massive donor support for primary education in the developing world, including in Ethiopia (Lind, 2008).

In April 1994, the Transitional Government of Ethiopia issued a new Education and Training Policy (ETP) that led to a reform of the education system. The ETP and especially the ESDPs I-II (1997-2005) addressed problems of access, equity, quality and relevance in formal education, with most attention given to primary education. Adult education and adult literacy were not addressed. Neither did they form part of the Agricultural-Development-Led-Industrialization (ADLI) strategy that was first articulated in 1993. The lack of government emphasis meant that NGOs were virtually the sole provider of adult literacy programs which were conducted outside of the general policy context.

2.4.1 Adult and Non-formal Education (NFE) in the Education Sector Development Plan (ESDP I) and the Education Sector Development Plan II (ESDP II), 1997/8-2004/5

The ETP states that NFE is to be taught and incorporated with basic education at all levels of formal education. Adult and NFE was a three year cycle of basic education (equivalent to formal basic education grades 1-4) taught to out-of-school children aged 7-14, and to youth and adults aged 15 and above. In 2000/01, the former group included 320,581 children, and the latter group had 1,049,061 individuals. During the ESDP I period (1997/1998-2001/2002), the dropout rate for youth and adults was 16% (MoE, 2002, p. 23).

In ESDP II, the MoE set targets for the Adult and NFE program that were to be achieved through participation and contribution of communities and NGOs (MoE, 2002). They concerned the setting up of new skills training and basic literacy centers, reaching more out-of-school children and youth and adults, training of adult trainers in skills, and ensuring that the first cycle of formal primary education (1-4 grades) and alternative non-formal education programs were linked.

Table 2.2 shows enrollment in adult and non-formal education in 2003/4 across most of the regions in Ethiopia. Oromia, Amhara, SNNP and Tigray were particularly successful. As in the earlier period, there were fewer female than male learners.

Table 2.2: Enrollment in adult and non-formal education, 2003/4

	7-14 years			15 years and above			
Regions	**Females**	**Males**	**Total**	**Females**	**Males**	**Total**	**Grand total by region**
Tigray	14,316	17,528	31,844	5,886	10,549	16,435	48,279
Amhara	____	____	____	____	___	___	212,337 (F=99,712; M=112,625)
Oromia	207,689	268,508	476,197	108,350	243,862	352,212	828,409
Benshangul-Gumuz	1,626	2,650	4,276	1,232	3,650	4,882	9,158
SNNP	37,875	44,893	82,768	35,648	39,300	74,948	157,716
Gambella	855	926	1,781	2,476	2,589	5,065	6,846
Harari	___	___	___	672	2,825	3,497	3,497
Addis Ababa	11,612	6,043	17,655	17,972	9,136	27,108	44,763
Grand total	273,973	340,548	614,521	172,236	311,911	484,147	

Source: MoE 2005, p. 7; Kebede 2006, p. 16

Despite some achievements, for example concerning the preparation of the curriculum and improved methods of teaching adults and youth, most problems continued to exist.

2.4.2 Adult Literacy in ESDP III (2005/6-2009/10) and the National Adult Education Strategy (NAES), 2008

Unlike the first two ESDPs, ESDP III included the Functional Adult Literacy (FAL) program for youth and adults aged 15 and above despite the fact that there was no adult education strategy until 2008. The program aimed at enhancing the participation of communities in national development and poverty reduction strategies in addition to making adults more productive and self-reliant. The program was to address the problem of gender disparity, reach 5.2 million adults, and train 143,500 adults in different skills in the existing 287 CSTCs through the Basic Skills Training Program (MoE, 2005). The MoE (2005) required support from all stakeholders (partner ministries, NGOs, local governments, communities).

In 2008, the MoE together with its partners prepared the National Adult Education Strategy (NAES) whose focus is to impart knowledge and skills to the adult population and to facilitate conditions for the provision of the Functional Adult Literacy Programs (FALP) (MoE, 2008). It also calls for an expansion of quality, relevant and equitable adult education programs accessible to all. It argues that each human being—irrespective of color, religious background and economic status—has the right to basic education. The strategy seeks to develop the knowledge, competencies and skills, attitudes and behaviors that would allow adult learners to contribute to all aspects of Ethiopia's development. Adult education, more specifically Integrated Functional Adult Literacy (IFAL) should enable adult learners to acquire knowledge and skills in areas such as agriculture, health, civics and culture to achieve accelerated and sustained development (MoE, 2008, p. 2). The national adult education task force also developed the National IFALE Curriculum Framework, the FAL Implementation Guidelines, the FAL Facilitators Training Manual, and the FAL Benchmark manuals.

An Adult and Non-formal Education Unit was set up under the MoE. A Memorandum of Understanding was signed between the MoE and five other collaborating ministries ensuring the creation of an Adult Education Board and a technical committee that were to also be set up throughout the decentralized structure down to the wereda level. Each region assigned an adult education focal person responsible for follow up of the adult literacy education programs.

However, the new targets were not met and most potential learners had no access to ALE that could help them gain the attitudes, knowledge and skills for a better life. The NAES did lead to new plans and programs, in particular Learning for Life: A Master Plan for Adult

Education in Ethiopia (2010-2020). NAES was also crucial for the inclusion of Integrated Functional Adult Education (IFALE) in ESDP IV and ESDP V.

2.4.3 Links between IFALE, Learning for Life: A Master Plan for Adult Education in Ethiopia (2010-2020) and ESDP IV (2010/11-2014/15)

The Master Plan for Adult Education in Ethiopia (2010-2020) was developed particularly with support from Institut für Internationale Zusammenarbeit des Deutschen Volkshochschul-Verbandes (Institute for International Cooperation of the German Adult Education Association, IZZ/DVV-international) while other stakeholders played minor roles (MoE, 2010a). According to MoE (2010b), the plan is a general framework that assesses the main challenges and opportunities in adult education in Ethiopia and presents a shared strategic direction for adult education. The plan enables all stakeholders to deliver good quality adult education using existing resources, mobilizing new ones, and strengthening planning, governance and financial management practices (MoE, 2010a). The document has a clear vision, purpose, founding principles, and pillars for adult education.

The vision is 'to create a literate, well-informed, knowledgeable and skilled population of youth and adults who realize their own potential and maximize their contribution to society, Ethiopia's economy and future generations' (MoE, 2010a, p. 2). The purpose is to provide the necessary structures, programs and tools in order for every youth and adult in Ethiopia to have access to quality adult education services whose special focus is integrated functional education (MoE, 2010a).

The plan identifies eight founding principles and six major pillars of adult education. The founding principles consider adult education a part of strategic plans and policy directions. It is part of LLL, and should be based on a quality framework, be learner-centred and address the needs of the learner. The core focus is on IFALE (MoE, 2010a). The pillars address issues of content of adult education programs and approaches, governance, training, assessment, monitoring, evaluation and reporting, research and knowledge transfer, and costing and financing.

The plan also discusses the nature, delivery and relevance of Ethiopian adult education with a special focus on IFALE. Adult literacy should build on indigenous knowledge and link writing, reading and numeracy skills to livelihoods and skills training in areas, such as

agriculture (including off-farm activities), health, civics, and cultural education. This requires collaboration between the government and NGOs. The literacy skills should be meaningful to the learners since relevance and utility are the keys to accelerate skills acquisition and help learners expand their knowledge base through other learning opportunities. Livelihood and life skills are essential in a successful Integrated Functional Adult Literacy Program (IFALP).

ESDP IV (2010/11-2014/15) (MoE, 2010b) addressed four expected outcomes and nine key outcome targets for adult education with a special focus on IFALP. These were to improve democratic and good governance culture through expansion of adult education; to make economic development more sustainable through quality and relevant adult and non-formal education; to create an efficient institutional system for adult and non-formal education; and to attain significant improvement in adult literacy. The outcome targets included, amongst others, to reach 95% of the 36.4 million (later adjusted to 19.4 million) illiterate adults and reduce regional and gender gaps, to undertake adult literacy training aimed at linking literacy to livelihoods, to increase the number of trained facilitators and instructors, and to identify and share best practices and materials. The Master Plan for Integrated Adult and NFE should be utilized and implemented by all stakeholders and the National Adult Education Board be made operational.

The government budgeted about 12 billion Birr (approximately 571 million USD) constituting 9% of the budget allocated for the education sector and 90% of the total cost for IFALP. This is equivalent to 20 USD per participant per year (MoE, 2010b). The amount is considerably higher than the budget for ESDP III (288 million birr, 0.5% of the total budget for the education sector). All other levels of education had a decreased proportion of the total budget compared to the ESDP III. IFALE is therefore essential to the current government ambition for development of the country.

2.4.4 IFALE for Sustainable Development

According to NAES (2008):

> To enable the adult to competently participate in the country's development efforts it is vital to design an adult education program, which complies with development strategies and packages (agricultural and rural development, health, women and youth development packages) and serves as a tool for accelerated and sustained utilization of these development activities (p. 4).

This suggests that exclusion of adults from educational opportunities hampers development. According to MoE (2008, p. 5), adults should contribute to the eradication of poverty and

achievement of SD. Adult education should help develop the productive force of society, build a democratic and good governance culture and bring about change in social life (MoE, 2008, pp. 11-12).

The IFALE national curriculum framework document (MoE, 2010c) is consistent with the vision of the Master Plan for Adult Education (2010-2020) and the wider vision for society. It promotes values, such as love for hard work, respect for humanity, concern for individual and group rights, concern for common interest despite diversity, and capacities and skills for environmental protection (MoE, 2010c). These values promote learning for sustainable life as main features of SD.

According to the MoE (2010c), the life skills contents address agriculture, health, income generation, critical thinking, civics and ethics, environmental care and protection, gender and social issues. The teaching of life skills should be done holistically rather than as a separate subject, linking basic literacy teaching to life related issues (MoE, 2010c). For example, when discussing *traditional practices* as a life-related issue, learners can at the same time learn the letters in the phrase and calculate the number of letters in the words 'traditional' and 'practice'. This would motivate adults to participate in the program and simultaneously develop their knowledge and skills in order to address poverty and bring about SD.

The duration of the IFALE program is two years—equivalent to three years in formal education—and sessions should be suited to the learners' occupations (MoE, 2010c). Teaching and learning should be in small sessions, currently three sessions of two hours each per week (i.e. 6 hours per week). Learners can join primary education or technical and skills training after completion of IFALE (MoE, 2010c).

The major tasks for IFALE at the national level, according to MoE (2012), are to allocate adequate finance, create an institutional system with qualified personnel, prepare and distribute primers, and recruit, train and assign facilitators to the centers. The teaching and learning should take place in collaboration with relevant government institutions, including from agriculture and rural development, health, Farmer Training Centers (FTC) and with NGOs. Different MoE documents underline the importance attached to adult education and, particularly to IFALE, and are the foundation on which the current study is undertaken.

2.5 Key Issues in the Literacy Programs of the Three Governments

The ALE efforts of the different governments were done based on different understandings of program effectiveness. The understandings partly followed international trends (Table 2.3). The early ALE programs of the Emperor Haile-Selassie regime focused on the eradication of illiteracy or adult learners' mastery of reading and writing in Amharic, the official national language. In these programs, the traditional approach to literacy was the dominant philosophy. In Rogers' (1999) view, this approach neither motivates learners to participate nor helps them to apply what they learn in their everyday life. Besides, the programs suffered from the lack of a strong institutional set up, lack of resources, inadequate training of teachers, lack of teacher commitment, and inability to enroll the poor and women. As the wider literature shows, the majority of the adult literacy learners during the emperor's time had difficulties because their mother tongues were not the medium of instruction.

The work-oriented functional literacy approach also used Amharic as the medium of instruction for all adult learners in the country. It was implemented during 1965-1973 by EWLP consistent with the human capital theory to 'find ways of turning literacy into an effective instrument for social and economic development' (Lind, 2008, p. 49). As a UNESCO pilot project, the program focused on functional contents linked to specific projects in industry or agriculture. There was an endeavor to empower learners to contribute to economic and social development. However, the MoE faced difficulties due to lack of authority and resources to work with collaborating ministries, lack of a strong institutional system, and shortage of experts which affected the effectiveness and empowering capacity of the program.

During the Derg regime (1974-1991), the ALE perspective in both the Development through Cooperation, Knowledge and Work Campaign and NLC linked functional literacy to mass campaigns. They aimed to free people from illiteracy with the help of their mother-tongue, strengthen and upgrade the skills they acquired from literacy for use in their everyday life, enhance their socialist political consciousness, and enable many to pursue further education. In reality, the liberation and social justice agenda was excluded from ALE (Kenea, 2014) even if, internationally, the period 1974-1980 was the time when functional literacy extended beyond economic development to include political, social and cultural dimensions and was conceived as a means of liberation (Lind, 2008). Moreover, in the 1980s at the global level,

attention was given to mass campaigns to eradicate illiteracy on which Paulo Freire's liberating education and pedagogy had a strong influence.

Table 2.3: Conditions and challenges for ALE under different governments in Ethiopia compared to the world ALE trend

Rulers	**Period**	**World trend of ALE***	**Conditions of ALE programs in Ethiopia**	**Challenges of implementation in Ethiopia**
Emperor Haile-Selassie (1930-1974)	1945-1964	Reading and writing in the mother tongue	Reading and wrting in the national official language; Establishment of Berhaneh Zare New Institute in 1948; Formation of Yefidel Serawit (literally Army of Alphabets) in 1954.	Absence of mother tongue education.
	1965-1973	Work-oriented functional literacy	Public notice on fundamental education/ adult literacy in 1955; Work-oriented functional literacy introduced in 1968; Reading and wrting in the national official language.	Absence of mother tongue education; Lack of experts and data base.
Derg Military Rule (1974-1991)	1974-1980	Literacy as a means of liberation	Development through Cooperation, knowledge and Work campaign, 1974-1976; National Literacy Campaign (NLC), 1979-1991; Mass campaign to eradicate literacy; Literacy texts in the mother tongue of the learners.	Exclusion of liberation agenda; No legal provision for the longer campaign, just directives.
	1980s	Mass campaigns for the eradication of illiteracy and social justice; Governments expected to take a lead	NLC operating; Derg Regime in charge of mass campaign to eradicate literacy through mother tongue education.	Exclusion of Social Justice agenda; Impostion to learn and teach in adult literacy program; Campaign fatigue; Post-literacy and the integration of literacy with development not given due attention; Civil war associated problems especially in northern Ethiopia; Relapse into illiteracy.
EPRDF Government (1991-present)	1990s	Vagueness and NGO-ization of adult adult literacy programs despite the defined basic learning needs in Jomtien	State of neglect by government; ALE left to NGOs	Absence of ALE policy discourse; No strong efforts to deliver literacy education to the millions of rural adults.
	2001-2009	Contradictions and inconsistencies: lifelong learning, literacies, and literate societies (Dakar to 2008)	State of neglect by government; Government's focus on basic education for school children; ALE the business of NGOs; NAES formulated in 2008 focussing on functional literacy.	No strong alternative to adult literacy in the policy discourses, except NAES focus on functional adult literacy.
	2010 onwards	Literacy for all (UNESCO, 2009c); working towards 'literate families', 'literatecommunities' and 'literatesocieties' made up of independent, confident and effective lifelong learners (UNESCO, 2017)	Government engagement in IFALE; Master Plan for Adult Education in Ethiopia (2010-2020), National IFALE Curriculum Framework and other guidelines written; Regions started to publish teaching materials in the mother tonge of learners; Centers expanded and millions of adults enrolled; Empowerment of learners and support to sustained development efforts emphasized.	No adult education policy apart from the strategy.

Source: Compiled from Inquai (1998); Kenea (2014); Lind (2008); Wirtu (2005); Kebede (2005); Woldemeskel (2005); UNESCO (2005c)

*Based on Lind 2008; UNESCO 2009c; UNESCO (2017)

The ALE of the NLC focused on mastery of the basic skills of literacy and numeracy, as well as a socialist orientation in which political empowerment elements appear to be very low and limited to participation in the government prescribed socialist system whereas, for example, freedom of speech and thought were unthinkable. Both teachers and learners had to participate in the NLC. This led temporarily to freeing millions of people from illiteracy, permitting them to master the basic skills of literacy and numeracy.

The EPRDF government, while giving utmost effort to the expansion of formal education, demolished the previous ALE institutional system, neglected ALE in the ETP and left the sub-sector as an NGO business until it promulgated a new national adult education strategy in 2008. According to Lind (2008), the international trend of ALE was one of vagueness and NGOization since governments ignored the provision of adult literacy even though the EFA vision embraced the right to education for all ages. Thus, until 2008, the EPRDF government had no strategy-oriented ALE program that aimed at empowering the majority of poor and marginalized learners in the country.

Internationally, UNESCO (2009) claimed the necessity of 'literacy for all'. Utmost efforts towards achieving literate families, communities and societies in order to produce independent, confident and effective lifelong learners was advanced to the top of the agenda (UNESCO, 2017) for international development post-2015. In the case of Ethiopia, IFALE is to achieve just this. It is to improve the low literacy rate in Ethiopia in accordance with the functional literacy model. IFALE is to educate millions of mostly rural-based illiterate people, empowering the learners in terms of their knowledge, competencies and skills, and attitudes and behaviors. It is to support the overall development efforts of Ethiopia to become a middle-income country by 2025.

An analysis of the implementation process and of learner empowerment in support of SD is imperative to judge whether government plans translate into reality. This is the purpose of this dissertation. As a basis for the study, a review of the wider literature on the implementation of other literacy programs and of factors that have promoted or impeded their implementation is presented. This review also includes a discussion of the key concepts of empowerment and SD.

Chapter 3
Review of Literacy Studies and of the Concepts of Empowerment and Sustainable Development

This chapter reviews design, implementation, and impact assessment studies of adult literacy education. It also discusses literacy models, as well as empowerment and SD concepts especially within the context of adult literacy education. The purpose is to understand the conceptualization and functioning of adult literacy in various contexts. This serves as the basis to develop a contextualized analytical model for IFALE's implementation and contribution to empowerment and SD in Ethiopia.

3.1 Empirical Studies: Design, Implementation, and Impact Assessment Studies of Adult Literacy Education

The review covers three sets of empirical studies that are presented below, namely design, implementation and impact assessment studies.

3.1.1 Design of Adult Literacy Education

ALE programs need to be carefully designed and executed if they are to generate benefits. Rabinowitz (2012) argues:

> Adult literacy encompasses more than just reading and writing, and it's important to understand what the real literacy needs of your particular community are before you start planning a program. Once you've assessed the demand as well as your community's needs and assets, you can start planning a program. Consider what services you need to provide, and to whom; what entity or kind of entity will run the program; what the program's philosophical and educational assumptions are; and where funding might come from. When all of that is in place, it's time to actually establish the program in the community (Rabinowitz, 2012, p. 9).

As indicated by Rabinowitz, the design of an adult literacy program should include an assessment of the real needs of learners, the kind of service that is to be provided, the theoretical foundation of the program, and the source of funding. Program designs should consider not only the program demands of the government, but also the needs, aspirations and goals of its potential participants.

3.1.2 Implementation of Adult Literacy Education

In addition to the design, the implementation process is vital for the effectiveness of literacy programs. A review of available evaluation studies of adult literacy programs in developing countries concludes that poor program design and poor implementation are causes of inefficiency (Comings, Smith & Shrestha, 1995). Where programs are well designed and implemented, drop-out rates are between 30% and 50%, equivalent to drop-out rates in the first three years of primary school, and adult learners achieve a skill level equivalent to primary school grade 3 or higher (Comings et al., 1995). However, as Cameron and Cameron (2005, p. 2) claim, dropout rates between 25% and 30% from literacy programs are acceptable globally.

Comings et al. (1995) identified two problems regarding implementation failure. First, programs have suffered from time constraints and inadequate resources, resulting in high dropout rates and low skill acquisition. Second, the measures of skill retention have been inaccurate. These findings imply that the success of adult literacy can, amongst others, depend on the allocation of sufficient resources and time to design, try out (field-test) and implement the program.

Abadzi (2003a, p. v) reviewed adult literacy implementation for the Operations Evaluation Department (OED)—an independent unit within the World Bank. The review included countries financed by the World Bank during 1960-2000 and found failures related to poor access, completion and sustainable skills as well as shortage of resources. Government and donor interest in adult literacy activities reached the highest level during 1975-79.

As Abadzi (2003a) reports, in the 1960s and 1980s, several countries implemented state-administered, top-down literacy campaigns with brief courses that lacked follow-up and in which only a small proportion of the eligible people participated. Only half of the learners were able to finish; of those who did, about half passed the literacy tests and of those passing the tests, around half relapsed into illiteracy. In her view, what generally characterized many of the campaigns in the 1970s was an efficiency rate of 12.5% with few learners gaining stable literacy skills.

The World Bank incorporated literacy components in 45 of the 304 education projects financed between 1963 and 1985 in countries such as Yemen, Somalia, Afghanistan, Ethiopia, and Malawi (Abadzi, 2003a). However, lending for literacy was only about 1%-3% of the education lending, and World Bank-financed components for any type of non-formal

education often accounted for less than 10% of the project costs. It appears that there was almost no support for reading materials, library services, or audiovisual aids and no attempts to strengthen implementation capacity. These figures were too low to fulfill the intended objectives.

According to Abadzi (2003a), seven stand-alone adult literacy projects of the 1990s (in Indonesia, Ghana, Bangladesh, Senegal) focusing on management depended on NGOs for implementation and instructional expertise and on the World Bank for funding. Generally speaking, the projects were implemented as planned. About 10.8 million people of both sexes were trained, showing the capacity of the projects to attract many learners. The sustainability was unclear, however, since the learners' capacity to read and maintain their literacy was doubtful.

Findings from the three World Bank sector documents published during 2000-2003 identify the major outcomes of adult literacy programs (financed by governments and other donors). Firstly, student attendance and performance data were scarce. The 32 literacy programs that provided data had a median completion rate of 78%, a median attendance (five programs only) of 62%, and a pass rate for the final test of 56%. Secondly, there was no information on participants' relapse into illiteracy. A few neo-literates could read some years after the instruction, such as in Uganda, but of all the literacy program graduates sampled from other programs, for example in Ajmer-India, Bangladesh, and Kenya, only 12%-60% met the literacy criteria. Thirdly, results imply that ALE graduates who remember the technicalities of reading probably comprehend little of what they read. In short, even though drop out has decreased and completion rates have increased, test achievement rates were almost similar to those of 1976 (Abadzi, 2003a, p. v-vi).

Some studies on adult literacy in the United States of America (USA) concern classroom practices and related issues. In a large-scale study of adult basic education that employed classroom observation, Mezirow, Darkenwald and Knox (1975) had the following results:

1. Learners in the observed classes were quite diverse which impeded the formation of true groups, sharing of experience, and peer teaching. Learners arrived and left individually and largely failed to socialize even during class breaks.
2. Since there were high dropout rates, teachers were under pressure to maintain enrollment and were concerned with keeping accurate attendance records.

3. Traditional classroom conventions were relaxed, making learners arrive late and exhibit behavior not sanctioned by the teacher.
4. Mixed skill level and continuous enrollment were the norm.
5. Instructional interaction was similar to an elementary school of the 1920s, for example drill, recitation, blackboard work in groups, and routines.
6. There was substantial evidence of the present-recite/test-correct approach.
7. During the instruction, facts were emphasized and after the lessons question/answer 'recitations' were common.
8. Teachers attended to learners one by one, searching out those who had difficulties, and using peer help and classroom aides.
9. In order to reduce learner failure, teachers often broke tasks into their simplest components, rewarding successes with praise, and allowing learners to skip difficult assignments.

McCune and Alamprese (1985) conducted a study on the organization and needs of adult literacy services across the USA. The findings included general information about classroom instructional approaches and materials. Individualized instruction was the primary mode of instruction, with a significant portion of the sample using group instructional strategies. There was no consistent pattern in the programs' instructional materials, but most used commercially published materials interspersed with materials created by teachers.

Lerche (1985) identified particularly promising classroom practices. Successful instructional programs had clearly stated behavioral objectives: 'the most consistently successful programs are those that structure and systematize their instructional designs. [. . .] These programs individualize instructional plans to reflect learner strengths and to address learner deficiencies'. While acknowledging many ways to teach literacy, Lerche recommends that learners be involved in the decision-making process and be provided with opportunities to apply newly acquired skills.

According to Darkenwald (1986), there are three models in contemporary adult literacy education practice: competency-based education; tutorial approaches; and community-based approaches. Specific techniques, such as programed instruction, the language experience approach, computer-assisted instruction, and theme-based instruction are used.

Young, Fitzgerald and Morgan (1994) conducted a national evaluation of the federal adult literacy program funded by the Adult Education Act and assessed the extent to which competency-based adult education (CBAE) was being implemented. CBAE is rooted in the

realities and interests of the learners and instructional components build on the competencies and goals of the learner. Learners can play a major role in defining the competencies they want to achieve and the way in which they will do so. Collins (1992) implemented a multi-method plan for data collection that used participant observation, interviews, and document analysis. In all but one of the classes observed, discrete skills–building instruction predominated.

Beder and Medina (2001) reviewed classroom behavior and instruction in adult literacy education. The large-scale quantitative studies employing surveys or focused interviews for data collection are primarily descriptive and do not contribute substantially to the development of theory or deep understanding. Although many studies portray instruction as primarily focused on discrete basic skills development, other studies, such as Jurmo (1987), Collins (1992), and Purcell-Gates, Degener and Jacobson (1998), suggest that more participatory forms of instruction also exist.

As Beder and Medina (2001) note:

> Only two studies, Mezirow, Darkenwald and Knox (1975), and Collins (1992), are based on classroom observation and focus on classroom dynamics. Both studies agree that instruction is primarily focused on discrete basic skills and the conveyance of factual knowledge. Both also note that traditional classroom norms have been modified to accommodate adult learners, and both studies voice concern for mixed-level, continuous enrollment (p. 18).

The study shows that the major challenges related to ALE teaching and learning were using traditional techniques of teaching, teaching students at different levels in one class, and continuously welcoming new students.

Okech, Carr-Hill, Katahoire, & Kakooza (2001) did a comparative study of the evaluation of FAL and Action Aid's Regenerated Freirean Literacy through Empowering Community Techniques (REFLECT) programs in eight districts of Uganda. The results show that almost 3/4 of the sampled literacy graduates of both sexes and over 1/3 of the non-literates reported to have had some primary schooling, with a substantial minority having at least five years of primary education. The facilitators worked under conditions that were not ideal, for example most of them used open air spaces. Although most facilitators reported that they received the basic teaching materials, in some districts they had neither a blackboard nor a chalkboard. NGO supported facilitators had a better supply of the basic materials. The facilitators considered that the primers were relevant to the needs of the learners despite differences

among the primers of various languages in terms of the depth and quality of core issues, including health, water and sanitation, governance and gender relations.

According to the Ugandan study, the FAL program was run by volunteer facilitators. NGO center facilitators received some allowance. Most facilitators used the local language as their mother tongue and had high school education. The NGO center facilitators received better training compared to most (3/4) of the FAL facilitators. The facilitators reported that there was insignificant monitoring, supervision and support. The monitoring framework for FAL was top-down based on filling in complicated forms by unpaid volunteers who lacked incentives. This may have resulted in unreliable data. On average, the FAL programs were costed at about 4 USD per participant per year. By contrast, the REFLECT programs that provided incentives, and more intensive training and support was calculated at 9 USD per participant per year.

Ishaq and Ali (2012 pp. 95-98) suggest factors that are particularly important for effective implementation of literacy programs in Nigeria. These include: understanding the felt needs of the target community through situational analysis; planning both manpower and material resources; consulting the learners on the time for learning; allocating adequate funding; designing a relevant curriculum with appropriate methods and strategies of teaching; and setting appropriate educational objectives and SMART[9] learning objectives. According to Philadelphia Public Management Corporation (PHMC) (2011), appropriate training of staff, commitment of staff, respect for adults, practical program content, assessment and evaluation of learners' progress, an appropriate learning environment, and relating the learning programs with the external community are the key characteristics of exemplary adult and literacy programs.

While acknowledging the various options available to decision makers when designing and implementing an adult literacy program, Oxenham (2008) suggests a number of factors that are essential to guarantee return on investment in basic education. These include: that educational planners consult local specialists on the education level appropriate to their societies, languages and writing systems; that literacy programs are accessible as a matter of right and that people are encouraged to participate; that methods addressing the learners' interests and lives are applied in the learners' mother tongue; that well-skilled and committed facilitators are ensured; that the lives of learners are addressed in the learning materials; and

[9] SMART = Specific, Measurable, Achievable, Relevant and Time-oriented objectives.

that strategies to move from basic skills to fluency levels are designed, i.e. creating literate environments and carefully focused literacy programs that are flexible in their application and use of available communication technologies.

In all the cases, attention is particularly paid to factors directly related to the teaching and learning process rather than to the importance of an efficient institutional system. In contrast, in this dissertation both the delivery of a relevant curriculum and building an efficient institutional system are addressed in the analysis of the implementation of IFALE in Ethiopia. Following the identification of important factors for the implementation of literacy programs is a review of ALE impact assessments that address process and outcomes.

3.1.3 Adult Literacy Education Impact Assessment Studies

Beder (1999) understands outcomes as the changes that take place in learners because of their participation in adult literacy education, i.e. participation in adult literacy education can lead to measurable changes in knowledge, skills, attitudes, and behavior. Learners' participation in adult literacy education can also have an impact on the family, community, and society. According to UNESCO (2005c, pp. 138), existing empirical studies show that the successful completion of adult literacy programs offers not only cognitive outcomes similar to formal schooling but also more adult-specific outcomes, including political awareness, empowerment, critical reflection and community action that are not commonly linked to formal schooling. Credible measurement of outcomes and impacts of adult literacy education is critically important for program accountability and for program planning and improvement (Beder, 1999). However, Stromquist (2009, pp. 65-66) argues that it is difficult to conduct impact studies of ALE because of irregular attendance and (limited) time of enrollment, substantial difference in learners' prior knowledge of printed materials, and variation in content and intensity of literacy programs.

There are more qualitative than quantitative literacy impact studies (Stromquist, 2009). Many studies are based on small samples that could provide insights for the design of future ALE programs while some rely on control groups based on large samples. Some of the ALE impact studies employ both qualitative and quantitative methods for complementarity and triangulation purposes. The review here is of ALE empirical studies from different parts of the world irrespective of methodology.

Some studies have empowerment as a central point when they investigate the impact of literacy programs. Stromquist (2009, p. 66) argues that empowerment has usually been

assessed indirectly through self-reports by learners of their feelings and perceptions about their self-esteem, self-confidence and self-efficacy. Empowerment can also be studied by observing learner behaviors, for example new or improved practices regarding political participation at national and local levels, household decision making, and decisions concerning health and education of family members (Stromquist, 2009). Empowerment self-reporting studies can be based on indicators for various dimensions, e.g. cognitive, political, economic and psychological dimensions (Stromquist, 2009). Such studies can be vulnerable to cognitive illusion and social desirability responses (Abadzi, 2003a, p. 18), especially when applying structured questionnaire items with guided responses (Stromquist, 2009).

Impact studies from both developed and developing countries show that ALE plays a role in empowering the learners. This means that ALE has the capacity, amongst others, to change people from passive subjects to active citizens. McDonald & Scollay, 2009; Metcalf & Meadows, 2009; Bingham, 2009; and Mclachlan, Tett & Hall, 2009, as cited in Stromquist (2009), based on longitudinal studies of large samples found that literacy learners in the US and the UK had acquired feelings of self-esteem, self-efficacy, and self-confidence. Stromquist (2009) argues that the learners were more independent in performing several tasks on their own since they gained improved skills in communication, could employ information technology, could write formal letters and were more competent in dealing with government officials. The learners had more contact with local people, for example through involvement in community organizations. The findings derived from using either self-esteem scales or open-ended interview questions and the effects persisted several years after learners had completed the literacy program.

Besides, several studies conducted in Brazil (Stromquist, 1997), the United States (Young, Hipps, Hanberry, Hopstoch, & Golsmat, 1980, Young et al., 1994; Beder, 1999; Bingman & Ebert, 2000), and African and South Asian countries (Egbo, 2000; Lauglo, 2001; Abadzi, 2003b) indicate that adult literacy programs contribute to participants' improved self-esteem. Other examples of self-confidence gains after attending literacy training were reported by Bown (1990) in a review of forty-four studies on behavioral changes and by Canieso-Doronila (1996) in a study of the Philippines.

Kagitcibasi, Goksen and Gulgoz (2005) studied the impacts of a Functional Adult Literacy Program among women in Istanbul, Turkey. It comprised pre/post-test measurements, a comparison between program participants and non-participants, and a follow-up study after one year. The pre/post-tests used scale items on social participation, family cohesion, the

value of children, household decision-making, self-concept and self-efficacy. The study found statistically significant positive changes in all variables, except for self-efficacy and household decision-making. There was significant variation in both social participation and self-efficacy between literates and non-literates.

A distinguishing characteristic of the study is that the participants had TV news recall and comprehension tests at the beginning and at the end of the program in which they recorded significant gains. As stated by the authors, 'learning to read initiates a chain reaction of changes in the cognitive processing system' (Kagitcibasi et al., 2005, p. 483). Stromquist (2009, p. 69) calls this argument 'an uncommon assertion given today's reluctance in several academic circles to consider that literacy can facilitate more complex reasoning and analysis'. What is more noticeable is that the follow up study after a year found that all gains identified at the end of the program period, except for family cohesion, were maintained or improved over time, revealing that the program's contribution to the participants' social integration, positive self-concept, and family cohesion was huge.

Ashe and Parrott (2001) investigated the impact of women's participation in NGO based Nepalese micro-credit programs. The programs comprised a variety of literacy components and lasted four years. It led to 6,500 savings and loan groups with over 130,000 women as members. According to the study, the participants reported a higher self-confidence and decision-making role compared to women who had not been exposed to the literacy components. The women attributed these achievements more to their teamwork than to their access to literacy and credit. Like participants with psychological empowerment gains in other literacy impact studies, the Nepalese female participants were also more inclined to send their children to school as a result of the program.

In a study on the impact of literacy programs in Nepal, Burchfield (1997) compared 400 women that completed the literacy program at least one year earlier to 100 non-literate women. Burchfield used about 40 indicators to investigate empowerment. They were categorized as follows: sense of economic security; ability to earn a living; control over income; household decision making; self-confidence and self-respect; ability to act effectively in the public sphere; participation in public protest or political campaigns; political awareness and participation; participation in non-family groups and organizational meetings; actions to improve children's future; and a vision of the future. Seventy-five percent of the indicators showed substantial difference in the neo-literate women compared to the non-literate ones. The neo-literate women felt more confident to express an opinion, discuss politics, talk about

men's drinking and beating of their wives, and check their children's attendance and progress in school.

Burchfield, Hua, Baral, and Rocha (2002a) and Burchfield, Hua, Saxo, and Rocha (2002b) conducted two longitudinal, primarily quantitative studies in Nepal and Bolivia for over two years to investigate a wide range of impacts related to integrated literacy programs. There were consistent patterns of behavior related to citizenship practices. The study of Nepali women assessed the government literacy program using a skills test of 49 items based on authentic measurement (real objects, pictures, posters found in Nepali villages) and a quasi-experimental (control) research design, including 773 women who participated for different amounts of time in the literacy programs, and 188 non-participants. Based on structured item responses, the study found that compared to non-literate participants, women who participated in the literacy program for a minimum of two years had more political knowledge regarding the minimum voting age and the names of political representatives, believed they could serve as political representatives, and were registered to vote in national elections. Because of their participation, the literate women joined a community group as members, participated in community decisions, and had awareness not only of girls' sex trafficking but also of domestic violence.

A Bolivian study on a women's literacy program run by an NGO involved 716 literacy participants and 224 non-participant women. It was both similar to and different from the Nepali study. First, the measurement of literacy combined self-reported skills and several measures of writing and reading skills. Second, the literacy program participants were a single group. Third, the questionnaire items comprised questions of awareness of laws concerning violence and discrimination, equal rights of women in municipal plans and the inclusion of women's needs in the plans. As in Nepal, the knowledge, attitudes, and practices of political and community participation of the literacy participating women were higher than for the non-participating women. The benefits continued years after completing the program.

Infante's (2000) study of seven countries in Latin America, as cited in Stromquist (2009, p. 66), compared social competencies by level of functional literacy proficiency. Self-esteem, autonomy and communicative competence ('ability to persuade others') were associated with abilities in reading, writing and math. Subjects with high levels of reading competence generally led to good communicative competence among learners.

Four qualitative studies found women's empowerment in the form of self-esteem and self-confidence in different developing countries. First, in a case study research on women in Brazil, Stromquist (1997) found that the literacy education participating women reported deeper awareness of their environment, greater confidence about engaging in a variety of social activities, and greater self-esteem. Second, Egbo (2000) reported that literate women in Nigeria acquired more knowledge of their rights and became confident enough both to participate in community matters and to make autonomous decisions in the household. Third, Farrell (2004) found that neo-literates in Zambia developed a higher sense of competence considered as an expression of self-esteem by the researcher. Fourth, Archer and Cottingham (1996), in an evaluation study of REFLECT approach programs in El Salvador, Bangladesh, and Uganda, found that women in the literacy circles of Bangladesh improved their confidence and self-efficacy for action within the household but did not adequately participate in any civic organization.

Two ethnographic pieces of research on ALE also reported learners' empowerment gains. In a study based on literacy practices of a poor woman from Bangladesh called Mina, Maddox (2007) found that the woman was able to redefine her identity and modify power relations within the household by being able to have written records of household income and expenditures. Prins (2008)—who conducted an ethnographic study on literacy programs in El Salvador—found that both male and female participants in ALE programs were empowered in terms of their self-esteem, self-confidence, skills of formulating and expressing ideas, skills of participating in and influencing new spaces, and in relations with family members. However, there were no collective forms of empowerment because of the short program duration and the fragmentation of El Salvador in the aftermath of the civil war.

Vasumathi (2008) in her study on neo-literate adults of Malappuram district in Kerala, India, analyzed the personal, family, social, and cultural impacts of adult literacy programs. The study found that adult literacy programs contributed positively in a number of areas, for example learners' political awareness, knowledge of the importance of pre-natal and post-natal care, awareness of environmental pollution, awareness of renewable energy sources, attitude towards work, saving practices, hygienic practices, and participation in cultural activities. Literacy programs also made neo-literates engage in protests against under-age marriage of girls and injustice.

As UNESCO (2005c) states, several studies indicate that literacy has a positive contribution to earnings; however, studies of the impact of adult literacy programs are scarce. Some

studies have attempted to separate the impact of literacy on growth from that of education (UNESCO 2005c, p. 143; Cameron & Cameron, 2005). For example, Coulombe, Tremblay and Marchand (2004), based on data from the International Adult Literacy Survey (IALS), concluded that 55% of the differences in economic growth among OECD countries for 1960-94 was explained entirely by variations in average skill levels, suggesting that investments in increasing the average level of skills could produce large economic returns. Besides, the study revealed that literacy scores resulted in superior growth in terms of output per capita and per worker than indicators of years-of-schooling.

Some studies have explored the economic benefits of adult literacy based on a livelihoods framing of actual and potential literacy impacts (Cameron and Cameron, 2005). Oxenham, Diallo, Katahoire, Petkova-Mwangi, & Sall (2002), based on studies in several countries, stated that people who had finished literacy courses appeared to have more confidence and interest in taking initiatives for their livelihoods improvement. In Senegal, participants in a program that offered both literacy and technical training for agriculture and livestock raising were 6 per cent more productive than the comparison group (non-participant illiterate farmers), but it was difficult to determine whether the impact was caused more by the technical content or the literacy skills (Oxenham et al., 2001as cited in Cameron & Cameron, 2005). Participants in Uganda mentioned 'not being cheated' as one of the benefits of their participation in literacy education programs (Okech, Carr-Hill, Katahoire, Kakooza, & Ndidde, 1999), implying removing the advantage of the more literate party.

There were also other economic empowerments reports. Functional Adult Literacy participants from Rukungiri, Uganda, reported that their knowledge of fuel saving stoves gained from the program helped to reduce the amount of their wood fuel consumption (Katahoire, 2001 as cited in Cameron & Cameron, 2005). Adult education programs from Bangladesh, El Salvador and Uganda motivated participants to reassess and improve their use of land, water, crops as well as raise funding in order to have a tube well constructed (Archer and Cottingham, 1996). Literacy programs in Kenya and Tanzania enabled participants to spread modern agricultural techniques (Carron, Mwiria, & Righa, 1989; Carr-Hill, Kweka, Rusimbi, and Chengelele, 1991). Ashe and Parrott (2001) reported examples of group micro-credit programs that were interconnected with literacy training (for instance the Women's Empowerment Program (WEP) in Nepal). The way WEP strengthened the strong saving and credit associations in Terai, Nepal helps explain the success of the program (Ashe & Parrott, 2001).

Studies that have focused on the macro-economic benefits of and economic returns to literacy are relatively rare. Barro (1991), in a study based on cross-country data for 1960-85, and Bashir and Darrat (1994), in a study of 32 Islamic developing countries during the same period, found that both adult literacy and school enrollment rates have positive contributions to growth. A panel data for 1970-90 for 44 African countries also identified literacy as one of the variables with a positive impact on GDP per capita growth (Naudé, 2004).

As Azariadis and Drazen (1990) and Sachs and Warner (1997) argue, the impact of literacy on economic growth depends on the initial literacy level. The former found a threshold effect, i.e. achieving at least 40% literacy rate for undertaking fast economic growth based on technology transfers. The latter identified 'a statistically significant S-shaped relationship with maximum effect when literacy rates were neither very high nor very low', implying that 'small changes at high and low levels might not affect economic growth, but small changes at the intermediate levels characteristic of many developing countries do have an important effect'.

Carron et al. (1989) conducted an impact study of a national literacy program in Kenya comparing literacy graduates who had received a completion certificate with non-literate adults, using structured item responses. In contrast to non-literates, literates showed improved political knowledge as regards ability to identify the ruling party and understand elections, election participation and local association membership. In a country evaluation of a literacy program in Uganda comparing literates and non-literates, Carr-Hill (2001) found that adult literates of both sexes tended to oppose domestic violence, accepted the idea of sharing household chores, considered women as good village leaders, and accepted women's rights to keep their own income. The study also revealed that neo-literate women saved more of their income than non-literate women, but displayed no change in childcare practices.

Okech et al. (2001), in the previously mentioned comparative study of FAL and REFLECT programs in various districts of Uganda, reported some outcomes to be evident. Test results indicated that all sample members were able to read and understand simple questions pertaining to their name, today's date, and who the president is. The average score for nine simple numeracy tests was over 70% and for six more difficult comprehensive questions 60%. The average score of the sample members for relatively simple writing tests was under 40%. Literacy education graduates scored better on the tests than primary school students of grades 3 and 4. There appeared to be little difference between FAL and REFLECT graduates after controlling for prior primary schooling.

In respect of items of functional knowledge attitudes, and practices, program participants showed better overall performances than the comparison group or non-literates. The length of exposure to literacy classes made an insignificant contribution to both knowledge and attitude scores, but contributed significantly to practice scores. REFLECT program participants generally showed significantly better performance than FAL program participants. Nevertheless, when years of primary schooling was controlled, FAL program participants with no or limited schooling performed better than their counterparts in the REFLECT program. By contrast, REFLECT program participants with three or more years of primary education had better performance than their counterparts in the FAL program. Approximately 80% of the literacy program participants claimed that they did some reading. Other participants reported to have practiced writing as well as mental and written calculations occasionally.

Most FAL and REFLECT participants included in the study were happy with reading, writing, and calculating. Other benefits of attending the programs include: improvements in family health, family income, and ability to pay children's school fees; decision making at the family and community levels; self-confidence, self-esteem and the capacity to avoid being cheated and manipulated. The graduates also spent more time discussing education and school matters with their children and looking at the children's homework than the non-literates. Several respondents also reported that participation in the programs helped them start income-generating projects.

Okech et al. (2001) draw some of the following conclusions: the literacy programs helped redress the imbalance of educational opportunities between men and women since most program participants were women; the programs appeared to be in danger of missing their primary clients, i.e. people that had no schooling; the majority of the program participants had achieved a level of reading, writing, and calculating that was better than the grade 4 primary school learners; and the quality of implementation was the major explanation for the variations in the learners' attainments.

In a study of 100 participants in the Agona District of Ghana, Arko and Addison (2009) identified a link between functional literacy and development. The beneficiaries of the functional literacy classes could read, write and calculate which improved their social and economic lives. The beneficiaries were also conscious of the need to attend to their health (e.g. knowing that they needed a hospital card to attend the hospital) and jobs. This helped to increase productivity and income levels (Arko & Addison, 2009).

Ayodele and Adedokun (2012) claim that adult functional literacy and adult education in Nigeria are necessary to have an enlightened citizenry that can help develop the nation by participation in decision making, expressing their voice and directing their own affairs. Trudell (2009) argues that local language literacy programs in Sub-Saharan Africa provide women with access to knowledge in a language they understand, leading to benefits, such as better family health, higher school enrollment rates for children, and higher average family income. Zents (2005) adds that literacy in the local language provides women with benefits, such as raising their level of confidence and sense of self-worth, and being assertive in public. They have an increased feeling of pride and personal accomplishment and are therefore more openly critical since they can learn and think for themselves.

3.1.4 Conclusion

The review of the ALE empirical studies shows that ill-designed and poorly implemented programs are important reasons for ALE ineffectiveness. The available research on efficiency and impact provides sufficient evidence to support the claim that adult literacy is not only a critical but also a viable contributor to empowerment of learners and a country's development. Studies on ALE impact clearly show that literacy programs can empower learners of both sexes as expressed in self-esteem and self-confidence, i.e. psychological empowerment. This empowerment enables women and other marginalized groups to break the chain of exclusion that hampers their opportunity for participatory practice. Moreover, knowledge of politics, participation in politics and community organizations, social integration, family cohesion, livelihoods improvement, and cognitive development are elements of empowerment that learners acquire from ALE.

All ALE programs have contributed to different dimensions of empowerment, irrespective of the approach, the cultural and national context, and the duration of delivery. According to Stromquist (2009, pp. 69-70), the Freirean argument that only literacy programs stimulating consciousness raising (particularly those utilizing problem-solving methods) can promote psychological empowerment can be challenged. ‘It might be that the exposure of marginalized adults to safe and relaxed settings—such as those afforded by literacy classes—that offer moments of conviviality and information sharing end up producing a greater sense of individual worth’ (Stromquist, 2009, p. 70).

Although studies have shown that ALE has an empowering potential, it seems that none has attempted to link ALE to SD via learner empowerment, or to study the impact of ALE on

empowerment of learners in Ethiopia specifically. This dissertation aims to fill this gap by seeking to understand how ALE (IFALE) contributes to SD in Ethiopia through the empowerment of its participants in the political, economic, socio-cultural and psychological dimensions. As will appear in Chapter 4, the study takes into consideration indicators and factors for the different empowerment dimensions that have been used in previous research. It also rests on assumptions developed in theoretical models for understanding adult literacy.

3.2 Theoretical Studies: Literacy Models

The concept of literacy broadly refers to 'a set of cognitive skills necessary to make meaning of print communication' (Stromquist, 2009, p. 64). These skills are improved in specific social contexts and practices (Cope & Kalantzis, 2000). They are applicable irrespective of time and space (Organisation for Economic Co-operation and Development, OECD, & Statistics Canada, 1995) both for efficient functioning in one's community environment and for individual and social transformation. This suggests that literacy can result in empowerment at individual and group levels and serves as a means to an end.

There are three important literacy models, namely the functional, the critical, and the social-practices model.

3.2.1 The Functional Model

Functional literacy received more prominence since the International Adult Literacy Survey (IALS) was conducted in 22 countries from 1994 to 1998 (OECD, 2000). IALS assumes a link between individual skills and the overall performance of a nation in terms of modernization and economic productivity. This is especially true in OECD countries where literacy skills are key to unlocking the benefits of globalization (Tett & St. Clair, 2010). Many developing countries and international agencies also follow this model which they believe responds to their demands for development (Fransman, 2008; Tett & St. Clair, 2010).

The functional model (also known by many as the skills approach to literacy) has particular positions concerning the purpose of adult literacy. It considers reading and writing primarily as a set of autonomous skills or techniques applied to different contexts of use (Papen, 2005). Tett & St. Clair (2010) claim that in this model, literacy is a set of neutral, technical skills that have little to do with culture and society. Literacy is a skill that remains the same irrespective of the means of acquisition, type of use or contextual relevance to the users (Street, 1984). It serves to accomplish a broad range of activities related to participation of the individual in

society (Tett & St. Clair, 2010). The model relates to psychological and cognitive understanding of literacy and sees literacy from the perspective of individual ability that has relevance to participation at societal level and positively influences development.

According to this view, enabling an individual's access to information, developing his/her thinking, and improving his/her chances of employment and income are expected benefits of literacy. Skills can be monitored and assessed in a standardized quantitative way. Learning outcomes serve as a proxy just as achievement does in formal schooling. Therefore, the model is attractive to donors and policy makers (Fransman, 2008).

In this model, literacy is transferred through the autonomy of the text and the meanings it carries. Universal features of adult literacy as well as other semiotic sound systems are explored (Hamilton, Hiller & Tett, 2006; Tett & St. Clair, 2010). The model emphasizes individual deficits. It also considers literacy as a set of discrete skills that are universal and transferable to all types of circumstances demanding the use of the written language.

There are several critiques of the functional literacy model. First, the functional literacy definition (which labels people as either literate or illiterate depending on their basic reading, writing and arithmetic capacity) is widely acknowledged as unhelpful for policy and practice. It paints an artificial picture of the literacy challenges and results in unsustainable acquisition of competencies that do not respond to the demands of daily life (Fransman, 2008). Second, the model leads to a narrow, reductionist meaning of reading, writing and computing. It disregards learning features that are not manageable at the individual and cognitive level. Tett and St. Clair (2010) add that 'all too often the model can support a deficit view of literacy, where those with limited literacy engagements are seen to be lacking in some way, whether in ability or in education'. Fransman (2008) adds that the model:

> gives credence to the understanding of adult literacy as 'second chance schooling' rather than as initiatives tailored to the demands of adults in particular contexts. It also suggests the goal of creating literate individuals rather than literate societies, while failing to recognize that literacy skills are neither relevant nor sustainable without a supportive environment in which to use and develop them (p. 1).

Third, many scholars including Barton (2007) are critical of the model and the assumption that there are clear and discrete stages in learning with individual skills learned in a linear order. In Barton's view, underlying this is the implicit idea that there is only one real way to learn to read, write or use numbers. Fourth, it ignores concerns that are essential to understand the reactions of the learner (Tett & St. Clair, 2010). Despite these challenges, the model has

received great attention since it focuses both on development and on global integration through learners' empowerment.

3.2.2 The Critical Model

In contrast, based on the critique of neo-liberal models of education and elements of the functional model, the critical model is inherently political and influenced by socialist thinking. Critical literacy, which is highly associated with the Brazilian educator Paulo Freire, means the potential to read the word and the world (Freire and Macedo, 1987). It stresses pedagogy that allows learners to understand their world in terms of justice and injustice, power and oppression and the ways of transforming it. The objective is 'conscientization' or becoming critically aware of social, political, economic, and historical forces that shape oppression and ultimately can lead to transformative action (Fransman, 2008). According to Freire (1995), speaking, reading and writing are interrelated elements of an active learning process and of social transformation. In Shor's (1993) view, the primary purpose of critical literacy is to be critical of the dominant culture and the existing power relationships between social groups rather than help learners move up the social ladder (as in the functional model).

In this approach, literacy acquisition means to explore the social and political dimensions of the learner experiences (Fransman, 2008). People need to master different skills—to make sense of literal and hidden text meanings and to discuss the position a text supports (Tett & St. Clair, 2010). The focus is on interpreting, reflecting on, interrogating, theorizing, investigating, exploring, probing, questioning, as well as acting on and dialogically transforming the social world. This model, with its focus on power and oppression, presents itself against the competencies position of the functional approach. It emphasizes the political and institutional dimensions rather than the personal and cultural aspects (Fransman, 2008).

3.2.3 The Social-Practices Model

The social-practices model varies from the functional and critical models particularly in emphasizing design over and above competence and critique (Fransman, 2008). There are various versions of the social-practices theory of adult literacy, numeracy, and language and, therefore, various approaches as well. The approach typified by the New Literacy Studies (Street, 1984; Barton et al., 2000) represents mostly ideas and methodologies from sociology, socio-linguistics, and anthropology. In contrast, Vygotsky and others focus more on active problem solving theory.

According to Fransman (2008), the social-practices model has at its core the notions of literacy events, practices and domains. Literacy events refer to ‘the particular activities in which literacy has a role’ (Barton, 1994). Literacy events draw on the general literacy practices, but are directly observable, for example reading a newspaper, writing a grocery list, writing a letter to a friend, reading a company memo or a pay slip, reading a textbook and writing a term paper (in school) (Merrifield, 1998).

Street (1984) uses the phrase ‘literacy practices’ to focus on the knowledge and power relations surrounding a literacy event. Literacy practices are 'general cultural ways of utilizing literacy’ (Barton, 2007) that people draw upon in the varied contexts in which they live their lives—school, work, home, social groups, neighborhoods; they consist of behavior, meanings, values, and social relationships (Merrifield, 1998).

The term domain is defined by Merrifield (1998) as ‘the extensive life contexts we engage in, including the family, the school, the church, and the various social groups that are molded in turn by the broader culture, by class, gender, ethnicity and regional variation’. When events, practices and domains are combined, they explain the notion of ‘multiple-literacies’ that may not only refer to schooling based literacy (Fransman, 2008). Tett and St. Clair (2010) claim that in addition to reading, speaking and writing, the use of new technologies is indispensable to the definition of literacy.

According to Hamilton et al. (2006), the social-practices model has moved away from the individually focused cognitive skills perspective to include the social practices associated with numbers, reading, and writing. The approach, while recognizing difference and diversity, and challenging the way differences are valued in society, gives emphasis to the various ways people engage with literacy instead of viewing literacy as something learners lack (Hamilton et al., 2006; Tett & St. Clair, 2010).

This is a shift from seeing literacy as a gift given to people to an ideological view that places literacy in the wider context of institutional purposes and power relationships (Street, 1995). While emphasizing the cultural practices within which written and spoken words are embedded, adult literacy is in this approach part of the range of social practices that are observable in events or moments and patterned by social institutions and power relationships (Tett & St. Clair, 2010).

This view sees literacy as historically and socially positioned and a part of the broader cultural and media engagement, not just as an individual activity. The functional approach

emphasizes the self-sufficiency of the text and the sense it conveys. In contrast, social-practices literacy, according to Hamilton et al. (2006) and Tett and St. Clair (2010), underlines the connections between the classroom and the community in which learners live, between learning and institutional power, and between print literacy and other media. The social-practices approach focuses on learning that takes place in the daily life of the learners as opposed to only the classroom, with meanings, values, and purposes located within a broader literacy framework than the texts themselves.

The social-practices model rests on two important principles: a two-way dialogue and movement between formal learning and the everyday world, and active learning (Tett & St. Clair, 2010). With regard to the first principle, Tett and St. Clair (2010) argue that situated cultures and practices cannot simply be accepted and imported into the classroom setting. As to the second principle, active learning is at the heart of the learning process in adult literacy. In the view of Hamilton et al. (2006), active learning has significant implications for relationships within the learning process and for reflective and questioning activity on the part of both learners and teachers. It is essential that teachers and learners participate in decision making and governance of the organization of learning, involvement in management committees, consultative bodies, and research and development activities based on which citizenship is modeled (Tett & St. Clair, 2010).

Brandt and Clinton (2002), and Collins and Blot (2003), however, argue that the approach does not adequately take into consideration the way external forces, such as economic globalization, missionaries and colonial powers, have been superimposed upon the local experiences of particular societies. According to Maddox (2001), proponents of the social-practices approach do not consider the potential of literacy to make people shift from local positions towards better economic, social and political involvement. In Fransman's (2008) view, the approach ignores the fact that sometimes people want basic competences (either for symbolic or instrumental purposes) and sometimes they want change or even to move away from their local context instead of merely continuing to function within it.

3.2.4 Conclusion

As indicated in Table 3.1, each literacy approach has a unique purpose, focus and method. The functional model focuses on gaining measurable competencies for national development. The critical model focuses on transformation of dominant power relations. The social practices model aims at contextually relevant literacy events, practices and domains. Each

model applies different research methods. The functional model is highly related to quantitative studies, the social practices model highly relies on ethnographic studies, and the critical model often adheres to participatory rural appraisal (PRA)[10].

Table 3.1: Purpose, focus and research methods in selected literacy models

Model	**Purpose**	**Focus**	**Methods**
Autonomous (Functional)	Competition/ Development	Competences	Quantitative or quantifiable
Transformative (Critical)	Social transformation	Critique	Participatory rural appraisal
Social-practices (ideological)	Contextual relevance	Design (events, practices, domains)	Ethnographic research

Source: Adapted from Fransman, 2008

In reality, the literacy provider or researcher may combine two or more models and, therefore, more than one method. UNESCO (2004) underlines that a pragmatic understanding of literacy should recognize important elements from different approaches to acknowledge the 'plurality of literacy', rather than taking a consensus position based on one or the other approach. With the shift of the conceptualization of literacy from a discrete set of technical skills, to human resource skills for economic growth, and to capabilities for socio-cultural and political change, international organizations admitted comprehensive understandings of literacy that 'encompass *conscientization*, literacy practices, lifelong learning, orality, and information and communication technology literacy' (UNESCO; 2005, p. 159).

In this dissertation, conceptualizations from each literacy model will be combined in consideration of their relevance to the study. The functional model claims that individual abilities have relevance to the improvement of personal income, thereby enhancing participation at family and societal levels and making a positive contribution to overall development. In the critical model, critical thinking and problem-solving skills are essential for both individual and societal transformation. The social practices model stresses the use of active learning methods in the context of a curriculum. The assumption in the dissertation is that these aspects are particularly important if literacy is to empower learners by enhancing their confidence, knowledge and skills, changing their behavior and developing their capabilities to participate actively in the political, economic, and socio-cultural domains. All of this is essential to support SD. Understandings of empowerment and sustainable development are, however, contentious. The concepts are discussed in the following section in order to arrive at clarity of their use in this dissertation.

[10] Chambers (1992) defines PRA as a technique intended to enable local communities to conduct their own analysis and to plan and take action. The objective of PRA is to help strengthen and/or assess the capacity of villagers to plan, make decisions, and take actions to improve their own situation (Cavestro, 2003).

3.3 Empowerment and Sustainable Development in the Context of Adult Literacy

3.3.1 The Concept of Empowerment

As a theory of social change, empowerment has attracted many scholars in both theoretical and practical terms (Stromquist, 2015). In Zimmerman's (1984) view, a single definition of empowerment may make it prescription-like. While the definition depends on the context, it should relate to a multi-dimensional social process that helps people gain control over their own lives. It is a process that fosters power in people—that is, the capacity to implement— by acting on issues that they define as important for their own lives for their communities, and for their society (Page & Czuba, 1999). According to Stromquist (2009), empowerment has been defined in different ways which all have 'a common occurrence with meaning-rich notions that include democracy and globalization'.

As Page and Czuba (1999) state, empowerment is multi-dimensional, social and a process. It is multi-dimensional as it has sociological, psychological, economic, and other dimensions and occurs at various levels, for example individual, group, and community levels. It is social since it occurs in relationship to others and a process that is similar to a path or a journey—it develops as one works through it. Batliwala (1994, p. 130) defines empowerment as 'a spiral process, changing consciousness, identifying areas to target for change, planning strategies, acting for change, and analyzing actions and outcomes'.

Easton, as quoted in UNESCO (2005a), claims that literacy—and informal or adult education in general—can be linked to empowerment at overlapping and intertwining micro and macro levels. At the micro level, literacy and NFE programs can be empowering when they turn learners into authors of their own learning, developers of their own knowledge, and partners in a dialogue about limiting situations and barriers imposed on them which are dehumanizing (Freire, 1970). This is psycho-cultural empowerment. At the macro level, literacy and NFE programs can contribute directly to large-scale processes of socio-economic empowerment—in short, to the mastery that people, organizations and communities acquire over their own affairs and the control that they are able to exercise on their environment (Belloncle, 1993 as cited in UNESCO, 2005a; UNESCO 2005c).

In Sen's (1985) assertion, capabilities and functionings are essential for individual agency and self-determination to achieve well-being. Capabilities aggregate resources and human capital

to create the conditions under which individuals make choices. Functionings refer to the ways of being and doing of individuals. Building on Sen's capabilities, Nussbaum (2000) listed 10 essential capabilities[11] that provide a threshold for each citizen in order to have a decent life. Functional adult literacy can be a means to achieve two of the central capabilities that are essential elements of empowerment: senses, imagination and thought; and practical reasoning (Kagitcibasi et al., 2005).

It is claimed in this dissertation that literacy should also be a means to achieve three other capabilities that are essential for Nussbaum (2000): bodily health (having good health, including productive health); affiliation to others (have concern for and live with others in the environment); and control over one's environment (being able to participate in politics and being able to own property). Owning property may be associated with Sen's (1999) capabilities approach that addresses increased income and wealth. Stromquist (2015, p. 309), in her theory of empowerment, argues that education—that is closely linked to economic, political, cognitive and psychological conditions—remains a key instrument for achieving learners' empowerment. According to her, empowerment is inseparable from individual and collective action.

In this dissertation, ALE for empowerment is also understood within the LLL framework based on the four pillars of education identified by Delors (1996) to which Ouane (2008) added a fifth one, as discussed earlier: 1) learning to know (mastering instruments of learning); 2) learning to do (training people to work, invent and adapt for the present and future); 3) learning to live together and with others; 4) learning to be (supporting the complete development of learners' mind, intelligence, sensitivity, etc.); and 5) learning to change and to take risk (persevering for personal and national development).

ALE is believed to empower learners by improving their livelihoods. Cameron and Cameron (2005) state that the livelihoods framework generally connects economics and broader development studies. It is wide enough to embrace some of the problems that are likely to be disregarded in more conventional cost-benefit analysis. Development agencies, for example the Department for International Development (DFID) (2002), consider the framework as a vital means of linking literacy to the lives and aspirations of the poor.

[11] Nussbaum's (2000) list of capabilities include: life (being able to live); bodily health (being able to have good health, including productive health); bodily integrity (being able to go from place to place freely); senses, imagination and thought (being able to imagine, think, reason and use thought connection); emotions (being able to love, grieve, and angry); practical reasoning (being able to form a conception of the good and critically reflect on it); affiliation to other species (being able to have concern for and live with others in the environment); play; and control over one's environment (being able to participate in politics and being able to own property).

As stated by Cameron and Cameron (2005, p. 4):

> In the livelihoods framework, all households are seen as utilising changing patterns of natural, produced, human, financial, and social wealth to create livelihoods:
> 1. people can develop their capabilities into skills whose expression over time as *human* wealth is both means and an end to long term development;
> 2. the relatively modified physical environment is a reservoir of *natural* wealth important to human well-being in itself and to self development;
> 3. human activity in the natural environment can generate *produced* wealth, such as equipment and cooking utensils, that has a physical life and productive potential beyond immediate human consumption;
> 4. some wealth is held in *financial* forms as money or near money, such as jewellery, due to properties of liquidity and high fungibility with other forms of wealth;
> 5. societies have collective histories of building trust, confidence and mutual security into relationships that constitute a *social* wealth.

An empowering literacy education can thus be a means to the human, natural, produced, financial, and social wealth of participants (Table 3.2).

Table 3.2: A livelihoods framework for monitoring the impact of literacy interventions

	Social	Financial	Produced	Natural	Human
Human	More effective and transparent principal/agent relationships	Insurance and Income smoothing, higher remittances from migration	Safe and efficient Use	Ownership/control of natural resources plus better health	Income raising vocational skills and more cost-effective schooling of next generation
Natural	Effective natural resource user groups	Mortgage indebtedness management	Environmental Sustainability	Improved fertility and lower degradation/pollution	
Produced	Group sharing/ leasing/hiring arrangements	Investment Financing	Technological innovation with accurate specifications		
Financial	Micro-credit group stability	Cash flow Management			
Social	More effective co-operation for advocacy and fairer competition				

Source: Cameron and Cameron, 2005, p. 5

Literacy interventions can be related to 'this framework through a matrix that considers each asset in itself and also allows consideration of paired relationships' (Cameron & Cameron, 2005, p. 4). Each of the linkages can be examined in terms of whether it works to improve livelihoods through either market forces or political advocacy (Cameron & Cameron, 2005). In this dissertation, it is claimed that ALE has the capacity to enable participants to develop some of Nussbaum's (2000) central capabilities and the paired links of natural, produced, human, financial, and social wealth patterns to create livelihoods, as argued by Cameron and Cameron (2005). Together, they can lead to political, economic, socio-cultural and psychological empowerment of learners and support the wider context essential to SD.

Olaleye and Adeyemo (2012) discuss the empowering capacity of adult literacy education with a focus on the four important areas of functional literacy (Figure 3.1). First, functional literacy for learner empowerment requires basic skills, including basic literacy skills, i.e. literacy, numeracy, graphics and measuring skills. Second, the life skills dimension of empowerment includes self-awareness development, analytical skills, decision-making skills, organizational skills and technical skills. Third, empowerment acquired from functional literacy includes the socio-economic aspects that comprise acquisition and improvement of vocational skills, sustainable income generating skills, and learning to learn skills. Fourth, an empowering functional literacy includes LLL skills for societal support, continuous learning, life skills and socio-economic skills.

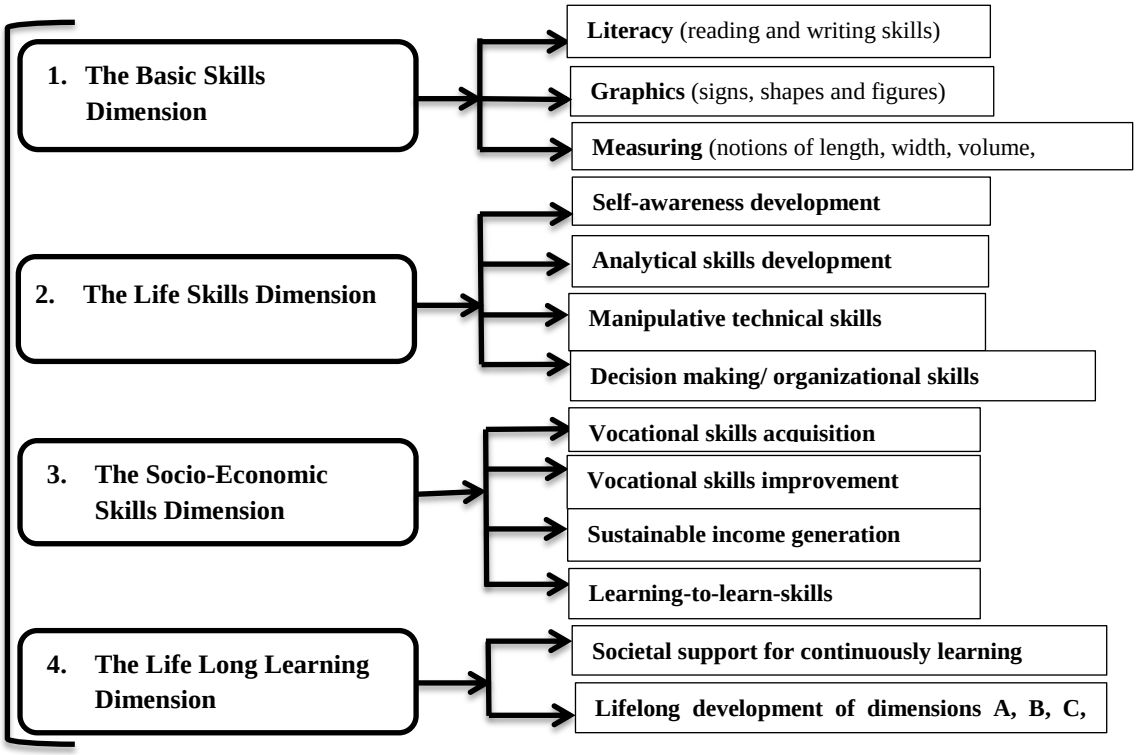

Figure 3.1: Dimensions of functional literacy and their outcomes
Source: Olaleye and Adeyemo, 2012, p. 14

Unlike Olalye and Adeyemo (2012), Stromquist (2009) defines empowerment clearly regardless of the literacy model:

> In the context of adult literacy, in which non-literate adults reflect ongoing and cumulative processes of regional, ethnic, social class, or gendered marginalization, empowerment must mean the set of feelings, knowledge, and skills that produce the ability to participate in one's social environment and affect the political system (Stromquist, 2009, p. 64).

According to Stromquist (1995, 2009, p. 64), this ability embraces four dimensions: the cognitive; the economic; the political; and the psychological. Cognitive empowerment refers

to ‘the knowledge of one’s social reality and the mechanisms that make it function the way it does’ (Stromquist, 2009, p. 64). Literacy programs can lead to cognitive empowerment depending on the contents of the programs and on the ability of the neo-literates to sustain their capacity by moving into some form of literacy habit (Stromquist, 2009, p. 70). Post-literacy initiatives can be a necessary condition for cognitive empowerment.

Cognitive empowerment

As argued by Stromquist (2009, p. 70), women in literacy programs develop greater understanding of gender discrimination and inequality in society. Literacy programs should also support adult male learners’ understanding of this social phenomenon to change unfair practices. Some may be encouraged to be activists to fight gender discrimination and inequality. Furthermore, cognitive empowerment gained from ALE must enable learners of both sexes to engage in, for example, group or community development and environmental protection efforts, and should lead to attitudinal change of learners. Street (1988), however, contends that literacy may not result in stronger cognitive development than from oral discourses. In general, the contribution of literacy to wider areas of cognitive development is not well explored. The exception is the study by Kagitcibasi et al. (2005) that examines the role of ALE for media comprehension improvement. Their pre/post-test showed that literacy participants had significant gains on the TV recall and comprehension test.

Economic empowerment

Economic empowerment reflects ‘access to independent means of support, helping make individuals more autonomous in their decisions’ (Stromquist, 2009, p. 65). According to Lauglo (2001, p. 20), short term income gains from literacy are expected if adult basic education embraces income generating activities and is linked to credit access. This is also argued by Stromquist who states that the ‘economic dimension of empowerment is less likely to emerge from literacy programs because economic improvement is highly predicated on access to credit and access to income generation—policies for which governmental support is essential’ (2009, p. 70).

As Cameron and Cameron (2005, pp. 3-8) suggest, different measures of livelihoods improvement deriving from literacy education, for example knowledge of the measures of decreasing environmental degradation/pollution, use of new technologies for increasing agricultural production, improved saving practices, personal hygiene and maternal and child

care, practice of measures of HIV/AIDS, and confidence gains that lead to taking initiatives to develop participants' livelihood appear to be vital elements of economic empowerment.

Although there is data linking literacy and education to economic growth, the mechanisms are not well explained (UNESCO, 2005c). Windham (1999) reports major challenges in using conventional economic analysis to measure the benefits of literacy due to the difficulties of linking literacy gains and economic development. These, amongst others, include: the possible problems in determining the standards for calling an individual literate; and the risk that a considerable share of women's benefits from literacy may not to be calculated since it contributes either to household tasks or indirectly to other family members' economic activity. What is a more complicating factor, according to Cameron and Cameron (2005, p. 4), is that literacy training in practice is often interconnected with other development programs.

According to Lauglo (2001, p. 21), in the economics of education, it is challenging to isolate economic outcomes of literacy since these can also derive from other sources. The economic benefits of literacy education have generally not been supported by strong conclusions in economic analysis (Cameron & Cameron, 2005, p. 1). A careful research design is thus vital not only to identify whether the outcomes originate from literacy or from other sources, but also to justify the benefits based on appropriate economic analysis.

Political empowerment

The political dimension represents 'the skills of participating in and modifying institutions and policies of one's community or nation' (Stromquist, 2009, p. 65). UNESCO (2005c, p. 139) argues that the empowering potential of literacy can lead to improved political participation and quality of public policies as well as to the expansion of democracy. Political empowerment manifests itself in voting during elections or joining a union, discussing politics with friends or engaging in community self-help initiatives and community level decision-making. However, according to Hannum and Buchmann (2003), the nature of the link between education and democracy is unclear and hard to measure.

Neo-literates might participate in voluntary activities that aim to influence political decisions at all levels of the political system. These could be conformist participatory activities (for example, party membership or electoral campaigning) or non-conformist activities (such as strikes and demonstrations). However, the political effects of ALE do not, by and large, include 'collective action such as organizing and mobilizing around specific

objectives, a finding that is hardly surprising given the apolitical content of most literacy programs, their short duration, and the unsupportive economic climate that has placed many poor in a survival mode' (Stromquist, 2009, p. 70). When literacy programs embrace basic political issues in the teaching, their adult learners will better be ready to take further political action.

Psychological empowerment

The psychological dimension of empowerment, which is a major ingredient of social capital, encompasses 'feelings that individuals are competent, worthy of better conditions and capable of taking action on one's own behalf' (Stromquist, 2009, p. 65, 1995). These are mostly self-esteem and self-confidence. Psychological empowerment is associated with a high level of confidence among neo-literates that results in manifestations of social engagement and political behavior. Self-esteem or assessment of one's own worth precedes social and political action.

Stromquist (2009) also argues that the psychological dimension at the personal level often functions as a basic requirement for the other three dimensions although it is difficult to prove a linear sequence amongst them. For Olaleye and Adeyemo (2012, p. 212), an empowered individual has self-confidence and self-worth, critically analyzes his/her social and political environment, and is able to exercise control over decisions that affect his/her life. Stromquist (2009, p. 70) claims that psychological empowerment ought to produce new political actors with political will demanded for effective literacy design and implementation and sustainable literacy programs. Therefore, self-concept and self-efficacy should be vital elements of psychological empowerment that have a bearing on political, economic, social, and cultural gains.

Socio-cultural empowerment

Socio-cultural empowerment refers to an individual's ability to enhance social capital in terms of, for example, social networks and forms of cooperation (Vasumathi, 2008, pp. 121-122) and to transform traditional ways of life, such as beliefs, practices and life styles, into modern ones. Adult literacy education can enhance a range of capabilities, including maintaining good health and living longer, learning throughout life, controlling reproductive behavior, raising healthy children and educating them, and addressing gender equality (UNESCO, 2005c, pp. 141-142).

Literacy education can also provide access to new values, for example written culture, or promotes 'transformation of other values, attitudes and behaviors through critical reflection' and helps to 'challenge attitudes and behavioral patterns' (UNESCO, 2005c, p. 140). Literacy programs may have promotion of values, including equity, inclusion, respect for cultural diversity, peace and active democracy, as their major objective (UNESCO, 2005c). For Farah (2005), the contribution of a literacy program to individual or group cultural change may be slow, not easily accessible and difficult to identify as an effect of a program. In spite of this, adult literacy education can be instrumental to socio-cultural empowerment gains of participants.

The concept of empowerment as applied in this dissertation encompasses an analysis of the potential importance of IFALE to only four of the dimensions discussed above, i.e. the psychological, economic, political, and socio-cultural ones. The analysis takes into consideration the importance of other sources, such as agricultural and health extension workers as well as the local media, in the explanation of the possible impact of IFALE on the learners according to each of the dimensions. The outcomes of IFALE are understood at the personal, family and community levels and are assumed to contribute to development at the national level. In that sense, empowerment is understood as a precondition to SD.

3.3.2 **The Concept of Sustainable Development**

The concept of SD evolved out of the need for a world that is safe for life. In the 21st century, the dominant forms of political economy (capitalism and neo-liberalism) are unable to conserve ecological resources and services, guarantee economic stability, reduce social inequality, maintain cultural diversity, and protect people's physical and mental health (Huckle, 2008, p. 342). Ecological, economic, social, cultural and personal sustainability depends on a more sustainable political economy that includes a new method of global governance led by new forms of citizenship (Huckle, 2008).

SD is a continuously evolving concept (Walters et al., 2012). According to the United Nations' Brundtland World Commission on Environment and Development (1987),

> SD is one that meets the needs of the present without compromising the ability of future generations to meet their needs. It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs (p. 41).

SD gives special attention to the most disadvantaged and poor people of the developing world who are more exposed to an unsustainable life. Sustainability is a way of thinking about a future that balance environmental, societal, and economic considerations in the pursuit of development and an improved quality of life (UNESCO, 2006a, p. 10). Environment, society, and the economy are components of SD (UNESCO, 2006a, p. 10). Culture, referring to ethical values and respect for human rights and diverse cultures, is sometimes suggested as a fourth component (UNEP, 2004).

Ndoye and Walther (2011) suggest that SD for Africa must comprise four interrelated aspects:

> i) protection of the environment and preservation of natural resources, and particularly the risks of drought and desertification threatening the continent due to global warming, ii) the promotion of a model of economic growth that is both accelerated and sustainable, because it is based on the rational and efficient use of resources, iii) the construction of inclusive societies founded upon the need to work hard to eradicate poverty and all sources of discrimination and marginalization, and iv) the strengthening of mutual cultural and spiritual knowledge and understanding in order to eliminate conflicts and civil wars and promote solidarity among peoples, peace and continental integration (p. 54).

In their view, in order to realize SD, African countries must engage in these issues through their sector development plans, including education and training—be it formal (pre-school, primary, secondary, technical and vocational, and tertiary education) or non-formal education (adult literacy education, alternative basic education programs, farmer training institutions).

Education for Sustainable Development

Research has shown that education is a key to a nation's ability to develop and achieve sustainability targets (UNESCO, 2006a). Education and training have the capacity to enhance productivity, the status of women, and environmental protection as well as reduce population growth rates (Walters et al., 2012). Walters et al. (2012, p. 23) claim that when education levels are low, economies are often limited to resource extraction and agriculture. In many developing countries, the level of education is low which severely hinders development options and plans for a sustainable future. Education and training are central to improving the quality of life and the educational attainment of the next generation, thereby raising its chances for economic and social well-being (UNESCO, 2006a).

SD implies that learning must respond to both present and future challenges (Hoppers & Yekhlef, 2012). Education must produce well-educated people who contribute to economic, social, cultural and political changes needed for SD (Ndoye & Walther, 2011). For Hoppers and Yekhlef (2012), 'this implies that education needs to ensure that people acquire a range of

skills, competencies, values and attitudes enabling them to act in their environment so as to enhance its quality'. Education, in general, and ALE, in particular, can enable learners to gain vital learning outcomes or skills and encourage them to apply the skills in their day-to-day activities.

Education should fully embrace initiatives linked to the UN's Decade of Education for Sustainable Development (DESD) 2005-2014 (Huckle, 2008, p. 342). The goal of DESD was 'to integrate the principles, values and practices of sustainable development into all aspects of education and learning' (UNESCO, 2005b, p. 6) in order to change the behavior required to produce a 'more sustainable future in terms of environmental integrity, economic viability, and a just society for the current and future generations' (UNESCO, 2005b, p. 6). DESD envisages that each person in the world takes advantage of education and acquires the values, behavior and lifestyle needed both for a sustainable future and for constructive societal change (UNESCO, 2005b, p. 6). DESD strives to make adult learners benefit from their learning, gain the basic skills, address the difficulties they experience, and achieve sustainable societal transformation for a better future life. ESD has both philosophical and ethical foundations.

While discussing the philosophical foundation of ESD, Huckle (2008) argues:

> Central to the perspectives that ESD should develop is what Hartmann (1998) terms a social-ecological theory of reality and the values that stem from it. Rather than regarding nature and society as separate realms (modern dualism) we should acknowledge that reality is always the product of both ecological (bio-physical) and social relations and processes. The phenomena of global warming illustrates how the relations between objects in the bio-physical and social worlds enable ecological and social processes, how these processes affect one another constantly, and how our understanding of such phenomena can never be entirely neutral or objective because it is always partly a product of those social or power relations it needs to explain. The politics of sustainability is about the relations that humans are in with other human and non-human agents, how we understand these relations, and what we can do to ensure that they are more sustainable (p. 342).

ESD, which is at the heart of socio-ecological theory, should link ecology with social relations and processes in order to lead civilizations on to a more sustainable path. Global warming is concerned with the relation of living organisms to one another and to other physical surroundings, explaining a critical example of unsustainable life in this planet. The socio-ecological theory or reality, founded on dialectical materialism (Harvey, 1996) or the life sciences and systems theory (Capra, 2003), considers that humans are members of biological species depending on ecological resources and services to supply their needs;

however, they are capable of transforming their own nature and the nature surrounding them because of language and technology (Huckle 2008, p. 343).

As Huckle (2008, p. 343) argues, in order to have a sustainable life, there should be equilibrium between ecology and society. People must balance an ecocentric perspective[12] with an anthropocentric[13] or technocentric perspective[14]. Huckle also argues that people have a moral obligation to act responsibly to keep the planet habitable for the human race and other living communities and care for the natural environment and its habitants despite the fact that we are more powerful:

> In seeking sustainability, we should be guided by a weak anthropocentrism. This maintains that while humans are the only source of value, they are not the only bearers of value. In addition to valuing or caring for present and future generations of people, we should value and care for the rest of nature by recognizing its ecological, scientific, aesthetic and spiritual value alongside its economic value, and acknowledging its right to exist. In other words, we should balance our rights to self-determination and development, with responsibilities towards the rest of the human and biotic community (p. 343).

Huckle emphasizes that the capacity to think critically obliges people to act responsibly which is a rational view of maintaining life on our planet. The Earth Charter (UNESCO, 2000b) reflects the ethics of weak anthropocentrism by setting out the fundamental principles of SD. The charter recognizes respect and care for the community of life, ecological integrity, social and economic justice, and democracy, non-violence and peace as vital concerns. Principle 13 calls upon the world community to strengthen democratic institutions at all levels, provide transparency and accountability in governance, and have inclusive participation in decision-making and access to justice. Principle 14 advocates for the integration of ESD as part of formal and life-long learning, implying that ALE is important as well.

UNESCO, which has been leading the implementation of DESD worldwide, identified the main features of ESD as: design of an interdisciplinary and holistic curriculum; sharing the values and principles underpinning SD; critical thinking and problem solving skills; use of a multi-method approach in the teaching and learning; integrating learning experiences in personal and professional life; participatory decision-making of learners; local relevance: addressing local as well as global issues using the language(s) of the learners; and critical

[12]Ecocentric perspectives refer to a philosophy that places intrinsic value to all living organisms and their natural environment, regardless of their perceived usefulness or importance to human beings (Rowe, 1994).

[13]Anthropocentric is a philosophical viewpoint arguing that human beings are the central or most significant entities in the world. It also refers to interpreting or regarding the world in terms of human values and experiences (Brennan & Yeuk-Sze, 2016).

[14]Technocentric perspectives refer to a value system centered on technology and its ability to control and protect the environment (Wikipedia, The Free Encyclopedia, 2016).

respect for others (present and future generations), for difference and diversity, for the environment, and for the resources of the planet we inhabit (UNESCO, 2006b, pp. 4-5; UNESCO, 2007, p. 6).

ESD is shaped by perspectives on, for example, human rights, peace and human security, gender equality, cultural diversity and intercultural understanding, health, HIV/AIDS, governance, natural resources, climate change, rural development, sustainable urbanization, disaster prevention and mitigation, poverty reduction, corporate responsibility and accountability, and the market economy. These all have implications for the attainment of a more sustainable process of change perspectives which deal with all human development fields as well as the critical challenges of the world. These have implications for the attainment of a more sustainable process of change (UNESCO, 2006b).

The 2009 Bonn Declaration for SD, adopted at the UNESCO World Conference on ESD, reiterates that:

> Through education and lifelong learning, we can achieve lifestyles based on economic and social justice, food security, ecological integrity, sustainable livelihoods, respect for all life forms and strong values that foster social cohesion, democracy and collective action. Gender equality, with special reference to the participation of women and girl children in education, is critical for enabling development and sustainability. Education for sustainable development is immediately necessary for securing sustainable life chances, aspirations and futures for young people (UNESCO, 2009a, p. 1).

Besides, the Bonn Declaration reaffirms that:

> Building on the Jomtien, Dakar and Johannesburg promises, we need a shared commitment to education that empowers people for change. Such education should be of a quality that provides the values, knowledge, skills and competencies for sustainable living and participation in society and decent work. The Education for All agenda underlines that the availability of basic education is critical for sustainable development. It similarly emphasizes pre-school learning, education for rural people and adult literacy. Achievements in literacy and numeracy contribute to educational quality, and will also be critical to the success of ESD (p. 1).

This declaration implies that ESD and lifelong learning enhance learner empowerment and contribute to the realization of the comprehensive perspective of SD. As a prerequisite to the SD goals formulated in 2015, the members of the Conference reaffirmed the need for an effective education system and of adult literacy education to promote values, knowledge, skills and competencies that empower people.

Education, Literacy and the Sustainable Development Agenda

The 2030 agenda for sustainable development has 17 goals of which goal 4 envisages to ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all (UN, 2015). This goal specifically aims to ensure the following targets for SD:

> All learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development by 2030 (UN, 2015).

Hoppers and Yekhlef (2012, p. 18) also argue that SD can influence education in various ways:

1. Paying attention to the environment, its exploitation and preservation as part of learning, and to the relationship between schools/learning centers and their environment;
2. Developing a fully inclusive approach to educational development so that all children, youth and adults have equitable access to relevant and appropriate basic education following the principle of LLL;
3. Incorporating into the curriculum a range of basic skills, competencies, attitudes and values associated with living together in a non-discriminatory and non-racial manner; promoting democratic decision-making, prevention of conflict and respect for differences; building capacity and commitment to work for the betterment of society; enabling younger and older learners to deal with change;
4. Promoting application of taught skills and values as a basis for lifelong interaction between learning and living.

This suggests that ESD contributes to SD, but the goals for SD can also influence the content of formal and non-formal education, for example in terms of caring for the environment and providing fundamental skills, competencies and practices within a LLL perspective. ESD can have an enduring impact on education through reform of educational provision, the curriculum and the quality and relevance of the teaching and learning process (Hoppers & Yekhlef, 2012, p. 18). Capable curricula designers and teachers, adequate resources and building a strong institutional system are preconditions to addressing effectively issues of sustainability through education and training. Emphasis should be given to skills, values and perspectives that encourage active participation of all citizens (Walters et al., 2012; Trudell, 2009). These are often rooted in learner-centered approaches.

Research and experience indicate that literacy can be an important instrument to eliminate poverty and to achieve development. In Africa, local language literacy programs lead to a

wide range of development benefits and by their very nature can reach the populations most in need: the rural; the poor; women; and those who struggle to succeed in the formal education system. Whether carried out in formal or non-formal contexts, local-language literacy facilitates development in a variety of ways, and its inclusion in locally situated development efforts is key to their sustainability (Trudell, 2009).

Literacy education for the poor can serve two major purposes: increasing their income, and improving ideas and values that enable them to eradicate poverty (Yibing, 2000). As former UN Secretary-General Kofi Annan (2005) points out, 'literacy is a key lever of change and a practical tool of empowerment on each of the three main pillars of sustainable development: economic development, social development and environmental protection'. This claim supports the major assumption in this dissertation, namely that there is a causal connection among literacy, empowerment and SD.

3.4 Conclusion

The discussion of the empirical studies on ALE, the models of literacy, and the concepts of empowerment and SD indicates that well implemented ALE programs play an important role in enhancing learner empowerment and supporting SD efforts of a country.

The review shows that ALE programs should be based on needs assessment of potential participants and the community at large, appropriate choice of literacy model to be followed, and identification of services to be provided, and the source of funding if it is to satisfy the interests of target communities and governments. What is equally important is the implementation process. Scholars report that poor access to ALE, high dropout rates, low skills retention, shortage of relevant material supplies and qualified manpower, relapse into illiteracy, inappropriate use of teaching methods, poor program monitoring, supervision and support, and unfavorable learning and working conditions are negative results of both flawed design and poor implementation of ALE.

As indicated in the review, the precondition to successful implementation of ALE programs is, amongst others, a relevant curriculum with appropriate teaching methods, quality training for staff, favorable time and environment for learning, careful planning of manpower and human resources, adequate funding, and enhanced participant access to the programs (Ishaq and Ali, 2012; PHMC, 2011; Oxenham, 2008). However, these factors have been identified without due regard for an efficient institutional system. This dissertation claims that

implementing a relevant curriculum and building an efficient institutional system are equally important foundations of a successful literacy program.

The review also reports that effectively implemented ALE programs lead to measurable changes in knowledge, skills and attitudes of individual adult participants (outcomes) as well as impact on family, community and society. ALE scholars have studied outcomes and impacts (empowerment gains) from ALE through observation of behavior as well as self-report with indicators for political, economic, social, cultural and psychological dimensions. However, many found that measuring the contribution of ALE to empowerment gains is challenging, for example due to the difficulty of separating the contributions of ALE from prior formal/non-formal education. This dissertation agrees that empowerment gains in terms of knowledge and practice can also be obtained from other independent informal and non-formal sources and seeks to explore the contribution of, for example, local leaders, agricultural extension workers, and the local media.

According to the reviews, ALE enhances empowerment through the improvement of self-concept, self-esteem, self-confidence, participatory practice, knowledge and practice in politics, social integration, family cohesion, and livelihoods improvement. However, impacts and outcomes or empowerment gains vary from place to place, partly because of differences in the literacy model followed and the focus of the program as related to contextual factors. Based on the review of the literacy models, improvement of individual abilities for development (functional literacy), use of critical thinking and problem-solving skills for individual and social transformation (critical literacy), and use of active learning methods in teaching and learning (social practices) are understood as vital factors to analyze IFALE for empowerment and SD in Ethiopia.

The discussion of the review may suggest that there is a direct link between literacy, empowerment and SD although it is hard to prove. Literacy for empowerment and SD is founded on the pillars of education, develops the capabilities of learners, and improves their livelihoods. It must be positioned within the ESD frame, or embrace the eight major features of ESD. The empirical studies also help to identify the most relevant factors, indicators, dimensions and thinking on adult literacy and its role for development at different levels of analysis.

The review is the basis for the development of the analytical model that guides the conduct of the study on the implementation and contributions of IFALE in the two regions of Ethiopia,

Tigray and Amhara. This model is presented at the end of Chapter 4. The model rests on the understanding that there may be a causal connection amongst adult literacy education, empowerment and SD. This assumption is supported by the theory of evidence for use (causation) that is first presented in Chapter 4.

Chapter 4
Causation and Evidence-based Policy as the Foundation for the Analytical Model of the Study

In this chapter, an analytical model is constructed which will guide the analysis of the links between IFALE, empowerment and SD in the selected regions in Ethiopia. As discussed in Chapter 3, there is general agreement that literacy and adult education contributes positively to a range of developments at different levels. But it is generally difficult to prove cause and effect and to isolate literacy or adult education as a variable.

In order to attempt to do so in this study, understandings of causality and evidence-based policy are first introduced. These understandings help identify the important factors and dimensions for successful implementation of adult literacy education programs in the analytical model. They concern two main areas. One is a relevant curriculum which is also pertinent in previous literature (e.g. Ishaq & Ali, 2012; MoE, 2008). The other is building an efficient institutional system which is less stressed in previous literature although apparent in the NAES (MoE, 2008).

4.1 Understandings of Causation

Philosophers have discussed the issue of causation for centuries without reaching an agreement on what it is (Wood, 2005; Lau & Chan, 2008; Scaffer, 2016). Many agree that there are causes and effects in the world but often use other terms to discuss them, e.g. source or reason for cause, and result or implication for effect. They also often use the terms role or contribution of particular causes when discussing their relation or connection with the effects (Schaffer, 2016; Cartwright & Hardie, 2012). The search for causes is important for two reasons: to explain and understand how or why things are the way they are, or behave and change in certain ways; and, to intervene in the course of nature or events and bring about effects or prevent others from occurring.

The discussion of causation is also apparent in the field of education. As Kvernbekk (2015, p. 56) claims, ‘causation is an important ingredient in education, because causes make their effects happen….there is a focus on change and how it can be brought about, something

which surely lies at the heart of education…'. In Kvernbekk's understanding, school climate, educational leadership, high expectations of learners' achievements, clearly expressed goals, and assessment are frequently discussed causes that contribute to school effectiveness.

For the purpose of the analysis in this dissertation, the following notions from causation theory are particularly important: *support factors*, *causal cakes* and *their ingredients* (Cartwright & Hardie, 2012, pp. 61-75) and the *INUS condition* (an *i*nsufficient but *n*ecessary part of an *u*nnecessary but *s*ufficient condtion for a result*)* (Mackie, 1965). These are specific, practical and helpful for a more achievable policy and strategy.

4.2 The Notions of Support Factors, Causal Cakes and Their Ingredients

To discuss evidence-based policy, Cartwright and Hardie (2012, pp. 62-63) relate *support factors*, *causal cakes* and *their ingredients* to the metaphor of a cake. Cartwright and Hardie argue that homework can contribute to improved reading scores. In order to ensure a causal effect of introducing a policy of homework, the notion of a cake is introduced. The causal cake in Figure 4.1 identifies support factors (or ingredients) that are necessary for the policy of homework to have an effect on reading scores, e.g. student ability, study space, student motivation, homework, consistent lessons, supportive family, work feedback, and others.

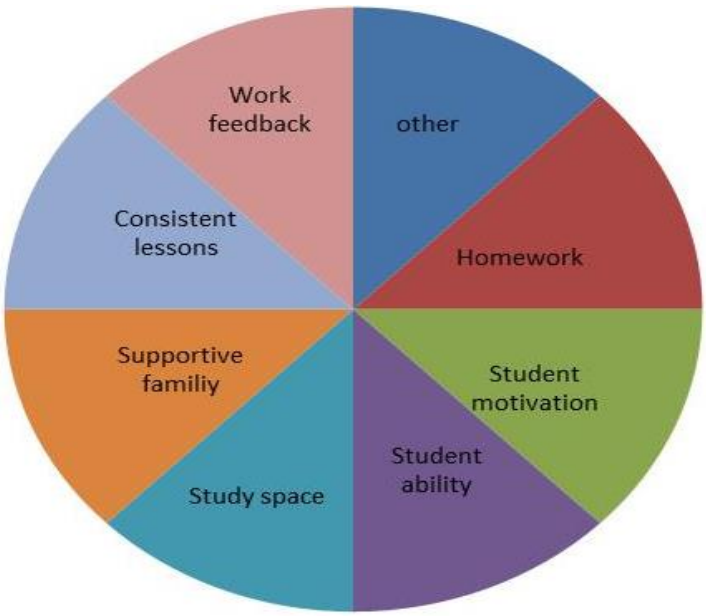

Figure 4.1: A causal cake for improved reading scores

The policy of homework is, therefore, only one ingredient in the cake. It plays its causal part together with the other ingredients (support factors) to produce a contribution to the outcome

(improved reading scores). This implies that in the absence of the support factors, there is unlikely to be a significant contribution. Moreover, the presence of the whole cake cannot determine the value of the effect (reading scores) because it is likely to be only one of many to have an impact in a given situation (Cartwright & Hardie, 2012, p. 63).

The *INUS* condition is a related philosophical notion. Mackie (1965, p. 245) explains the cause of a fire in a house using fire experts' investigation about its causes. In his claim, a short-circuit and other positive and negative conditions, such as the presence of inflammable material, the absence of a suitably placed sprinkler, and others, create a complex condition that is sufficient for a house to catch fire: it is sufficient, yet not necessary, since other conditions could have produced the fire. Under this condition the short-circuit plays the decisive role (is necessary) since without the short-circuit, a combination of the other parts of this condition would not have produced the fire. Based on this, Mackie (1965) defines the *INUS condition* as follows:

> In this case, then, the so-called cause is, and is known to be, an *i*nsufficient but *n*ecessary part of a condition which is itself *u*nnecessary but *s*ufficient for the result. The experts are saying, in effect, that the short-circuit is a condition of this sort, that it occurred, that the other conditions which conjoined with it form a sufficient condition were also present, and that no other sufficient condition of the house catching fire was present on this occasion. I suggest that when we speak of the cause of some particular event, it is often a condition of this sort that we have in mind. In view of the importance of conditions of this sort in our knowledge of and talk about causation, it will be convenient to have a short name for them: let us call such a condition (from the initial letters of the words italicized above), an *INUS* condition (p. 245).

Cartwright and Hardie (2012) argue that the application of the notions of s*upport factors*, *causal cakes and their ingredients,* and the *INUS condition* can lead to better results from policies.

4.3 A Policy for Better Results

Cartwright and Hardie (2012, p. 61) argue that evidence-based policy is more likely to be successful than Randomized Controlled Trials (RCTs) which policy makers most commonly privileged as the best evidence for causal claims. RCTs can be used to identify a causal relation for a particular population in a study, but further assumptions are needed to extrapolate a causal relationship to another population in another study. RCTs show that a policy has produced a result 'somewhere', in one specific context, but does not guarantee that the same result can be produced 'here', in another context. In contrast, evidence-based policy is based on evidence for use, i.e. on an understanding of the kind of knowledge that can lead

to reliable predictions of whether policies will work as intended (Cartwright & Hardie, 2012, p. 61). There are two preconditions in the theory of evidence for policy effectiveness: the need for a 'causal model' to evaluate whether a policy will be effective for a targeted outcome; and an understanding of causes as *INUS* conditions (Cartwright & Stegenga, 2011, p. 308). The theory, therefore, implies that moving from the fact that 'a policy worked somewhere' to 'it will work here' requires critical thinking about support factors. This means identifying contextual support factors that must be in place for a policy to produce a contribution or have an impact.

4.4 Understanding the Causation of IFALE, Empowerment and SD in Ethiopia

In this dissertation, the assumption is that the policy of IFALE will be more productive in terms of empowering learners and supporting SD if it is based on the theory of evidence for use. The causal connection implies that the IFALE policy contributes to the empowerment of learners, and this effect, in turn, supports SD (Figure 4.2).

IFALE Policy ⟶ Learners' Empowerment ⟶ SD

Figure 4.2: Causal connection of the IFALE policy to SD

For the IFALE policy to bring about the expected result, its designers (policy makers) must analyze the context thoroughly, identify the key factors that support its improvement, work out the relations among factors, identify strategies, and ensure commitment for successful implementation of the IFALE policy. Policy makers should have adequate knowledge to design locally conditioned policies. A locally conditioned deficient policy will either fail or make less contribution to the expected outcome.

Cartwright and Hardie (2012, p. 64) emphasize that policy thinking is complex and needs to be implemented in consideration of the support factors, i.e. a causal cake that makes a contribution, and of other cakes that may make contributions. Identifying support factors and other cakes implies a *horizontal search*. The horizontal search takes into account whether the support factors in the population of the previous study are also found in the target population. But,

> For the most part, though, predicting what will actually happen is way beyond your means, since you generally will have little knowledge of what other cakes will be operating. So mostly our advice is geared to helping you predict not what will actually

> happen all told, but at least whether your proposed policy will make things better (Cartwright & Hardie, 2012, p. 64).

This implies that analyzing and applying a policy based on local facts is not foolproof. Nevertheless, a policy designed wisely can lead to better results than one that is not. In view of this, support factors are identified in this study that might enable the IFALE policy to generate its expected contribution to empowerment and SD in Ethiopia, and ways of implementing the policy are suggested. An effectively implemented IFALE is more likely to lead to empowerment of learners and the support of SD.

4.5 The Causation of IFALE

What does it take to have an IFALE policy in Ethiopia that can lead to learner empowerment? To answer this question, factors needed for effective implementation of adult literacy education have been adapted and contextualized from effective literacy programs in the literature, the key characteristics of exemplary adult literacy programs, and the models of literacy reviewed in the previous chapter. The success of IFALE is influenced by the political will at national and regional level, their relative autonomy, and the socio-cultural, economic and other conditions that vary from one region to another.

4.5.1 Strategy of a Relevant Curriculum

One common factor is the strategy of a relevant curriculum which was also announced by the MoE (2008, p. 14). In order for this strategy to play a causal role, it requires relevant support factors. In this study, factors that characterize model literacy programs in the literature (Ishaq & Ali, 2012; PHMC, 2011), features of the social-practices model of literacy (Tett & Clair, 2010; Hamilton et al., 2006), and inputs related to quality and relevant adult education stated in NAES (MoE, 2008) have been adapted and contextualized within the framework of evidence-based policy thinking.

The support factors for the strategy of a relevant curriculum are: supply of primers and additional materials; qualified officials, experts and facilitators; use of active learning methods; learner motivation and access to IFALE; adequate learning aids/facilities; appropriate environment and time for learning; and others. The factors are displayed in Figure 4.3 in accordance with Cartwright's and Hardie's (2012) philosophical notions of the cake and its ingredients or support factors.

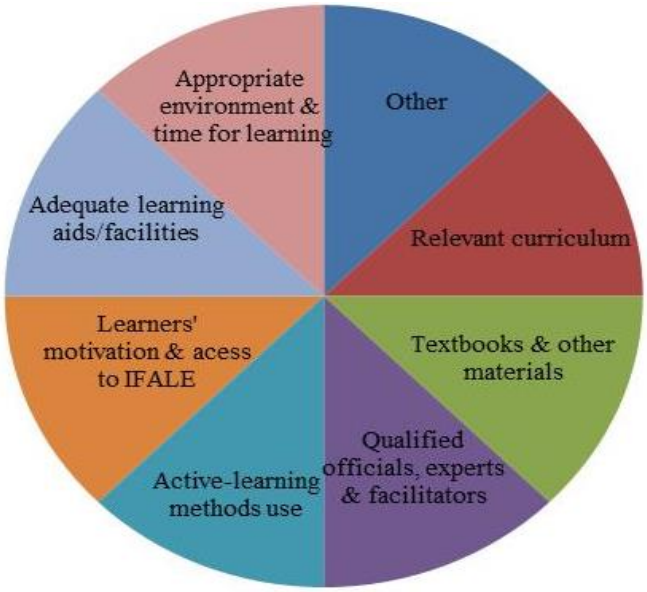

Figure 4.3: A cake for IFALE in Ethiopia: curriculum and support factors

In Figure 4.3, the strategy of a relevant curriculum combines with the support factors to produce a contribution to the implementation of IFALE. Excluding one of the ingredients will lead to deficiency in the implementation of IFALE. The lesser the attention to any of the support factors, the lower the contribution of the strategy would be.

The strategy of a relevant curriculum must be put into practice taking a range of issues into consideration. The Adult and Non-formal Education Coordination Department in the MoE has already produced a country level or National IFALE Curriculum Framework that includes contents from the development packages of the country. However, each region should consider the local needs and conditions of the learners and produce relevant primers and other support materials in the local language of the learner. Officials, experts and facilitators should be qualified. They must continually receive relevant training to enhance their qualifications in accordance with the IFALE program. Each facilitator requires training at least in understanding the particularities of teaching adult learners and the way they can best learn literacy, the contents, and the use of learner-centered methods for facilitation of adult literacy classes. Each IFALE official and expert should receive capacity building training on issues of adult and non-formal education, including literacy education, literacy education organization and management, and ways of strengthening collaboration with stakeholders.

During the facilitation and learning process, facilitators must use active learning (or learner-centered) methods, such as group discussions, demonstrations, case studies, reflections and educational games, as well as receive follow-up training to strengthen this. With respect to the

practice of learner motivation, the local adult literacy education officials at various levels, local leaders and community organizations must work hand-in-hand to convince learners to join IFALE, and particularly to make it accessible to rural adults. The knowledge, skills and commitment of the facilitators, as revealed during the facilitation process and the planning of the literacy classes, would influence the learners' motivation to learn. The wereda officials and facilitators—in collaboration with the local administration, women's association and other pertinent local social organizations—must encourage rural adults to participate in IFALE, for example by discussing its values, and by opening new IFALE centers near potential learners.

In order to support the strategy of a relevant curriculum, IFALE officials in the regional education bureaus and the wereda education offices must provide good, relevant and adequate facilities, such as chalkboards, charts and pictures, to the IFALE centers. Rural adult literacy classes can take place in nearby primary schools either early in the morning or in the evening before and after the primary school classes, rather than at noon and under trees where there is no shelter or benches. This would contribute to an appropriate learning environment and lesson delivery time. Learners must be fully involved in decisions of where and when literacy classes take place.

4.5.2 Strategy of an Efficient Institutional System

Another requirement for the effective implementation of IFALE in Ethiopia is the strategy of building an efficient institutional system in the country (Figure 4.4). This depends on strong leadership, motivated officials, experts and facilitators, a clear policy direction, shared understanding of IFALE (for example of its vision, values, principles, and objectives), collaboration among stakeholders, good working conditions, and an adequate budget. These factors are contextualized in this dissertation in accordance with exemplary literacy programs (Ishaq & Ali, 2012; PHMC, 2011), and the strategic directions in NAES (MoE, 2008) and other relevant Ministry documents (MoE, 2010a, 2010b, 2010c, 2012).

An efficient institutional system should address adult and non-formal education from the federal to the center level and have an effective monitoring, evaluation and reporting system. However, this will not result in the expected results from IFALE unless activities related to the support factors are undertaken.

Figure 4.4: A cake for improved IFALE: institutional system and support factors

Strong leadership is key to an effective adult literacy program. The program needs capable leadership (officials and experts) whose capacity is built over time and who rely on an enabling environment. There must be a clear strategic direction for implementing IFALE (why it is necessary, how it can be implemented, and what it is going to do). All major stakeholders of IFALE, including the Ministries of Agriculture, Health, and Women's Affairs, should be involved in the implementation.

The duties and responsibilities of the collaborators from the federal level to their employees at the IFALE centers should be defined according to IFALE tasks. The leaders and experts of IFALE as well as the various stakeholders should develop a common understanding of IFALE through training and consultation. Working conditions must be democratic, transparent and comfortable, and continuously improved. An efficient institutional system depends on a reasonable budget to cover all necessary costs. Good working conditions and a reasonable budget will contribute positively to the motivation of all involved. When the strategic direction, shared values, collaborative action, and reasonable running costs and remuneration exist, officials at all levels, experts and facilitators are likely to be well motivated to implement IFALE effectively.

The strategies of a relevant curriculum and an efficient institutional system permit a separate analysis of how productive IFALE teaching and learning is and how the IFALE organizational set up works. Each is essential for the success of IFALE. Therefore, the two strategies with their identified support factors have guided the development of the research

instruments used for data collection regarding the implementation of the IFALE policy in Ethiopia (refer Chapter 5).

4.6 The Causation of Learner Empowerment and SD

Mackie's definition of the *INUS* condition as employed by Cartwright and Hardie (2012, pp. 63-64) is relevant to analyze the IFALE policy in relation to the causal cake for improving learner empowerment (Figure 4.5). In this case the IFALE policy is an *INUS* condition, namely an *I*nsufficient part to produce a contribution (improved learner empowerment and SD) as it requires other ingredients (support factors), such as agriculture and rural development, health, women's affairs, youth and sports, and labor and social affairs and other sectors. These sectors have signed a memorandum of understanding to support adult education in Ethiopia (MoE, 2010a, p. 3). Without these support factors, the contribution of IFALE to learner empowerment may be very small, but when combined the expected outcome could be met. However, the IFALE policy must exist as a *N*ecessary ingredient. It and its corresponding cake is, however, *U*nnecessary as regards a contribution to the effect (learner empowerment and eventually SD) since other cakes with other policies and support factors, for example training farmers in Farmers' Training Centers (FTCs), can play a role in learner empowerment and SD. At the same time, the IFALE policy and its support factors are *S*ufficient to generate a contribution to the effect of learner empowerment and SD in their own right.

IFALE should help rural adult learners acquire the basic skills of reading, writing and calculating, as well as life skills (MoE, 2010c). In the literature and in Ministry documents, the knowledge and skills relevant to daily life of the learners covers a range of issues on participation in politics; community development activities; gender equality; family cohesion; family planning, personal hygiene and child and maternal care; HIV/AIDS control; environmental protection; agricultural technology use; social justice; democratic culture; conflict resolution; harmful traditional practices; and self-concept and self-efficacy (Burchfield et al., 2002a; 2002b; Carion et al., 1989; Kagitcibasi et al., 2005; Vasumathi, 2008; Stromquist, 2009; MoE, 2010c; TBE, 2010; ABE, 2011a, b; ABE 2012a, b).

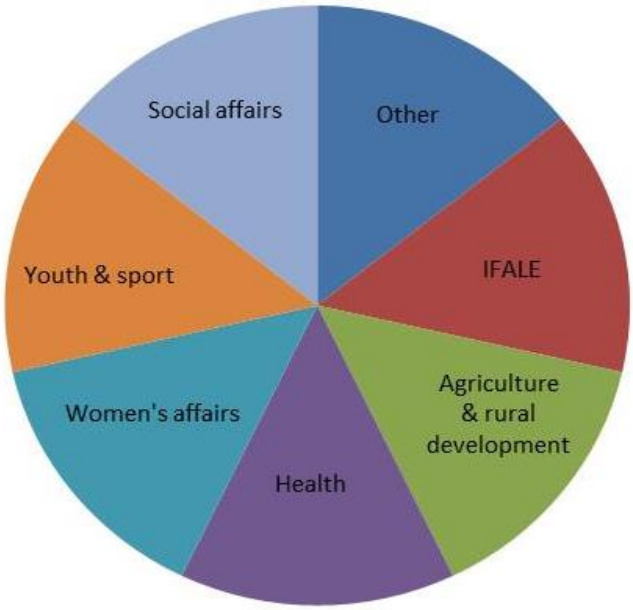

Figure 4.5: A cake for the IFALE policy and support factors for learner empowerment and SD

IFALE should also enable learners to apply their knowledge and skills in their everyday life. Other support factors, such as the Ministries of agriculture and rural development, health, women's affairs, youth and social affairs should also contribute to equipping the learners with knowledge and practices required for empowerment and SD.

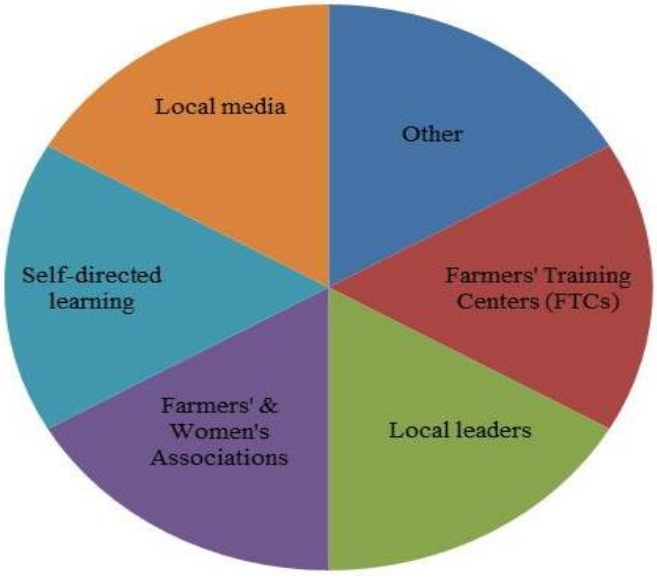

Figure 4.6: A cake for learners' empowerment and SD: FTCs and support factors

However, IFALE is not alone in contributing to learner empowerment and SD since other causal cakes and their ingredients might have an influence as well. The policy of training farmers in FTCs is an imperative *INUS* condition (Figure 4.6). Amongst the support factors are: self-directed learning efforts of farmers (personal motivation and initiative to learn new

things), local media sources (especially radio, TV, and newspapers), local administration leaders, and farmers' and women's associations.

Unless policy makers explore and support the most relevant policies and also recognize informal ways of learning, e.g. indigenous knowledge from local culture, elders, parents and friends, the IFALE policy may be inadequate in terms of the expected effect on empowerment and SD in Ethiopia. Learning must include all forms of learning and be life-long.

The two strategies with their support factors are brought together in the analytical model presented in Figure 4.7.

4.7 Analytical Model for the Study

In Figure 4.7 the causal chain and pathways (or direction) of IFALE, empowerment and SD are displayed. The model underlies the research design and guides the analysis of the data on the implementation of IFALE in Tigray and Amhara regions. It focuses on the two main strategies of a relevant curriculum and an efficient institutional system with their support factors. The support factors for each of the two main strategies have been identified based on the review of successful literacy programs and the Ethiopian context. These will be used to examine the relative success of the IFALE policy for learner empowerment and SD in the selected regions understood under the influence of other external factors that have been identified through contextual analysis. The IFALE policy is understood to have its own support factors as expressed in the nature of collaboration across different ministries.

In the dissertation, empowerment refers to a set of feelings, knowledge, skills and practices that enable learners to participate in their social environment and thereby lead to social transformation. This is in accordance with Stromquist (1995; 2009) and supported by Olaleye and Adeyemo (2012). While Stromquist identified cognitive, political, economic, and psychological dimensions of empowerment, this study excludes the cognitive dimension but includes the socio-cultural dimension. The dimensions are understood as follows in the dissertation:

Political empowerment refers to IFALE participants' involvement in institutions and policies at the community or national level in accordance with Stromquist (2009). The indicators have been adapted from Burchfield et al. (2002a; 2002b) and Carion et al. (1989) and include knowledge of voting age and political parties, participation in voting and decision making in public institutions.

Economic empowerment denotes the contribution of IFALE to individuals' capacity to support themselves economically, have an improved life and make autonomous decisions. This is based on the definition by Stromquist (2009). The indicators have been adapted from Stromquist (2009), Cameron and Cameron (2005), and the development packages of Ethiopia embraced in the IFALE Curriculum Framework (MoE, 2010c). They include: access to credit and income generation schemes, financial contributions to productive investment and/or mutual support, as well as importance and practices of agricultural technologies, environmental protection and saving.

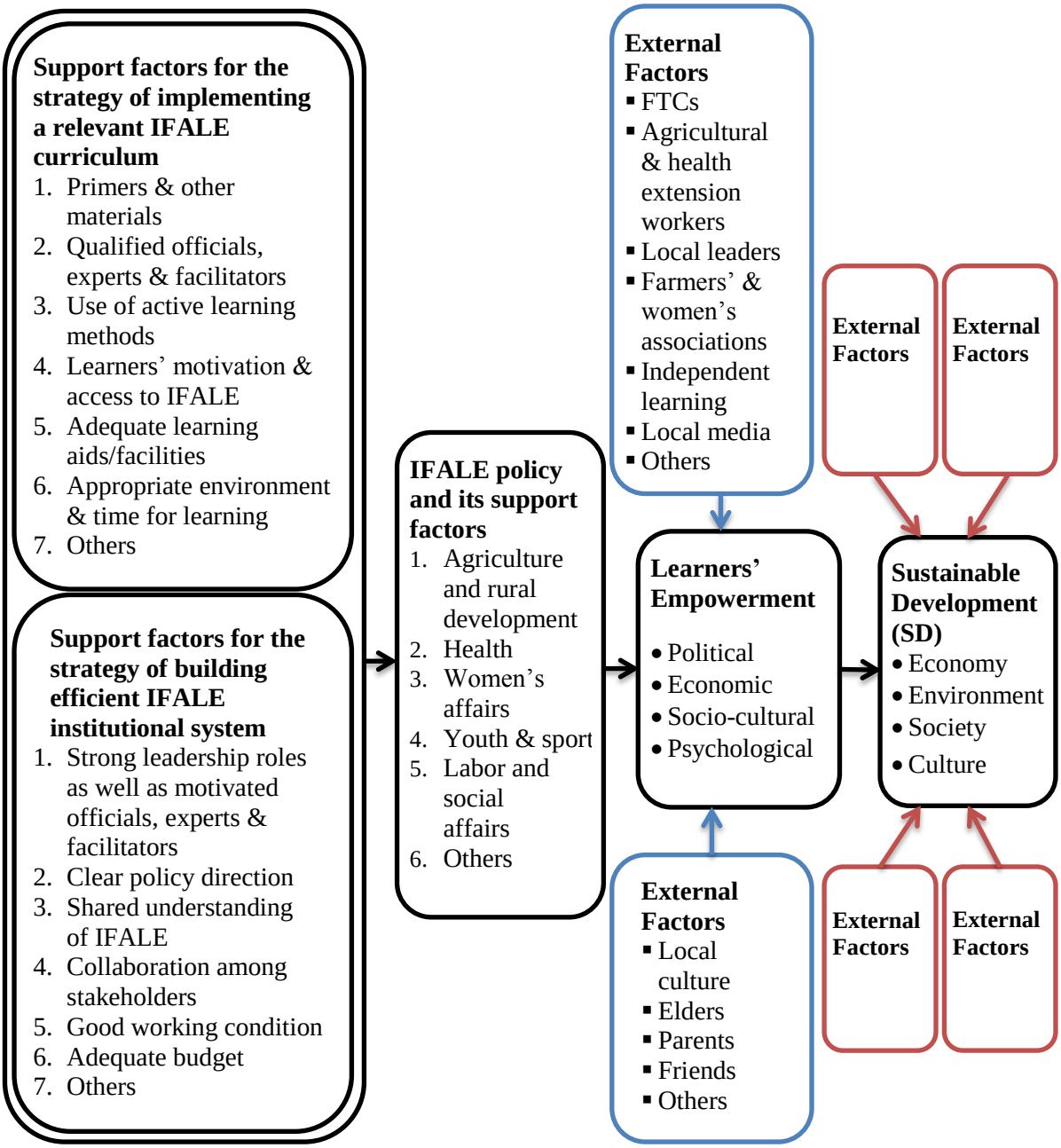

Figure 4.7: A model of IFALE causal pathways for learner empowerment and SD

Socio-cultural empowerment represents an individual's ability to enhance social capital (such as maintaining good health and living longer, learning throughout life, controlling reproductive behavior, raising healthy children, and addressing gender equality), develop and promote new values as well as transform other values, attitudes and behaviors. This definition is based on UNESCO (2005c) and Vasumathi (2008, pp. 121-122, p. 129). The indicators of socio-cultural empowerment have been adapted from Kagitcibasi et al. (2005), Burchfield et al. (2002a; 2002b), Farah (2005), UNESCO (2005c), Vasumathi (2008) and the development packages of Ethiopia included in the IFALE Curriculum Framework (MoE, 2010c). They include family planning, gender equality, HIV/AIDS prevention, maternal and child care, value of children, modern practices, and democratic culture.

The psychological dimension has been adapted from Stromquist (2009) as the learners' feeling of being competent, worthy of better conditions as well as capacity to take action. The indicators of self-concept and self-efficacy knowledge and practices have been adapted from Kagitcibasi et al. (2005) and Stromquist (2009). *Self-concept* is a general term used to refer to how someone thinks about, evaluates or perceives him/herself. To be aware of oneself is to have a concept of oneself. According to Baumeister (1999), *self-concept* is 'the individual's belief about himself or herself, including the person's attributes and who and what the self is'. *Self-efficacy* refers to belief in one's general capacity to handle tasks or succeed in tasks.

In the dissertation, IFALE's contribution to SD through empowerment is understood based on its approach to teaching and learning ideals and principles underlying SD. These include fundamental issues, such as livelihood improvement, environmental and natural resource conservation, gender equality, inclusive societies and social cohesion. These are understood as interlinked and rest on a holistic approach to teaching and learning. The definition of IFALE for SD has been adapted from the conceptualization of UNESCO (2006b, 2007), Huckle (2008), Ndoye and Walther (2011), and Hoppers and Yekhlef (2012). The analysis of IFALE investigates the extent to which IFALE fulfills the main features of ESD in the two selected regions. Indicators to explore IFALE's role for empowerment also serve as indicators for SD since the domains of empowerment (political, economic, socio-cultural and psychological) are analyzed in relation to the four components of SD, namely economy, society, environment and culture. In addition to the factors for learner empowerment, other external factors, for example agricultural and rural development, health, and energy policies contribute to the SD of a country. However, these external factors are not of concern in this dissertation.

The model displayed in Figure 4.7 helps to explore what support factors might be missing, be partially at work, or adequately implemented in Tigray and Amhara. Each list of factors in the model also helps to understand whether the IFALE policy is evidence-based. An evidence-based policy must be rooted in local conditions, implemented with proper follow up, and integrated with other relevant policies to bring about the expected results. How the research was designed and methods selected to collect the data for investigating IFALE's contributions to empowerment and SD is discussed in Chapter 5.

Chapter 5
Research Design and Methodology

In this chapter, the underlying philosophical assumptions or worldview informing the research design, analysis and interpretation of the study is presented. The chapter also outlines the methodologies for collecting and processing the data. It brings up a range of methodological and ethical issues related to the research process in order to establish the validity and reliability of the research findings.

5.1 Realism as the Epistemological Stance

Realism is the epistemological stance of the study because of its affinity with causation and evidence-based policy. For Phillips (1987, p. 205), realism is 'the view that entities exist independently of being perceived, or independently of our theories about them'. Schwandt (1997, p. 133) defines scientific realism as 'the view that theories refer to real features of the world. 'Reality' here refers to whatever it is in the universe (i.e., forces, structures, and so on) that causes the phenomena we perceive with our senses'.

Chakravartty (2015, p. 1) has a more comprehensive definition: 'Scientific realism is a positive epistemic attitude towards the content of our best theories and models, recommending belief in both observable and unobservable aspects of the world described by the sciences.' In brief, in realism, several entities (both the observable and the unobservable) described by theories certainly exist. An adult learner, a textbook, IFALE centers, and regions in a country are real entities and so are literacy, empowerment, and SD.

Antirealists do not accept the existence of an unobservable (intangible) aspect: the only real entity for them is what is observable (can be seen or touched). Antirealism is an epistemic attitude that includes any position against one or more of the three dimensions of realism. These dimensions include 'the metaphysical commitment to the existence of a mind-independent reality; the semantic commitment to interpret theories literally or at face value; and the epistemological commitment to regard theories as constituting knowledge of both observables and unobservables' (Chakravartty, 2015, p. 10). According to the realists, both observable and unobservable entities represent scientific truth, whereas for antirealists they are not. In this study, theories represent instruments for intellectual thinking and knowledge production which combine observable and unobservable entities.

5.2 Comparative Case Study and Study Locations

The study is a comparative case study of IFALE policy implementation and its contribution to empowerment and SD in rural areas of two regions of Ethiopia: Tigray and Amhara (Figure 5.1). A case study is an in-depth study of one or more instances of a phenomenon in its real life context that reflects the perspective of the participants involved in the phenomenon (Gall, Gall, & Borg, 2007). For Anderson (1998), case studies principally deal with how and why things occur and, thereby, provide an opportunity to explore the realities about an event, a process, or a problem relating to the case. Under a similar condition, there can be two or more cases for comparison. The most common geographical level of analysis in educational comparative studies is a country; however, world regions/continents, states/provinces/regions, districts, schools/institutions and classrooms can also be compared (Bray & Thomas, 1995).

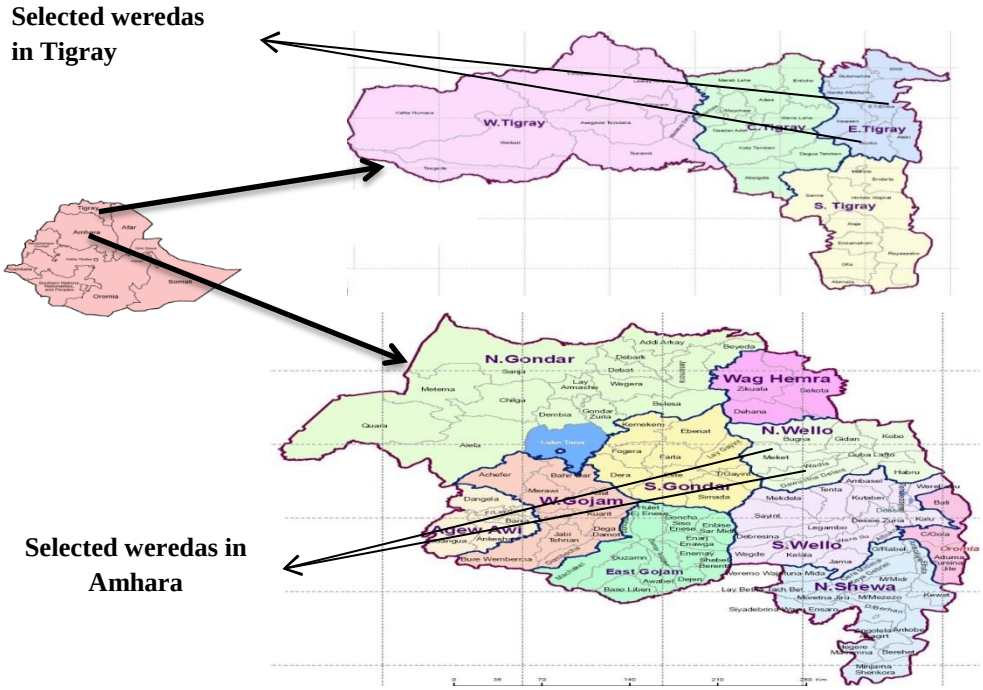

Figure 5.1: Study locations in Tigray and Amhara
Source: http://www.ethiodemographyandhealth.org/Amhara.html; http://www.tigraytube.com/article_ read.php?a=1; https://commons.wikimedia.org/wiki/File:Ethiopia_regions_english.png (Images copied 26 January 2017)

Ethiopia is a very large country that has much variation between regions in various spheres. Of the nine regional states and two city administrations in Ethiopia, the neighboring Tigray and Amhara regions were selected purposefully for comparison. This is partly because the source of funding for the study is the joint Collaboration Project of the University of Life Sciences (Ås) in Norway, and Mekelle and Hawassa Universities in Ethiopia that focuses on

northern Ethiopia. More importantly, Tigray and Amhara are two of only four regions (together with Oromia, and Southern Nations, Nationalities and Peoples regions) representing the four parties founding the EPRDF, the front that is currently leading the country. The four regions have stronger capacity than the other regions to implement the development endeavors of the various sectors, including the education sector. Thus, the study was likely to produce more solid results if conducted in any of these four regions. Oromia and Southern Nations, Nationalities and Peoples region could not be selected because of the restrictions on the use of the funding. Furthermore, since regions have their own separate administrations, the importance attached to and the understanding and implementation of IFALE strongly depends on the local and regional context. The two selected regions could, therefore, potentially differ despite their proximity and similarities.

CSA (2013) projected the population of Tigray and Amhara to be 5,247,005 and 21,134,988 respectively in 2016[15]. The Tigray Regional State (Tigray) in the northern part of Ethiopia had a population of 4,314,456 in 2007. The majority (80.5%) was agrarian of whom 50.8% were females (Federal Democratic Republic of Ethiopia Population Census Commission, 2008). Tigray has seven zones. The study was done in the Eastern Zone and its two corresponding weredas (Saesea-Tseada Emba and Kilte-Awlaelo) (Figure 5.1).

The Amhara Regional State (Amhara) is located in the northwestern part of Ethiopia. Based on the 2007 census, the region had a population of 17,214,056 almost equally divided between women and men (8,636,875 males and 8,577,181 females). The urban population was 2,112,220 people or 12.6% of the total. The region comprises 11 administrative zones. The study was done in Northern Wello and its two weredas (Meqhet and Wadla).

Historically, the two selected regions are interesting since political power has been concentrated until recently with the Amhara elite and in the capital of Addis Ababa, whereas Tigray led the political opposition movement that is now in power. Most Amhara elites have been proponents of a unitary government while the government in power has implemented federalism in the country on an ethno-linguistic basis.

[15] The latest census was conducted in 2007.

Table 5.1: Basic facts of Tigray and Amhara

S.No.	Item	Tigray	Amhara
1	Location*	Northern region of Ethiopia	Northwestern region of Ethiopia
2	Population projection for 2016*	5,247,005 (2,587,003 male; 2,660,002 Female)	21,134,988 (10,585,995 Male; 10,548,993 Female)
3	Zones*	Western, Northwestern, Central, Eastern, Southeastern, Southern and Mekelle Special Zone (7 zones)	Waghemira, North Wollo, North Gondar, South Gondar, South Wollo, North Shewa, Oromia, East Gojjam, West Gojjam, Awi and Bahir-Dar Special Zone (11 zones)
4	Adult literacy rate in 2014*	51% (68% male; 34% female)	40% (54% male; 25% female)
5	Household heads with higher education in 2011**	0.03 %	0.2%
6	Linguistic background and religious beliefs*	Semitic and Cushitic people; dominantly orthodox believers; dominant language is Tigrigna	Semitic and Cushitic people; dominantly orthodox believers; dominant language is Amharic
7	General livelihoods*	Small scale farming dependent on rain; poor and vulnerable rural people that supplement their food shortages from safety net programs	Small scale farming dependent on rain; poor and vulnerable rural people that supplement their food shortages from safety-net programs
8	Household heads working as farmers/family farm workers***	90%	89%
9	Total area transferred to commercial agriculture***	5%	7%
10	Improved seed user households***	18%	34%
11	Engagement in soil conservation by household***	85%	88%
12	Average number of livestock in a household***	3	3
13	Household heads with thatched roof houses***	39%	40%
14	Household heads with floor houses made of earth, and cow dung mixed with soil***	99%	100%
15	Households that own radio/TV***	26%	20%
16	Annual revenue of household from the sale of livestock ***	1001 birr (44 USD)	1053 birr (46 USD)
17	Annual revenue of a household from the sale of chicken***	30.6 birr (1 USD)	24.9 birr (1 USD)
18	Percentage of households with access to a vehicle during the rainy season***	39%	31%
19	Percentage of households with access to a vehicle during the dry season***	59%	51%
20	Distance to the nearest daily market***	23 km	22 km
21	Proportion of households with access to electricity***	29%	23%
22	Proportion of households with access to cell phone***	69%	80%
23	Proportion of households with access to tap water***	55%	39%
24	Proportion of households with access to radio broadcast***	98%	98%
25	Proportion of households with nearby primary schools***	42%	47%
26	Average distance to the nearest government clinic/health post***	12 km	10 km

Source: *CSA (2013); **Oakland Institute (2011) as cited in Bekele, et al. (2015); ***AGP Baseline Survey 2011 (Berhane et al., 2011)

Note: Items 4, 8, 10-26 are rounded figures.

While Amhara has had a relatively peaceful existence throughout history, Tigray was a war zone during 1965-1991 and again during the Ethio-Eritrean war during 1998-2000. This led to air-raids, destruction, migration and displacement and severely affected educational

opportunity. It also led to strong support for the Tigray Peoples' Liberation Front (TPLF) which together with four other freedom movements formed the EPRDF that ousted the socialist military regime ruling during 1965-1991. With the coming to power of the EPRDF, many non-Tigrayan elites consider that Tigray has benefited disproportionally from the dominance of the TPLF in the country's politics, economy, security and military (OPride, 2015).

Each of the two regions has its own political autonomy and is also exposed to different socio-cultural and economic conditions which may potentially affect the implementation and contribution of IFALE in the respective region. The literacy rate is comparatively higher for the lesser populated region of Tigray despite the fact that Amhara hosts more highly educated people and that educational opportunities have traditionally been more limited in Tigray because of the unrest and wars affecting the region (Table 5.1). Each region has a distinct mother tongue and language of instruction, namely Tigrigna and Amharic, despite sharing the same alphabet (Ge'ez). In terms of services, more people in Tigray own a radio/TV, and have more access to electricity, tap water, and transport than is the case in Amhara. On the other hand, Amhara has a higher proportion of households with access to a primary school and cell phones, as well as shorter distances to the nearest government clinic/health post. More households in Amhara than in Tigray participate in soil conservation and improved seed use, and receive a higher annual income from livestock. Although Amhara has a higher total land area for commercial agriculture than Tigray, the two regions are largely similar in terms of farm workers, average number of livestock, and annual revenue from the sale of chicken per household. They are also similar in terms of roof and floor quality of their houses, and distance to the nearest daily market.

5.3 Exploratory Sequential Mixed Methods Design

In order to conduct the study, an exploratory sequential mixed methods design was chosen. This means that qualitative data were explored before complementary quantitative data were gathered to explain relationships in the qualitative data (Creswell, 2012). According to Creswell and Clark (2007, p. 5):

> Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches in many phases of the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and

> qualitative approaches, in combination, provides a better understanding of research problems than either approach alone.

There are three main reasons for the choice of mixed methods in this dissertation. Firstly, it was necessary to have qualitative information or stories about the implementation of IFALE and the way IFALE embraces SD, as well as numbers (quantitative data) to analyze the role IFALE plays in learners' empowerment and support of SD. Creswell (2012, p. 35) states that the use of stories and numbers in a study presents 'an alternative perspective in a study'. Secondly, since interviews, observations and document analysis were insufficient to answer all the research questions, a survey was done to address the knowledge and practice of empowerment. The survey was developed in consideration of the provisional analysis from the qualitative data in order to extend, elaborate on and explain these data, and to discover causal relationships (Creswell, 2012; Greene, Caracelli, & Graham, 1989; King, 1994; Robson, 2011). Thirdly, the use of mixed methods permits triangulation, and integrating and embedding the data to understand the research issues fully (Roseman & Wilson, 1985; Creswell, 2012).

In the exploratory sequential design, the researcher's role can vary depending on the method of data collection. In this study, knowledge construction through interaction and collaboration with the participants was an integral part of the research process in order to understand the participants' experiences. I, the researcher, was an insider in the sense of being an Ethiopian from Tigray. However, I was an outsider as a student of the University of Oslo. According to Dwyer and Buckle (2009, p. 61) the researcher 'occupies the space between, with the costs and benefits this status affords'. During the qualitative data collection, I had direct contact with the participants. Their stories were immediate and real, their voices were not lost numbers and their understandings came out in the transcriptions of the data (Dwyer & Buckle, 2009, p. 61). During the survey, there was limited contact with the respondents since other interviewers had the direct contact with and provided the necessary background information to the respondents.

5.4 Sampling and Instruments of Data Collection

There were two phases of data collection. During the first phase (April-May 2013), qualitative data were collected based on interviews, observation protocols and checklists, and field notes were taken about the status of IFALE. Important documents were examined regarding the implementation of IFALE and its potential impact, in particular the ETP, the NAES, the

IFALE Curriculum Framework, the Master Plan for Adult Education, the facilitators' manuals and the primers.

The second phase took place five months later (November 2013) and concerned quantitative data. A survey was prepared based on the general results of the qualitative data. According to Creswell (2012, p. 543), 'a researcher uses the exploratory design when existing instruments, variables, and measures may not be known or available for the population under study'.

Table 5.2: Sampling procedures for study area and population

Type of sample	Selection
Purposive sampling	Tigray and Amhara
	91 interviewees representing the lower (weredas education offices and IFALE centers), middle (regional bureaus and zonal education offices) and upper (MoE) levels of the IFALE system
Purposive random sample	2 zones (Eastern Zone in Tigray; Northern Wello in Amhara)
	4 weredas (2 in Eastern Zone of Tigray; 2 in Northern-Wello of Amhara)
	16 centers (8 of 10 in Saesea-Tsada Emba and Kilte-Awlaelo weredas of Tigray; 8 of 11 in Meqhet and Wadla weredas of Amhara)
Simple random sample	184 of 619 IFALE participants in 16 centers that graduated from the program in May 2013 (Tigray 91; Amhara 93); 194 of 793 non-IFALE participants that registered to attend IFALE in the 16 centers in the academic year 2013/14 (Tigray 97; Amhara 97) However, 2 IFALE participants from Tigray could not attend the survey

After having selected the study area, 8 of the 10 literacy centers in Tigray and 8 of the 11 centers in Amhara were randomly purposefully sampled (Table 5.2). In both regions, the sample areas were assumed to be 'information rich' (Patton (1990, p. 169) and credible (Gall et al., 2007, p. 183). A purposive sampling procedure was used to recruit interviewees representing upper (MoE), middle (regional bureaus and zonal education offices) and lower (wereda education offices and IFALE centers) levels of the IFALE system. Ninety-one interviewees involved in planning and executing IFALE were purposefully selected. The categories of interviewees are further discussed below.

5.4.1 **Semi-structured Interviews**

In all 91 semi-structured interviews were conducted with officials at the different levels of administration as well as the supervisors, coordinators, facilitators, learners and collaborating institutions, such as NGOs and ministries other than the MoE (Table 5.3). Following an interview protocol (Appendix A) that was partly adapted from Rogers and Kramer (2008), the interviews aimed at examining how the interviewees understood the implementation and contributions of IFALE in terms of their own experiences, expectations, motivations and gains. Data from the interviews also helped identify a range of issues that the subsequent survey addressed in terms of the contribution of IFALE to learners' empowerment and SD.

Table 5.3: Category and number of interviewees

Category	Number	Total
Policy maker	2 Males	2
Federal expert	3 Males	3
Bureau head/Deputy and regional official	3 Males (1 Head of bureau, 1 curriculum and implementation official in Tigray, 1 Deputy Head of Bureau in Amhara)	3
Zonal official	2 Males (1 from each region)	2
Zonal IFALE expert/Focal person	3 Males (2 experts in Amhara, 1 focal person in Tigray)	3
Wereda official	4 Males (2 per region)	4
Wereda IFALE expert	2 Males (Amhara; no IFALE expert in Tigray)	2
Supervisor (including IFALE)	4 Males (2 Tigray, 2 Amhara)	4
School principal (IFALE coordinators)	13 Males (5 Tigray, 8 Amhara)	13
Facilitator	11 Males, 5 Females (8 in each region; 4 females from Tigray)	16
Learner	16 Females, 16 Males (half of each gender per region)	32
Federal NGO	3 Males (1 local, 2 international)	3
Collaborating bureau	1 Female, 1 Male (Amhara*)	2
Regional NGO	1 Male (Tigray)	1
Collaborating ministry	1 Male (Ministry of Health)	1
Grand total		91

*There are no collaborating bureaus (sectors) for IFALE in Tigray

Procedures to record the information from the field followed the six steps developed by Creswell (2009, p. 12) for analyzing and interpreting qualitative data: collecting data; preparing data for analysis; reading through the data, coding the data; coding the text for description; and coding the text for themes. The interview responses from the participants were audiotaped and notes were taken as backup. The interviews were organized and stored based on the administrative level and function of the interviewees: policy makers, regional officials, wereda officials, center coordinators, facilitators, and adult learners. The researcher and other professionals transcribed and translated the interview data from Tigrigna/Amharic into English. The data was coded manually based on themes. This required self-reflection in order to minimize bias. The thick description obtained from the interviews was an essential component of the study.

5.4.2 **Observations**

Observations served to examine how IFALE was implemented with respect to the strategies of a relevant curriculum and building an efficient institutional system. There were three kinds of observations based on observation protocols: observations of 16 IFALE sessions (8 in each region); observations of 16 IFALE centers, and observations of 4 IFALE participants' practices in their households (2 from Tigray and 2 from Amhara) (Table 5.4; Appendices B, C, D). The purpose of the observations was, in accordance with Creswell & Clark, 2011, to record detailed information on how the teaching and learning took place, what the learning environment was like, and how the IFALE learners applied their learning experiences in daily

life. The data from the observations, pictures and other visual materials, and reflective notes based on the information were organized according to the category of observation made.

Table 5.4: Center and participant observation by region and number

Instrument	Region	Number	Total
Session observation	Tigray	8	16
	Amhara	8	
Center observation	Tigray	8	16
	Amhara	8	
Observation of individual IFALE participants	Tigray	2 (1 Female, 1 Male)	4
	Amhara	2 (1 Female, 1 Male)	

The session observations focused on the objective(s) of the lesson, lesson contents, learner motivation, the role of the learners and facilitators, the time allotted for a session, the kinds of active or learner centered methods used in class, time distribution amongst facilitators and learners, and learner interaction amongst themselves and with facilitators. This gave a clear picture of classroom dynamics and how teaching and learning takes place. The observation form was filled in both by the researcher and by an experienced professional in adult education who served as a research assistant and who received training beforehand. After each session, agreement was reached on one observation form which was signed based on thorough discussion of the individual observation protocols.

The purpose of the center observation protocol was to examine the enrollment figures on the learners and the suitability of the learning environment. Information on enrollment was obtained from official records in the centers while information on the learning conditions were based on the observations.

The observation of IFALE participant practices in their own homes covered housekeeping, use of latrines, compost preparation, and mastery of other life skills taught in the program. The observation data were recorded in words and pictures.

5.4.3 Survey

The study examined the contribution of IFALE to learners' empowerment and SD based on survey participants' self-reports. The survey was distributed to a total of 376 individuals in the two regions of whom 182 were IFALE participants and 194 were non-IFALE participants. IFALE participants were the treatment group while non-participants were the comparison group (Table 5.5).

According to exploratory interviews with education officials, experts, facilitators and IFALE learners (Appendix A), IFALE participants in the two regions (Tigray 89; Amhara 93) had no

prior primary school or adult literacy education. According to the interviews, participants registered for the program after having been targeted by the IFALE center and the local administration. They enrolled in the program partly out of fear of being fined or of being dismissed from the safety-net program. Thus, self-selection seems not to have influenced their enrollment in the program. According to the same interviews, non-IFALE participants (Tigray 97; Amhara 97) were newly registered learners who also had no previous exposure to primary education or adult literacy education and who were also targeted by the IFALE center and the local administration.

Table 5.5: Number of survey participants in Tigray and Amhara

Region	Number	Total
Tigray	IFALE participants: 49 Females, 40 Males=89 Non-participants: 55 Females, 42 Males=97	186
Amhara	IFALE participants: 29 Females, 64 Males=93 Non-participants: 49 Females, 48 Males=97	190
Grand Total		376

The survey participants in each of the 16 centers (8 in Tigray; 8 in Amhara) were selected through simple random sampling based on official lists from the centers. Simple random sampling ensured that each individual had an equal chance of being selected (Tashakkori & Teddlie, 2010). Based on Yemane's formula[16] (1967, p. 886), the sample amounted to 153 IFALE participants (out of 619) and 162 non-participants (out of 793). Another 20% (31 participants and 32 non-participants) were added to compensate for individuals that could potentially not be contacted. This gave a final total of 184 participants and 194 non-participants. The IFALE participants (Tigray 91; Amhara 93) were selected from the total IFALE participant population size that completed the program in May 2013 (619 IFALE graduates) through simple random sampling. The 194 non-IFALE participants (97 from Tigray; 97 from Amhara) were also selected through simple random sampling from the total population of 793 who were registered as new entrants to the IFALE program in 2013/14 and, therefore, had not been exposed to the program at the time of collecting the data. Both groups

[16] $n=\frac{N}{1+N(e)^2}$

Where **n** is the sample size, **N** is the population size, **e** is the level of precision, and **1** is the probability of the event Occurring. Based on the formula, the sample size of the IFALE participant population was:

$n=\frac{619}{1+619\ (0.07)^2}$ **=153.4 =153** IFALE participants.

The sample size of the comparative group (non-IFALE participants) that were registered to join the IFALE in 2013/14 was:

$n=\frac{793}{1+793\ (0.07)^2}$ **= 162.3 = 162** non-IFALE participants

of participants were called to the nearby IFALE centers to join the survey. In all, 182 IFALE participants and all non-participants responded to the survey, giving a response rate of 99.4%.

The survey used a 5-point Likert rating scale to record the views of participants on the importance and practice of or their interest in particular areas. Participants provided answers to questions according to scales ranging from *very important* to *totally unimportant*, *very good* to *very poor*, *very high* to *very low*, and *always* to *not at all*. They also provided *yes/no* answers for factual information.

The survey addresses the empowerment dimensions, i.e. the political, economic, socio-cultural, and psychological dimensions. Specific indicators were developed for each domain as displayed in Table 5.6. Twelve qualified interviewers were trained in recording the answers from the survey participants. The survey was in Tigrigna and Amharic and pilot-tested for quality assurance. The survey instrument was distributed to each literacy center in the two regions using transport from Mekelle University. The costs of distribution were covered by the research fund from the Institutional Collaboration between Mekelle and Hawassa Universities, and the Norwegian University of Life Sciences.

Table 5.6: Domains of empowerment by indicator, measure and value

S. No	Domain	Indicator	Measure	Value
1	Political	*Importance of participation in voting*	5-Likert Scale: Very important… Totally unimportant*	Mean
		Practice of participation in voting	5-Likert Scale: Very good…Very poor**	Mean
		Interest in becoming a local election representative	5-Likert Scale: Very high…Very low***	Mean
		Participation in decision making in public institutions	5-Likert Scale: Very high….Very low	Mean
		Knows the minimum voting age	Yes/No	Percent
		Can name a political party/ political parties	Yes/No	Percent
		Do you think that you could become a local representative in an election at any level?	Yes/No	Percent
		Do you know a law on electing representatives (men/women)?	Yes/No	Percent
		Are you a member of a community organization?	Yes/No	Percent
		Do you know any community/village development committees in your area?	Yes/No	Percent
		Did you participate in community development activities over the last two years?	Yes/No	Percent
2	Economic	Importance of agricultural technologies	5-Likert Scale: Very important…Totally unimportant	Mean
		Practice of agricultural technologies	5-Likert Scale: Very good….Very poor	Mean
		Importance of measures of environmental protection	5-Likert Scale: Very important…Totally unimportant	Mean
		Practices of measures of environmental protection	5-Likert Scale: Very good….Very poor	Mean
		Importance of participation in saving	5-Likert Scale: Very important…Totally unimportant	Mean
		Practice of participation in saving	5-Likert Scale: Very good…Very poor	Mean
		Did you contribute money to an organization for productive investment and/or mutual support over the last two years?	Yes/No	Percent
		Do you have access to credit for additional income generation in your community?	Yes/No	Percent

S. No	Domain	Indicator	Measure	Value
3	Socio-Cultural	Do you think that males and females contribute equally to development?	Yes/No	Percent
		Do you know whether there are laws against gender discrimination?	Yes/No	Percent
		Do you know of laws protecting women and children?	Yes/No	Percent
		Importance of family cohesion	5-Likert Scale: Very important …Totally unimportant	Mean
		Practice of family cohesion	5-Likert Scale: Very high….Very low	Mean
		Importance of harmful traditional activities	5-Likert Scale: Very important …Totally unimportant	Mean
		Use of harmful traditional activities	5-Likert Scale: Always, often, sometimes, rarely, not at all	Mean
		Importance of reasons for wanting an additional child	5-Likert Scale: Very important …Totally unimportant	
		Practice of the reasons for wanting an additional child	5-Likert Scale: Very high…Very low	Mean
		Importance of family planning	5-Likert Scale : Very important …Totally unimportant	Mean
		Practice of family planning	5-Likert Scale: Very good…Very poor	Mean
		Importance of personal hygiene	5-Likert Scale: Very important…Totally unimportant	Mean
		Practice of personal hygiene	5-Likert Scale: Very good…Very poor	Mean
		Importance of maternal and child care	5-Likert Scale: Very important…Totally unimportant	Mean
		Practice of maternal and child care	5-Likert Scale: Very good….Very poor	Mean
		Importance of HIV/AIDS control measures	5-Likert Scale Very important …Totally unimportant	Mean
		Practice of HIV-AIDS control measures	5-Likert Scale: Very good…Very poor	Mean
		Importance of social justice activities	5-Likert Scale: Very important …Totally unimportant	Mean
		Practice of social justice activities	5-Likert Scale: Very good….Very poor	Mean
		Importance of democratic culture	5-Likert Scale: Very important …Totally unimportant	Mean
		Practice of democratic culture	5-Likert Scale: Very good…Very poor	Mean
		Importance of conflict resolution methods	5-Likert Scale: Very important…Totally unimportant	Mean
		Practice of conflict resolution methods	5-Likert Scale: Very good…Very poor	Mean
4	Psycholog-ical	Importance of self-concept	5-Likert Scale: Very important…Totally unimportant	Mean
		Practice of self-concept	5-Likert Scale: Very good…Very poor	Mean
		Importance of self-efficacy	5-Likert Scale: Very important …Totally unimportant	Mean
		Practice of self-efficacy	5-Likert Scale: Very good….Very poor	Mean

Note: *Very important (5), Important (4), Moderately important (3), Not important (2), Totally unimportant (1); **Very good (5), Good (4), Average (3), Poor (2), Very poor (1); ***Very high (5), High (4), Average (3), Low (2), Very low (1)

Note: The mean value of the each italicized indicator of empowerment was calculated from the scales of a single item, while the mean values of each unitalicized sub-theme (indicator) were calculated from the scales of two or several items considered together.

After the data collection, a code was given to each survey and all data was entered into STATA Version 14 software, edited and cleaned. Afterwards, the 5-point Likert scale self-reports of knowledge and practice, the *yes* and *no* responses, as well as the frequency responses to survey participants' sources of knowledge and practice were analyzed. Descriptive statistics (including mean, frequencies and percent) and inferential statistics (t-test and chi-square) were important data analysis tools for the self-reports. The survey data led to a deeper understanding of the likely contribution of IFALE to empowerment and SD in Ethiopia.

5.4.4 Document Analysis

The study also included systematic analysis of policy documents (ETP and NAES), the National IFALE Curriculum Framework, the IFALE facilitators' manuals, primers, as well as different kinds of field records (Table 5.7).

Table 5.7: Sources for document analysis by type and number

Type	Number	Total
Education and Training Policy (ETP); National Adult Education Strategy (NAES); National IFALE Curriculum Framework	3	8
Tigray IFALE Facilitator Manual	1	
Amhara IFALE Facilitator Manual	2	
Tigray IFALE Learner Textbook	0	
Amhara IFALE Learner Textbook	2	
IFALE related field notes, letters, pictures collected from relevant offices (MoE, Regional Bureaus, Zonal and Wereda Education offices, Collaboration Sectors, i.e. Agriculture and Rural Development, and Health, and IFALE Centers)	n/a	n/a

Document analysis is a qualitative method used to give voice, discover meaning and insights, develop understanding, and produce knowledge about a particular theme (Merriam, 1998; Bowen, 2009). The document analysis was used to explore how the government was planning to implement IFALE to contribute to sustainable development through learner empowerment.

5.5 Validity and Reliability

Throughout the process of conducting the research, issues of validity and reliability were considered. Validation is a major concern in mixed methods studies because of the difficulty to conceptualize, report and discuss it (Creswell and Clark, 2007; Venkatesh, Brown, and Bala, 2013). Teddlie and Tashakkori (2003, 2009, 2010) and Tashakkori and Teddlie (2008) have developed two important concepts for the assessment of validity in mixed methods research: *inference quality* and *data quality*. For Venkatesh et al. (2013), inference quality refers to interpretations and conclusions from mixed methods research, while data quality is the degree to which collected data (results of measurement or observation) meet the standards of validity in terms of *trustworthiness* and *reliability* or *dependability*. Inference quality includes both *design quality* and *interpretive rigor* (Teddlie and Tashakkori, 2009). According to Teddlie and Tashakkori (2009), *design quality* concerns whether mixed methods research follows commonly accepted best practices, while *interpretive rigor* is about the standards for judging the accuracy or authenticity of the conclusion. These are discussed below in the context of the dissertation.

As has appeared above, inference quality addresses issues of internal validity. *Internal validity* concerns the degree to which a study makes good inferences about a causal

relationship between two variables (Trochim, Donnelly, & Arora, 2015). This was applied in the current study in different ways. For the survey, a quasi-experimental design with randomly selected IFALE participants (treatment) and non-participants (comparison) were used in order to find answers to the research questions on IFALE's contributions to empowerment and SD in Tigray and Amhara regions. The IFALE participants (sampled literacy graduates from the IFALE centers' official lists) and non-IFALE participants (sampled non-literate individuals from the official lists of the IFALE centers who were ready to enroll in the IFALE program) were asked about their prior and current sources of knowledge and practice related to the major indicators of empowerment. None mentioned primary or other education. The data collected from the two groups allowed for causal inferences since, as illiterate small-scale farmers, they had a similar background, economic status, and access to other opportunities, but differed in terms of exposure to IFALE.

Internal validity was also addressed using construct validity and statistical validity. *Construct validity* has been ensured through the definition of the important concepts of adult literacy education, empowerment, and SD, and through the development of an analytical model based on the theory of evidence for use, literacy models, and the concepts of empowerment and SD. According to Trochim (2006), construct validity refers to the extent to which legitimate inferences can be made from the operationalization of the theoretical constructs that serve as a foundation. In this study, the theoretical constructs were translated into operational definitions and key indicators in relation to adult literacy education. For example, the political, economic, socio-cultural and psychological dimensions of empowerment relate to adult literacy education and each has specific indicators. Indirect measures or self-reports (verbal reports) by the survey participants were used as data sources for investigating IFALE's role in empowerment and SD. During the survey data collection, each participant had a detailed explanation of how to give true responses in order to avoid 'social-desirability bias'; i.e. that survey participants answer the questions to portray themselves as socially acceptable.

Statistical validity was achieved through adequate sample size and appropriate statistical data. According to Trochim et al. (2015), statistical validity refers to the extent to which conclusions drawn from a statistical test are accurate and reliable. For the quantitative data collected through the survey, two-sample t-test with equal variance was appropriate. The t-test compared the mean values of the IFALE participant group and non-participant group attached to scales of self-reports. The chi-square compared the frequency of answers to *yes* and *no* questions.

In terms of *credibility* concerning interpretations and inferences, clear explanations of all the stages of the study have been provided (who the participants were, how they were selected, how the different data sets were analyzed, and how the conclusions were drawn). The exploratory mixed design was appropriate to and consistent with the research questions. The viewpoints of the interview participants were interpreted carefully. The methods helped to capture meanings, associations, and effects with regard to the implementation and contributions of IFALE focusing on the comparison of Tigray and Amhara regions. After careful interpretation of data from the various sources, the results were compared not only within the study but also with results from previous research.

Confirmability of findings was guaranteed through triangulation in accordance with Duffy (1987). According to Torrance (2012), and Bekhet and Zauszniewski (2012), triangulation attempts to validate research findings by generating and comparing different data types and different perspectives of respondents on the phenomenon under examination. The study ensured validity by comparing the findings obtained from different respondents (e.g. policy makers, collaborators, officials, facilitators, IFALE participants and non-participants) and different sources (e.g. interviews, observations, document analysis, and survey) which helps to understand complex problems.

Transferability refers to the degree to which the findings of the research and/or initially developed concepts can be applicable to other situations and populations (Bitsch 2005; Tobin & Begley, 2004). It requires caution because of the need to consider contextual factors (Hammersley, Gomm & Foster, 2000). This study on the implementation and contributions of IFALE in Ethiopia is important in its own right but is also part of the wider research on ALE. This makes cautious transferability possible. Policy makers in Ethiopia may consider the design and outcomes of the research in the context of future policy making and implementation in the country. ALE researchers may utilize the knowledge and concepts developed in this study, for example the identification of support factors, the specific understanding of empowerment (with its dimensions and indicators), to investigate the contribution of ALE in other contexts.

In order to ensure reliability, utmost efforts have been made to explain clearly the different research processes and phases, including its rationale, the design, and the nature of the data collected. Overall, this permits inferences to be made and conclusions to be drawn.

5.6 **Ethical Issues**

All research needs to consider a range of ethical issues (Creswell, 2012). Ethical conduct of research was followed before the start of the fieldwork (Cosby, 2012; Creswell, 2012), in the field (Creswell, 2012; Silverman, 2006) and during data analysis, write up and dissemination (Creswell, 2012; Schwandt, 2007; Maykut & Morehouse, 1994). The study is registered with the Norwegian Social Science Data Services (Norsk Samfunnsvitenskapelig Datjeneste AS-NSD) (Appendix F) and was conducted with a research permit from the University of Oslo and Mekelle University (Appendices G and H). The responsible officials at the different levels of the education system gave their consent to the conduct of the research corresponding to what Creswell (2012) suggests: a researcher needs to consult with different gatekeepers at multiple levels of an organization.

The participants of the study agreed to provide information and the researcher and the interviewers explained clearly and fully the purpose of the study and the implications of a free and 'informed consent'. By obtaining permissions and clearly communicating the purpose of a study, the researcher can better make participants accept his/her presence in their own setting (Creswell, 2012). Each participant submitted an informed consent in writing (Appendix I). They were informed that all information would remain confidential and would only be used for the research purpose. During the fieldwork, utmost efforts were made to ensure that the participant involvement was as easy and pleasant as possible and that the classroom observations caused the least possible disruption to the ongoing activities. All sources of information were given codes to preserve anonymity and all information that may affect the confidentiality of the sources will be destroyed after the approval of the dissertation.

Ethical issues were also addressed during analysis and reporting. First, the data was analyzed systematically and fairly to minimize bias. The research uses language recommended in the American Psychological Association (APA) style (APA, 2010) and scholarly terms from a qualitative dictionary of terms (Schwandt, 2007). In addition, attention was paid to avoid personal bias and to voice the feelings and meanings of the participants in the qualitative data interpretations. According to Maykut and Morehouse (1994), the perspective of qualitative researchers is perhaps paradoxical: it is reflect the experiences and meaning systems of others while at the same time recognizing one's own biases and preconceptions. Equally important, utmost effort was made to employ appropriate language and research formalities since

encoding the language of research, in the view of Creswell (2012), will enhance the acceptability of the research to graduate committees, publishers and conference attendees.

Verbal or written feedback was given to all participants who requested it and reporting was done in an ethical and honest way in accordance with Creswell (2012). Copies of the dissertation will be distributed to the MoE, the regional bureaus, wereda education offices and IFALE centers that formed part of the research in order to share the results.

5.7 Conclusion

Framed within realism, the study is an exploratory, sequential comparative case study of two regions in Ethiopia, Tigray and Amhara, using a mixed methods design. It is based on extensive interviews with relevant officials and participants in different organizational settings. It also includes observations of individual participants at their homes and of the teaching and learning process in the centers. Furthermore, the potential effect of IFALE on participants—compared with non-participants—was analyzed through data from a survey designed to investigate the issues of empowerment and SD. Analysis of the curriculum materials and other documents on IFALE provided evidence on SD features in the program.

The outline of the research process has served as a basis to judge the scientific value of the study related, amongst others, to issues of reliability and validity of the data and adherence to ethical principles for the conduct of research. The huge amounts of data gathered and the complexities of the issues addressed in the research made all steps of the process challenging. The results of the data analysis appear in the following three chapters, starting with an analysis of the core strategies for the implementation of IFALE.

Chapter 6
IFALE and the Implementation of a Relevant Curriculum and an Efficient Institutional System

The analysis in this chapter of the strategies and support factors related to a relevant curriculum and an efficient institutional system is undertaken within an evidence-based policy frame. The factors for analysis are displayed in Figure 4.7 but are here organized slightly differently. They are understood as important for successful implementation of IFALE. The analysis is the foundation for the analysis of IFALE's contribution to empowerment of learners and SD in Tigray and Amhara in the next chapters.

The analysis is based on the contents of a range of ministerial policy documents, primers and facilitator manuals supplemented with information provided by policy makers, learners, facilitators and others on the relevance of the curriculum and on institutional factors. The analysis, therefore, combines the results of document analysis and relevant data from interviews, observations and the survey undertaken in 2013. It aims at highlighting similarities and differences between Amhara and Tigray regions in terms of understandings and implementation of IFALE.

Of the support factors displayed in Figure 4.7, the ones that have contextual relevance to the study are analyzed below. These include for the strategy of a relevant curriculum: primers and other materials; qualifications of officials, experts and facilitators; learning time and use of active learning methods; learner motivation and accessibility to IFALE; and learning environment. For building an institutional system, they include: policy direction; understanding of IFALE; collaboration among stakeholders; working conditions; and budget.

6.1 Implementing the Strategy of a Relevant Curriculum

6.1.1 Understanding of a Relevant Curriculum

According to the MoE (2008, p. 2), adult education programs should be problem solving and relevant to the everyday life of the learners who are directly involved in production activities. Besides, the curriculum should be based on various development packages. According to the

IFALE Curriculum Framework (MoE, 2010c, p. 3), the contents should relate to the life of the learners, improve their health and income, and eventually support the achievement of SD. The success of the strategy depends on the primers and other materials, well-trained officials, experts and facilitators, and active learning methods.

According to the interviews, regional officials and policy makers in the MoE believe that IFALE is relevant to the learners. As stated by one policy maker:

> ….the execution of a program starts from designing a strategy. This means, the current ALE program is a tool to ensure the continuity of the development strategies of the country. First, the education provision should relate to the life of the learner. Teaching to read, write and calculate should not be the only focus of the program. Second, through adult education we can build a literate and skilled workforce that can implement the development strategies and policies of the country. The IFALE material preparations carried out at the regional level originate from the growth and transformation plan of the country. The learning materials have also been prepared by involving various stakeholders, who are directly engaged in the developmental activities. It is prepared based on the livelihood and environment of the learners. This means, the agriculture sector is involved in ALE. The health sector, under ALE, will work to ensure a healthy environment and society. This is why the health minister, agriculture and rural development minister, women and social affairs minister are working as members of the technical committee and board. All of the stakeholders have a specific part in the program.
>
> ….the relevance of education derives from the needs of the adult learners. It should also focus on the development strategy of adult learners. …We decided that the materials should build on the common interest of the learner and the development strategies of the country. This is how it is delivered. The program is provided in the first language of the learners….When we see the methodology, as it is stated in the implementation guideline, facilitators carry out the learning process based on the principles of andragogy and the interest of the participants. Adult learners already have some knowledge when they come to join the program. Thus, the program considers their interest, bearing their psychology in mind, respecting the culture and tradition of the area. This is not a teaching learning process; it is rather learning from each other. Unlike the traditional method, learners come up with the topic, discuss and solve problems (policy maker interviewee 2, April 2013).

According to the interview, the preparation of the NAES, the National IFALE Curriculum Framework and the IFALE teaching materials should take into consideration the interests of the learners and the relevant stakeholders. The curricula should include teaching of the most important development packages in addition to basic literacy and numeracy and traditional teaching methodologies should be replaced by active learning methods. According to the survey results, respondents in Tigray rated the relevance of IFALE to their day-to-day realities and needs of the community as nearly very good (mean=4.67) while in Amhara it was found to be almost good (mean=4.18) (Appendix E, survey question 82.1). The analysis

of primers and facilitator manuals showed that contents from the government's development packages which are believed to improve livelihoods are indeed included, for example beekeeping, dairy farming, fruit and vegetable production, and poultry (refer 8.1.1). However, teaching practices in the literacy centers during observations showed that traditional lecture, rather than participatory methods were predominant and that learners were in practice not encouraged to reflect their ideas and propose topics for learning.

6.1.2 Primers and Other Materials

In terms of curriculum materials, there were differences between the two regions. In Tigray it was restricted to the preparation of the facilitator manual in the Tigrigna language, while in Amhara both primers and facilitator manuals were developed in Amharic. In addition to the lack of primers in Tigray, it appeared from one of the observations undertaken in center G that IFALE learners had no other supporting materials as well, such as exercise books and pens. The facilitator instead distributed paper for the learners to write notes. By contrast, in Amhara learners had primers, exercise books, and pens or pencils. This is likely to make IFALE classes in Amhara more effective than in Tigray and may contribute to empowering learners beyond the mastery of basic literacy and numeracy.

6.1.3 Qualification of Officials, Experts and Facilitators

In terms of qualifications, interviews with bureau officials showed that there are clear differences between the two regions. The head of the Tigray Bureau of Education (TBE) and his deputy have no background in (adult) education and no one was assigned to specifically administer IFALE neither in the education bureau nor in the wereda education offices. Coordination and management of IFALE was instead an additional duty carried out by officials or experts employed in the formal education system at different levels.

In Amhara, there were IFALE positions in the regional education bureau and in the weredas. This helped to plan, execute, monitor and evaluate IFALE more effectively. Both the head and the deputy of the Amhara Bureau of Education (ABE) had master's degrees in relevant fields of education. The bureau has an IFALE program team consisting of three members with master's degrees in related education fields—of which one is in adult and lifelong learning. In addition, each of the weredas in Amhara had at least two IFALE experts. One of the two selected weredas had three IFALE experts, one with a bachelor's degree in education, who coordinated the other two members that were pursuing their diploma level training in adult education through the summer in-service program.

A wereda IFALE expert from Amhara stated:

> The Curriculum, Assessment and Evaluation Division in the education office of the wereda is led by one coordinator. Within this division, three of seven staff members are adult literacy experts. One has a bachelor degree in psychology and the two of us are pursuing our education in adult education in the diploma program. The government has given attention to adult literacy. We put this into action, considering the adult literacy education as one program (expert interview 1 in Amhara, May 2013).

This, however, also implies that some IFALE officials and experts in the Amhara region and weredas had no specialized training in adult education.

In terms of the qualification of facilitators there were more similarities than differences between the two regions since almost all were recruited for their jobs after they had completed grade 10. They received specialized training in teaching adults focusing on ways of motivating people to join the IFALE program, adult learners and their behavior, lesson planning, and methods of teaching. The length of this training varied somewhat in the two regions. In Amhara, six of the eight facilitators had received 10 days of training (in Flaqhit town by Meqhet Wereda IFALE experts). In Tigray, 7 out of 8 facilitators had received three weeks to a month's training (one week training by supervisors and other officials in the weredas and two to three weeks at Abbiyi-Addi Teacher Training College).[17]

The qualifications of the IFALE teachers are somewhat inadequate in both regions, but more so in Tigray than Amhara. In Amhara, primary school teachers do the actual teaching in the IFALE sessions even if they are trained in teaching children. They are occasionally supplemented with selected agricultural and health experts. The facilitator and the primary school principal coordinate the IFALE program in each center and the facilitator invites primary school teachers and agricultural and health extension workers to teach IFALE learners. A wereda IFALE expert from the region said:

> The role of the facilitator is to facilitate. Based on the choice of the adult learners, the facilitator invites a particular professional and arranges class schedules…. After the lesson is over, the facilitator may fill a gap by covering some points or explain things to latecomers (IFALE expert 1, Amhara, May 2013).

The facilitator from the same region said:

> I work as a facilitator, not as a teacher. I do not teach. School teachers, health and agriculture experts should take turns teaching. I attend the session but I only teach in the absence of the invited person. The facilitator's job is to check learners' attendance and invite teachers (facilitator interviewee 3, Amhara, May 2013).

[17] One of the new facilitators had completed grade 12 and had received no training in teaching adults.

The facilitator's main duty is to coordinate the program, such as setting the time plan, identifying and inviting relevant professionals, and providing supplementary teaching to the learners.

In contrast, in Tigray the facilitator conducts the teaching in each session, besides inviting professionals from other sectors. It appeared from the observations and interviews with the facilitators and school principals that professionals from other sectors never actually came to teach despite the invitations. In the absence of the facilitator, it is school teachers who teach the IFALE sessions.

6.1.4 Use of Active Learning Methods

The analysis of active learning methods includes time allotment for each session and the teaching and learning methods. According to the observation results, the plan to teach 2 hours per session and three times a week (6 hours per week) was not followed in any of the regions, although the sessions in Amhara were closer to the planned time than in Tigray. The use of active learning methods was limited in both regions.

Table 6.1: Time allotted by method in IFALE classes in Tigray and Amhara by center

Methods of teaching and learning	**IFALE centers in Tigray (centers A-H) and time used for the method**								**IFALE centers in Amhara (centers A-H) and time used for the method**							
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
Brainstorming	3'	0	10'	7'	0	15'	0	0	0	0	0	0	5'	0	0	0
Group discussion	40'	0	0	0	0	0	8'	0	4'	0	5'	3'	0	7'	15'	0
Pair work	0	0	0	0	5'	0	0	0	0	0	0	0	0	3'	0	0
Gapped lecture	0	0	30'	10'	35'	25'	10'	0	25'	0	0	35'	30'	0	0	0
Lecture (only teacher talking)	0	37'	0	0	0	0	0	37'	0	35'	55'*	0	20'	25'	18'*	35'
Question and answer	0	2'	30'	30'	0	25'	50'	3'	25'	10'	10'	50'	30'	0	26'	2'
Independent work	0	0	0	13'	30'	40'	0	0	0	0	0	5'	20'	4'	0	0
Problem solving	0	0	0	0	0	0	0	0	15'	0	0	0	0	0	0	0
Reflection	0	2'	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total session time in each center	43'	41'	1hr & 10'	1hr	1hr & 10'	1 hr & 45'	1hr & 8'	40'	1hr & 9'	45'	1hr & 10'	1hr & 33'	1 hr & 45'	39'	59'	37'

Note: *The facilitator read aloud from the textbook and learners listened
Source: Session Observations (April & May 2013)

In Tigray, the session time varied from 43 minutes (center A), to one hour (center D), and to 1 hour 45 minutes (center F). In Amhara, the time ranged from 1 hour 45 minutes (center E), to 1 hour 9 minutes (center A) to 37 minutes (center H) (Table 6.1). The predominant methods

were question and answer, gapped lecture[18], independent work and group discussions. The traditional lecture method was also widely used, especially in Amhara (Table 6.1).

Despite the clearly stated direction for a multi-method approach, classroom observation results show that this is not the case. As appears in Table 6.1, facilitators or teachers generally used the same kinds of methods which did not include most of the active learning methods, for example buzz group, visits, role play, case study, demonstration, simulation, presentation, debate, cooperative work, matching exercises, drawing and picture, picture analysis, pyramiding,[19] experiment, experience sharing, drama and game. Furthermore, the primers in Amhara and the facilitator manuals in both regions do not underline the variety of methods/approaches but mostly recommend group discussion. This may affect the capacity of learners for independent thinking and reflection.

6.1.5 Learner Motivation and Access to IFALE

As to learner motivation, statistical data on enrollment and drop out collected at the centers in both regions indicate a high dropout rate over two years (2011/12 and 2012/13), namely 36% in Tigray and 28% in Amhara (Table 6.2). The dropout rate in Tigray is below the universally acceptable level reported by Cameron and Cameron (2005), i.e. 25-30% while that of Amhara is within this acceptable range.

Table 6.2: Enrollment, completion, drop out and dropout rate of IFALE learners in Tigray and Amhara, 2011/12-2012/13

Region	Enrollment 2011/12	Completion 2012/13	Drop outs (2011/12 and 2012/13)	Dropout rate, %
Tigray	554	354	200	36
Amhara	366	265	101	28
Total	920	619	301	33

Source: Records in the Centers (April & May 2013)

Session observations in Tigray showed that only half of the learners enrolled in year II of the IFALE program actually attended the observed sessions. According to interview and lesson observations results, learners did not participate in decisions about why, how, where and when classes should be conducted. This may explain the low interest of the IFALE learners. In contrast, in Amhara most IFALE learners enrolled in year II attended the session, many learners were highly motivated and had been involved in decisions on the time and place of

[18] Gapped lecture is a type of lecture that is interspersed with other types of activities, e.g. work in pairs.

[19] In pyramiding, each learner in a class first works on an issue for five minutes to collect his/her thoughts. Then the learners work on the issue for five to ten minutes in pairs. After that, they work in small groups and finally discuss the issue as a class. Such activities are often accompanied by detailed instructions and briefings.

the learning, and had access to primers. They indicated that having the primers encouraged them to study outside of the classroom.

In terms of access, there are IFALE centers in most villages of the weredas in both regions and potential learners can join IFALE quite easily. In the survey, IFALE participants in Tigray rated access as *very good* (mean=4.61) while in Amhara it was rated as *good* (mean=4.05). The Educational Statistics Annual Abstracts of the MoE (2011, 2012, 2013, 2015, 2016) show that enrollments in adult and non-formal basic education, including IFALE (15 years and above), has increased over the years in all regions in the country during ESDP IV, 2010/11-2014/15 (Table 6.3).

Table 6.3: Adult and non-formal basic education enrollments during ESDP IV, 2010/11-2014/15

Area	2010/11	2011/12	2012/13	2013/14	2014/15
Tigray	77 M*=20 F**=57	93,780 M=54,192 F=39,588	173,972 M=95,942 F=78,030	276,217 M=143,251 F=132,966	504,757 M=234,672 F=270,085
Amhara	1,644 M=1,133 F=511	224,651 M=168,219 F=56,432	1,046,623 M=741,755 F=304,868	2,519,998 M=1,575,365 F= 944,633	2,602,896 M=1,619,239 F=983,657
All regions, including Tigray and Amhara	334,410 M=197,843 F=136,567	2,092,234 M=1,281,951 F=810,283	3,415,776 M=2,116, 620 F=1,299,156	6,506,310 M=3,722,306 F=2,784,004	5,990,409 M=3,427,604 F=2,562,805

Source: MoE Educational Statistics Annual Abstract (September 2011; September 2012; November 2013; June 2015; July 2016)
Key:*M=Male; F**=Female

Enrollment in adult and non-formal basic education increased by 95% in the country as a whole from 2010/11 to 2014/15. During the same period, enrollment in Tigray and Amhara increased by almost 100%. Enrollment in IFALE has led to a rise in the adult literacy rate in Ethiopia from 39% in 2007 to 49% in 2015 (UNESCO, 2015; World Bank, 2016b).

6.1.6 Appropriate Environment and Time for Learning

Lesson observations and interview results indicate that the only learning facility in the IFALE centers of the two regions is the chalkboard. There were no charts, pictures or models or other means that could help enhance learning.

IFALE classes are conducted under different conditions and times in the two regions. Only two of the eight IFALE sessions observed in Tigray took place in a primary school classroom, while two sessions were under trees and four in a *dass*[20] that could not properly protect the learners from the sun or the wind (Figure 6.1). In one center (center C), the IFALE sessions

[20] A dass is a shelter made of wood and branches of trees used as a classroom for learning. In dass classes, stones are often seats.

were in a *dass* prepared inside the primary school compound even though the school classrooms were free. Two IFALE sessions (in centers B and G) were carried out after the learners finished the day's demanding terracing duty. In general, the teaching and learning in Tigray was not conducted in a conducive environment.

Figure 6.1: IFALE session (Center G) in Tigray conducted under trees after a terracing chore
Source: Session Observations (April 2013)

In Amhara, IFALE classes were well planned and taught in well-equipped formal primary school classrooms. This was done either before (in the early morning between 6 am and 8 am) or after (late in the afternoon between 5.30 pm and 8 pm) the regular teaching program of the primary schools (Figure 6.2). The learning environment in Amhara was therefore more comfortable for the learners.

Figure 6.2: IFALE session in Amhara (Center A) conducted in a classroom
Source: Session Observations (May 2013)

6.1.7 Summary

The findings make clear that the strategy of implementing a relevant curriculum was unsuccessful in Tigray, but partly successful in Amhara. Of the support factors for the strategy, only the facilitators' manual and participants' access to the IFALE program (i.e. 2 of 9) were at work. By contrast, in Amhara, most of the support factors (6 of 9) were present, namely provision of primers and facilitators manuals, qualified officials and experts, motivated learners, appropriate environment and time for learning, and access to IFALE. Absent in the strategy were qualified facilitators, use of active teaching and learning methods, and adequate learning aids/facilities.

6.2 The Strategy of Building an Efficient Institutional System

6.2.1 Understanding of an Efficient Institutional System

An efficient institutional system often requires a clear organizational structure (Ingram, 2018; Nedović & Božinović, 2013). In the case of IFALE, the organizational set up runs from the MoE down to the IFALE center. The Coordination Office of the Department of Non-Formal

and Adult Education in the MoE provides leadership, coordination and technical assistance to all levels of the IFALE system. It has 5 experts and 4 support staff. In accordance with the NAES, partner ministries signed a memorandum of understanding to ensure their participation in IFALE. A National Adult Education Board was established in 2008 which in 2012 produced a guideline for the formation of adult education boards and technical committees at regional and wereda levels as well. All regions have received monitoring and reporting templates. Evaluation materials and instruments are based on quality standards and outcomes for IFALE.

6.2.2 Leadership

In contrast to the stipulation in the guidelines of the National Adult Education Board, Tigray has no functioning regional IFALE board or technical committee representing the different sectors that were to be engaged in the implementation of the program. IFALE also has no independent institutional system or separate organizational structure in the regional education bureau and the weredas. This has prevented monitoring and evaluation of the programs although the reporting system is operational at the federal level. Nevertheless, a provisional team from the relevant sectors produced the IFALE facilitator manual in 2010.

In contrast, in Amhara, a regional adult education board headed by the Vice-President of the region and a regional adult education technical committee has been set up and an IFALE organizational system was set up from the region to the center. The existence of this system has facilitated monitoring, evaluation and reporting in the region. In addition, representatives from all relevant sectors prepared the primers and facilitator manuals that were distributed in 2012/13. At the wereda and kebele levels, adult education boards and technical committees were not fully operational until November 2013. This means that there was more inclusion of other partners in IFALE at the regional than at the wereda and kebele levels.

6.2.3 Staff Motivation

The issue of staff motivation was examined based on the perceptions of IFALE officials and school principals during interviews. In Tigray, education personnel in the regional bureau, the weredas and the centers (school teachers and school principals) were not strongly motivated to participate in IFALE activities since it was an additional duty to their work in formal education. They lacked incentives. In contrast, in Amhara experts and officials are fully engaged in implementing, monitoring, evaluating and reporting on IFALE. Their main concern was that the collaborating institutions did not participate as planned in the

implementation of IFALE. In contrast, the voluntary school teachers who conducted IFALE sessions mostly lacked incentives for participating in IFALE.

The facilitators in both regions regarded both their training and their salary as inadequate. In Tigray, they are paid 636 birr (about 23 USD) a month while in Amhara they receive a monthly salary of 500 birr (about 18 USD). This is very low compared to the Ethiopian primary school teacher's monthly salary when first employed, i.e. 1719 birr (about 62.80 USD). This, according to the wereda education officials, leads to a high turnover of facilitators who leave IFALE when they find better paying jobs.

6.2.4 Policy Direction and Understanding of IFALE

There is no clear definition of adult and non-formal education or IFALE in the ETP which was published in 1994 (MoE, 1994). According to the newly introduced NAES (MoE, 2008), the focus of adult education should be on integrated functional adult education and a number of documents have been produced to implement the program effectively.

According to the interviews, officials at the different levels in Tigray had no shared understanding of IFALE. Policy maker interviewee 1 and regional and wereda official interviewees 1 and 2 in Tigray stated that IFALE was important to teach farmers in order to support Ethiopia to become a middle-income country by 2025. Nevertheless, many high-ranking officials could not explain the essence of this. One official in the wereda and two facilitators referred to IFALE as an 'illiteracy eradication program'. This may be because they had not been informed of its meaning, mission, values and principles. Officials and experts generally considered IFALE as an additional duty. In the absence of officials who clearly understand the strategic direction of adult education, IFALE may not adequately prepare rural learners for improved livelihoods or empower them to support SD.

In contrast, education and IFALE officials in the Amhara regional education bureau and wereda education offices explained in detail what IFALE is, its assumptions, values, and principles, why it is needed, and how it could be implemented. For example, one regional education official in Amhara stated:

> In this program everything is integrated. All shareholders of the program must be integrated to bring the desired change. The government, society, sector bureaus, and participants have their share of responsibility for the success of the program. The program is integrated in terms of responsibility, content and philosophy. The content is linked with life skills of the learner. As we teach the life skills, reading, writing and numeracy skills are integrated. The owner of the program is the society. Therefore,

> every stakeholder should be responsible for the development of the program. There is integration among different sectors, i.e. health, agriculture, small scale business, women's affairs, etc. The principle is that the program is governed by integration. It is also flexible: the participant can learn at any time they prefer and anything they want. Unlike formal education, it does not have opening and closing seasons. The learners can learn at any time based on their interests, be it during the day, night, summer, or winter, or before or after working hours (Regional official interviewee 2, Amhara, May 2013).

Another regional official claims:

> …We assume that the development strategies will be internalized by the community. We assume that there is community mobilization and the awareness of people from regional to kebele levels. There is a bid for community mobilization and awareness raising (Regional official interviewee 2, Amhara, May 2013)

As one wereda educational official reports, the main objective of the ALE is to produce farmers who know their environment, are economically independent and healthy, can read and write, and have a modern life style (Wereda official interview 1, Amhara, May 2013).

These are examples of thorough knowledge of IFALE, perhaps because of the officials' background in education and adult education, and the fact that they are full-time employed to run the program. Their knowledge is expected to have a bearing on the provision of the IFALE program.

6.2.5 Collaboration among Stakeholders

Wereda educational officials and IFALE center coordinators in both regions reported that the contribution of other sectors to the implementation of IFALE was not in place in 2013. A wereda educational official from Tigray stated:

> IFALE was planned to be implemented through the joint efforts of the education, the agricultural and rural development, health and other sectors, but the sectors do not consider it as part of their duty and responsibility. They have left the duty to the education sector. It is the education officials, the supervisors, the principals of the schools hosting the centers and the facilitators who currently carry out the IFALE activities. None of the other sectors is working together with us in the teaching and learning process of IFALE (Wereda official interviewee 2, Tigray, May 2013).

A regional IFALE team leader from Amhara similarly reported:

> Each sector and board members are to share the responsibility. I remember, the chairperson of the board once told each member to prepare a checklist and assess what had been done at the grassroots level and report on it. However, this was not fully done. It is inconsistent. It is the education sector that works responsibly. The board members are not fully committed to take responsibility. There is a gap. Nevertheless, it is a good beginning and should be strengthened (Regional IFALE official interviewee, Amhara, May 2013).

This means that although the curriculum contents have been integrated, the teaching is not done as planned by involving other sectors. In November 2013, the offices of agriculture and rural development as well as health sent letters to the extension workers at grassroots level instructing them to perform their duty of facilitating relevant topics in IFALE sessions (Appendix J and K). This may affect IFALE in the future.

6.2.6 Working Conditions

The working conditions in the two regions differ. In Tigray, the regional and wereda officers do not have enough time to execute IFALE activities because of their main duty in formal education. Besides, the learning environment is not ideal with facilitators teaching in *dass* classes and having to move the chalkboard from their home every time they teach. There are no tables or chairs, charts, pictures or other learning materials. This probably has a negative impact on the quality of learning in IFALE. In Amhara, officials and experts have clear job descriptions and carry out IFALE activities in primary school classrooms with benches, chairs and tables, probably enhancing learning outcomes.

6.2.7 Budget

The MoE has allocated a budget of about 12 billion birr (approximately USD 545 million) for IFALE and a total of USD 20 per learner per year in ESDP IV (MoE, 2010b). This accounts for almost 9% of the total budget for education at the national level and increased significantly from ESDP III when it was only 0.5% of the total education budget.

The rough budget allocated by the government amounts to approximately 3 USD per participant per year in Tigray. Tigray is, thus, severely lacking in terms of the planned annual budget of 20% per participant. This may indicate poor commitment concerning the IFALE program on behalf of the regional government and education bureau. Furthermore, the money distributed by the government was not spent on publication of primers, teaching materials and other important expenses during ESDP IV, but some money was spent on training of facilitators and some officials which, according to the interviews, was insufficient. It was a local NGO, the Relief Society of Tigray (REST), which instead supported the production of the facilitators' manual and sponsored the salary of two out of six facilitators in the centers.

In Amhara, the government budget amounted to about 16 USD per learner per year which was closer than in Tigray to the government's annual budget plan for each learner, i.e. 20 USD. A budget of about 32 million birr (approximately USD 1.4 million) was allocated for

the preparation and printing of primers and facilitator manuals during ESDP IV. The regional government also covered the salary of all regional and wereda officials and experts, facilitators, and the costs of training the experts for a diploma in adult and non-formal education. The budget allotted for IFALE in Amhara, though not enough to fulfill all the basic requirements, shows higher commitment to take the program forward than in Tigray.

6.2.8 Summary

The strategy of building an efficient institutional system was unsuccessful in Tigray, but partly successful in Amhara. All the support factors of the strategy (8) were practically absent in Tigray while in Amhara all support factors but three were at work. As the results show, strong leadership, motivated officials and experts, good working conditions, adequate budget and shared understanding of IFALE among officials and experts were in place in Amhara while a clear policy frame, motivated facilitators, and collaboration among stakeholders were missing.

6.3 IFALE Participants' Proposed Solutions

According to the survey results, IFALE participants in Tigray and Amhara suggested five important solutions for the problems related to the implementation of IFALE (refer Appendix E, survey question 84). The majority of the IFALE participants in Tigray proposed the following ones: an adequate budget (90%); increased participation of women (80%); more training of facilitators (76%), primers (66%); and overcoming attitudinal problems (self-defeating beliefs) of participants (such as 'I am too old to go to an IFALE center') (47%). IFALE participants in Amhara identified largely the same solutions although with a difference in relative importance: an adequate budget (67%); increased participation of women (62%); primers (61%); training of facilitators (56%); and commitment of leaders of the sector (55%).

Thus, in the views of the IFALE participants in both regions, increasing the IFALE budget is a key factor to improve the implementation of the IFALE policy. The money should be spent on recruiting and training officials/experts and facilitators who play a key role in moving the IFALE policy forward and on material supplies.

6.4 Conclusion

The implementation of the strategies of a relevant curriculum and an efficient institutional system was unsuccessful in Tigray but partly successful in Amhara (Tables 6.4 and 6.5). In

Tigray, most of the support factors for the strategy of a relevant curriculum (7 of 9) were not at work (Table 6.4). The facilitators' manual was prepared but the primer and other supporting materials, and teaching and learning aids were missing. Active learning methods were not in use. The learning environment was often inappropriate. This led to low motivation and dropout amongst the learners. The region has no staff specifically assigned to the program. The bureau head and his deputy have no specific background in education or adult education. IFALE was an additional responsibility to the work in formal education for which particularly the wereda officials and school principals received neither additional training nor appropriate remuneration. In short, the absence of most of the support factors influenced the implementation of IFALE in Tigray.

Table 6.4: Support factors for the strategy of a relevant curriculum

Support factors	Support factors at work	
	Tigray	Amhara
	Yes /No	Yes /No
Primers	**X**	√
Facilitator manual(s)	√	√
Qualified officials & experts	**X**	√
Qualified facilitators	**X**	**X**
Use of active learning methods	**X**	**X**
Learners' motivation	**X**	√
Access to IFALE	√	√
Adequate learning aids/facilities	**X**	**X**
Appropriate environment and time for learning	**X**	√
Implementation of the strategy	**Unsuccessful**	**Partly successful**

Key: Yes:√; No:X

In Amhara, there was more attention to the strategy and it was partly successful (Table 6.4). Most of the support factors are at work (6 of 9). The learners had primers and the facilitators had manuals. IFALE centers shared classrooms and other resources with primary schools. The education bureau head and his deputies as well as IFALE officials and experts could lead the program partly because of their background in education although some officials and experts requested further training. IFALE was easily accessible since teaching took place in nearby primary schools. The learners were generally motivated to learn because of the provision of primers, the learning environment and the timing of the sessions. The dropout rate (28%) was lower than in Tigray (36%) and within the internationally suggested acceptable range for dropout, i.e. 25%-30% (Cameron & Cameron, 2005). However, school teachers who act as facilitators need training in adult education and the use of active learning methods.

The implementation of the strategy of building an efficient institutional system was unsuccessful in Tigray but partly successful in Amhara (Table 6.5). NAES and the IFALE Curriculum Framework have a clear strategic direction, but no policy for IFALE. However,

the IFALE officials at regional and wereda levels lack a shared understanding of IFALE in theoretical and practical terms. The regional and wereda IFALE board and technical committees representing all the collaborating sectors were not functioning although a provisional committee representing the relevant sectors had prepared the facilitator's manual. The TBE allocated no budget for textbook preparation, training of facilitators and other important service provisions. The approximate total annual budget for each learner was three USD. In brief, the strategy of building an efficient IFALE institutional system in Tigray was deficient in all respects (0 of 8) which impacted implementation.

Table 6.5: Support factors for the strategy of an efficient institutional system

Support factors	Support factor at work	
	Tigray	Amhara
	Yes /No	Yes /No
Strong leadership roles	**X**	√
Motivated officials and experts	**X**	√
Motivated facilitators	**X**	**X**
Clear policy direction	**X**	**X**
Shared understanding of IFALE	**X**	√
Collaboration among stakeholders	**X**	**X**
Good working condition	**X**	√
Adequate budget	**X**	√
Implementation of the strategy	**Unsuccessful**	**Partly successful**

Key: Yes: √; No: X.

In Amhara, most of the vital supporting factors for the strategy of building an efficient IFALE institutional system were at work (5 of 8) and the strategy was therefore partly successful. IFALE officials and experts in the regional and wereda educational offices coordinated activities at regional and wereda levels based on NAES but there was no clear adult literacy policy frame. Working conditions were generally good and staff was motivated to execute IFALE activities despite lack of support from the collaborating sectors in teaching and learning and the poor pay for facilitators. IFALE officials and experts had a shared understanding of the essence of adult education and of IFALE. There was a budget for staffing, textbook and facilitator manual preparation, and for training of experts and facilitators. The total annual budget for each learner was approximately 16 USD which is closer to the planned budget (20 USD) than in Tigray. Initiatives to involve collaborators were in progress in November 2013.

It seems clear, therefore, that there are deficiencies in terms of implementation of IFALE in both regions, but more so in Tigray than in Amhara. Whether IFALE nevertheless managed to promote some degree of empowerment of learners is analyzed in Chapter 7.

Chapter 7
IFALE's Contribution to Learner Empowerment

This chapter focuses on the empowerment that the rural-based IFALE learners in Tigray and Amhara may have gained from IFALE. It is based on the self-reports of the survey participants, occasionally supported by interviews with education officials and/or IFALE participants in the two regions. The chapter explores the contributions IFALE may have made to rural adult learners' political, economic, socio-cultural and psychological empowerment by comparing them with rural adults who had not been exposed to IFALE. Conclusions are made based on an analysis of each indicator, and on a consolidated analysis of each empowerment dimension based on all its indicators. In the survey, each indicator is a scale or a yes/no item that has equal value in representing the dimensions of empowerment.

7.1 IFALE and Political Empowerment

As underlined by Stromquist (2009), the political dimension of empowerment addresses adult learners' capacity to involve themselves in local institutions and policy-making in their communities and to help change institutions and policies. In this study, the political dimension of empowerment refers to the IFALE participants' knowledge and practice of participation in political affairs and local institutions or citizenship education gained from IFALE. The indicators of political empowerment include: knowledge of importance and practice of participation in voting during elections; knowledge of voting age, political parties and the national policy on electing representatives; membership in a union/community development organization; engagement in community self-help initiatives; and community level decision-making.

7.1.1 Importance and Practice of Participation in Voting

According to Sharma (2016), good citizens are supposed to vote during elections. In line with this, participation in an election is part of the IFALE curriculum as will be discussed later (refer 8.1.1). The responses of the survey participants to the importance and their practice of participating in voting appear in Table 7.1 (Appendix E, Survey questions 11 & 12). IFALE participants and non-participants in Tigray (mean=4.98 & 4.93, respectively) and Amhara (mean=4.65 & 4.57 respectively) rated the importance of their participation in voting to be

almost *very important*. The difference between the two groups in both regions was statistically insignificant. From the results, it appears that attending IFALE had no significant contribution to IFALE participants' knowledge of the importance of participation in voting.

In terms of practice of voting, IFALE participants (mean=4.80) and non-participants (mean=4.62) in Tigray rated this as almost *very good*. The difference was statistically insignificant, indicating that IFALE might not have contributed to IFALE participants' voting practice. In contrast, IFALE participants (mean=4.30) and non-participants (mean=3.99) in Amhara reported their practice of voting as approximately *good.* The difference between the mean values was statistically significant. In this case, IFALE seems to have enabled adult participants to elect representatives for political leadership in local councils which may have contributed to participants' capability for control of their environment (Nussbaum, 2000) through election of their representatives.

As regards the importance of participation in voting, the mean values of the IFALE participants in Tigray (mean=4.98) were higher than those in Amhara (mean=4.65). Likewise, the mean values of non-IFALE participants in Tigray (mean=4.93) was higher than in Amhara (mean=4.57). In these cases, the difference between the mean values was statistically significant. The mean values for voting practice by IFALE participants in Tigray (mean=4.80) and Amhara (mean=4.30) were respectively very good and average, and those by non-IFALE participants in Tigray (mean=4.62) and Amhara (mean=3.99) were nearly *very good* and *average*, respectively. In both comparisons, the differences were statistically significant. This may suggest that other external factors, such as local leaders and media, have made more important contributions in Tigray than in Amhara.

7.1.2 Interest in Becoming an Elected Representative

As regards each survey participant's interest in becoming an elected representative (Table 7.1; Appendix E, survey question 13), IFALE participants in Tigray rated it *very high* (mean=3.56) while for non-participants it was *average* (mean=2.89). In Amhara, IFALE participants' interest was almost *average* (mean=2.67) while that of non-participants was *low* (mean=2.24). The difference between the mean values in each region was statistically significant. The higher mean values for IFALE participants in the two regions may result from the role IFALE has played since the curriculum contents include issues of democracy and rule of law, nationalism, election and community participation. This probably helped IFALE participants develop their interest in becoming an elected representative.

IFALE participants in Tigray showed almost *high* interest (mean=3.56) in becoming an elected local representative. In Amhara the interest was nearly *average* (mean=2.67). Non-IFALE participants in Tigray (mean=2.89) and Amhara (mean=2.24) had nearly *average* and *low* interest in being an elected local representative. The difference between the mean values of the two groups in each region was statistically significant. In each region, IFALE participants, therefore, appear to show significantly higher interest in being an elected representative than the non-participants. This is probably because of the efforts of the IFALE program.

Table 7.1: Self-reported political empowerment gains of survey participants by mean and statistical significance

S. No.	Indicator	Region	Group	Mean	Statistical significance of the difference based on two-sample t-test[21] with equal variance (t) & probability value (pr)[22]	
					T-tests for comparing IFALE participants and non-participants in each region	T-tests for regional differences, conducted separately for each group
1	Importance of participation in voting	Tigray	IFALE participants	4.98	t=1.421 pr=0.157	IFALE participants t=5.215***pr=0.000
			Non-participants	4.93		
		Amhara	IFALE participants	4.65	t=0.901 pr=0.369	Non-participants t=5.231*** pr=0.000
			Non-participants	4.57		
	Practice of participation in voting	Tigray	IFALE participants	4.80	t=1.662* pr=0.098	IFALE participants t=4.248***pr=0.000
			Non-participants	4.62		
		Amhara	IFALE participants	4.30	t=2.008** pr=0.046	Non-participants t=4.271*** pr=0.000
			Non-participants	3.99		
2	Interest in Becoming an elected representative	Tigray	IFALE participants	3.56	t=3.318*** pr=0.001	IFALE participants t=4.703*** pr=0.000
			Non-participants	2.89		
		Amhara	IFALE participants	2.67	t=2.319** pr=0.022	Non-participants t=3.288*** pr=0.001
			Non-participants	2.24		
3	Participation in decision-making in public institutions	Tigray	IFALE participants	3.66	t=2.508** pr=0.013	IFALE participants t=0.158 pr =8.74
			Non-participants	3.21		
		Amhara	IFALE participants	3.63	t=-2.740*** pr=0.007	Non-participants t=-5.246*** pr=0.000
			Non-participants	4.09		

***=level of significance at 1%, ** level of significance at 5 % and *level of significant at 10%

7.1.3 Participation in Decision Making in Public Institutions

IFALE participants in Tigray rated the extent of their participation in decision making in public institutions (Table 7.1; Appendix E, survey question 14) to be nearly *high* (mean=3.66) while non-IFALE participants rated it *average* (mean=3.21). The difference between the mean values of the two groups was statistically significant. Interviews with regional, zonal and wereda education officials, and with IFALE participants revealed that IFALE participants

[21] The t-static or t-test (t) is the ratio of the mean of the difference to the standard error of the difference. In a t-test the level of significance corresponding to the difference between two mean values can be put as follows: when t≥ 2.58 or t≤-2.58, the significance level is at 1% level, when t= between [1.96, 2.58**)** or [-1.96,-2.58**)**, the significance is at 5% level, when t= between [1.65, 1.96**)** & [-1.65, -1.96**)**, the significance is at 10% level, but when t≤ 1.64 or ≥-1.64, the difference is insignificant.

[22] Probability value (pr) is the probability value of getting a difference of this size or more by pure chance.

who had finished year one and had started to read and write were encouraged to be involved in local institutions, such as schools, as parental representatives and as members of local administration councils. This might be the reason for the higher mean value by IFALE participants. This is in line with Burchfield et al. (2002a) who report that women in Nepal who participate in literacy programs become more involved in community groups and community decisions.

In the case of Amhara, IFALE participants (mean=3.63) and non-participants (mean=4.09) regarded their participation in decisions as *high*. The difference between the mean values was statistically significant. This probably implies that the non-IFALE particpants were more involved in decision-making positions.

The extent of participation in decision making in public institutions by IFALE participants in Tigray (mean=3.66) and in Amhara (mean=3.63) was almost *high.* The difference was statistically insignificant. Participation in decision making in public institutions by non-IFALE participants in Tigray (mean=3.21) was *average* while for the similar group in Amhara (mean=4.09) it was *high*. The difference between the two groups was statistically significant in favor of the group in Amhara.

7.1.4 Role in Local 2013 Election

As indicated in Table 7.2, survey participants reported on the roles they played during the election for the wereda and kebele councils in 2013 (Appendix E, survey questions 16 & 17). In Tigray, 83 IFALE participants (93%) and 86 non-participants (89%) were voters while in Amhara the number was 81 IFALE participants (87%) and 76 non-participants (78%). IFALE may have played a crucial role in making participants cast their vote in both regions, but less so in Amhara.

Table 7.2: Survey participants' self-reported participation in the local election in 2013 by frequency and percent

S. No.	Participation in election	Tigray		Amhara	
		Number of IFALE participants involved	Number of non-participants involved	Number of IFALE participants involved	Number of non-participants involved
1	Candidate for wereda/kebele assembly	0	0	0	0
2	Election observer	3 (3%)	3 (3%)	2 (2%)	2 (2%)
3	Election facilitator/officer	17 (19%)	8 (8%)	5 (5%)	6 (6%)
4	Voter	83 (93%)	86 (89%)	81 (87%)	76 (78%)

A comparison of IFALE participants in Tigray and Amhara regions shows that only 17 (19%) and five (5%), respectively were election facilitators/officers, fewer were election observers, and none were candidates for the assemblies.

7.1.5 Knowledge of Minimum Voting Age and Political Parties

As to the knowledge of minimum voting age, 82 of the IFALE participants (92%) and 73 non-participants (75%) in Tigray, and 71 IFALE participants (76%) and 52 non-participants (54%) in Amhara stated the correct minimum voting age as 18 years (Table 7.3; Appendix E, survey question 18). The IFALE curriculum includes teaching the voting age for federal, regional and local elections. In both regions, the number of IFALE participants who knew the voting age was higher than for non-participants. A significantly higher number of IFALE participants and non-participants in Tigray knew the correct voting age than in Amhara.

Each survey participant was to name the political parties he/she knows (Appendix E, survey question 19). In Tigray, 71 IFALE participants (80%) and 52 non-participants (54%) did so while in Amhara the numbers were 52 IFALE participants (56%) and 25 non-participants (26%). The difference between the knowledge of IFALE participants and non-participants was statistically significant in both regions. This suggests that IFALE has made an important contribution in both regions, but less so in Amhara than in Tigray, in terms of participants' advanced political participation. This is in line with Burchfield et al. (2002a) who reported that women in Nepal who participated in literacy programs had better political knowledge of minimum voting age and names of political parties than non-participants. The difference between both the participants and the non-participants in the two regions is statistically significant in favor of Tigray, probably owing to the role of local leaders and the media.

7.1.6 Confidence to be a Locally Elected Representative

In terms of having confidence to be a locally elected representative (Appendix E, survey question 20), 61 IFALE participants (69%) and 49 non-participants (51%) in Tigray as well as 44 IFALE participants (47%) and 42 non-participants (43%) in Amhara answered positively (Table 7.3). The difference between the two groups was statistically significant in Tigray while it was insignificant in Amhara. The difference in terms of IFALE participants (61 in Tigray and 44 in Amhara) was statistically significant. Self-confidence is a necessary precondition for participation in political affairs and ensuring a political space, in this case for rural-based poor people to get their voices heard. In the case of Nepal, female participants in

literacy programs had more self-confidence than female non-participants in terms of believing that they could serve as political representatives (Burchfield et al., 2002a).

Table 7.3: Self-reported political empowerment gains of survey participants by frequency, percent and level of significance

S No.	Item/Question	Answer	Tigray		Amhara		Statistical significance of difference based on chi-square[23] (chi2) & probability value (pr)	
			IFALE partici-pants (N=89)	Non-partici-pants (N=97)	IFALE partici-pants (N=93)	Non-partici-pants (N=97)	Chi-squares for comparing IFALE participants and non-participants in each region	Chi-squares for regional differences, conducted separately for each group
1	What is the minimum voting age?	Yes	82 (92%)	73 (75%)	71 (76%)	52 (54%)	Tigray pr=0.002***chi2=9.519 Amhara pr=0.001***chi2=10.751	IFALE participants pr=0.004*** chi2=8.466 Non-participants pr=0.002*** chi2=9.919
		No	7 (8%)	24 (25%)	22 (24%)	45 (46%)		
2	Can you name a political party/ parties? Please do.	Yes	71 (80%)	52 (54%)	52 (56%)	25 (26%)	Tigray pr=0.000***chi2=14.189 Amhara pr=0.000***chi2=17.896	IFALE participants pr=0.001***chi2=11.819 Non-participants pr=0.000***chi2=15.698
		No	18 (20%)	45 (46%)	41 (44%)	72 (74%)		
3	Could you become a local elected representative?	Yes	61 (69%)	49 (51%)	44 (47%)	42 (43%)	Tigray pr=0.012** chi2=6.240 Amhara pr=0.579 chi2=0.309	IFALE participants pr=0.004*** chi2=8.396 Non-participants pr=0.314 chi2=1.014
		No	28 (31%)	48 (49%)	49 (53%)	55 (57%)		
4	Is there a law on electing representatives (men/women)?	Yes	73 (82%)	66 (68%)	43 (46%)	39 (40%)	Tigray pr=0.028**chi2=4.805 Amhara pr=0.402 chi2=0.704	IFALE participants pr=0.000***chi2=25.198 Non-participants pr=0.000***chi2=15.134
		No	16 (18%)	31 (32%)	50 (54%)	58 (60%)		
5	Are you a member of a community organization?	Yes	80 (90%)	90 (93%)	73 (78%)	70 (72%)	Tigray pr=0.482 chi2=0.495 Amhara pr=0.312 chi2=1.02	IFALE participants pr=0.036** chi2=4.407 Non-participants pr=0.000***chi2=14.265
		No	9 (10%)	7 (7%)	20 (22%)	27 (28%)		
6	Do you know any community development committees in your area?	Yes	87 (98%)	92 (95%)	64 (69%)	58 (60%)	Tigray pr=0.298 chi2=1.083 Amhara pr= 0.195 chi2=1.682	IFALE participants pr=0.000***chi2=26.945 Non-participants pr=0.000***chi2=33.979
		No	2 (2%)	5 (5%)	29 (31%)	39 (40%)		
7	Did you participate in community development activities over the last 2 years?	Yes	87 (98%)	88 (91%)	88 (94%)	93 (96%)	Tigray pr=0.042**chi2=4.124 Amhara pr=0.685 chi2=0.165	IFALE participants pr=0.273 chi2=1.204 Non-participants pr=0.151 chi2=2.061
		No	2 (2%)	9 (9%)	5 (6%)	4 (4%)		

***=significance level at 1%, **significance level at 5%, * significance level at 10%

7.1.7 Knowledge of a Law on Electing Representatives

In response to whether they know any law on electing representatives (Appendix E, survey question 21), 73 IFALE participants (about 82%) and 66 non-participants (about 68%) in Tigray responded positively (Table 7.3). The difference was statistically significant. In Amhara, only less than half of the IFALE participants (43=46%) and non-participants (39=40%) knew of a law. The difference was statistically insignificant. The difference between the two groups in the regions was statistically significant in favor of Tigray. The fact

[23] In chi-square, when the probability (p value) is ≤1%, it is significant at 1% level; when the probability (p value) is between (1, 5]%, it is significant at 5% level; and when the probability (p value) is between (5, 10]%, it is significant at 10% level.

that a significantly higher number of IFALE participants than non-participants in Tigray knew of a law may indicate that IFALE contributed its share to enhancing participants' knowledge, including why and how representatives are chosen.

7.1.8 Membership of Community Organizations

Each survey participant reported whether he/she is a member of a community organization (Table 7.3; Appendix E, survey question 24). In Tigray, 80 IFALE participants (90%) and 90 non-participants (93%) were members of, for example, a farmers' association, a women's association, a youth association, a cooperative organization, or of local social institutions, such as the edir[24]. In Amhara, 73 IFALE participants (78%) and 70 non-participants (72%) were involved in community organizations. The difference between participants and non-participants in each region was statistically insignificant, but across the two regions it was significant in favor of Tigray. According to Stromquist (2009), literacy learners in the US and the UK improved contact with local people because of their involvement in community organizations as a result of the program.

7.1.9 Knowledge of Community Development Committees

As regards community development committees (Appendix E, survey question 27), in Tigray 87 IFALE participants (98%) and 92 non-participants (95%) responded positively knowing, for example, the 1-5 network and development teams[25] (Table 7.3). Likewise, 64 IFALE participants (69%) and 58 non-participants in Amhara (60%) knew of village development committees in their areas. The difference in knowledge between the two groups in each region was statistically insignificant, but across the regions it was significantly higher in Tigray for both groups.

7.1.10 Participation in Community Development Activities

Participation in community development activities is another indicator of political empowerment (Table 7.3; Appendix E, survey question 29). In Tigray, 87 IFALE participants (98%) and 88 non-participants (91%) stated that they had participated in activities, such as water and soil conservation, planting trees, digging water wells, and school and road construction activities. The difference between the two groups was statistically significant and

[24] ***Edir*** is a traditional community organization whose members assist each other during mourning. Members contribute monthly to the fund.

[25] Development teams in rural Ethiopia are organized as follows: one *kebele* comprises 1000 households; and one network is organized in 5 members for which the leader is chosen by the community based on the performance of health and agricultural extension packages. One development team has 5 networks and one development team has 20-30 households in which case one *kebele* has 30-33 development teams. Each household is expected to be a member of one 1-5 network.

may be due to the lessons which the IFALE program provided to its participants. Increased environmental protection and involvement in social services benefit both children and the community at large and also supports livelihoods improvements.

By contrast, 88 IFALE participants (94%) and 93 non-participants (96%) in Amhara had participated in similar community development activities. The difference between the two groups was statistically insignificant. Comparing the two regions, more IFALE participants had participated in community development activities in Tigray than in Amhara while the reverse was the case for the non-participants. In both cases, the difference was statistically insignificant.

7.1.11 Sources of Political Knowledge and Practice

In terms of knowledge and practice of political participation as well as involvement in public institutions (Appendix E, survey question 23), the majority of IFALE participants in Tigray (75%) and Amhara (67%) indicated that IFALE was the most important source (Table 7.4). Local leaders and the local media (local radio) came next. The local leaders and the local media were more important knowledge and practice sources of IFALE participants and non-participants in Tigray than in Amhara.

Table 7.4: Self-reported sources of survey participants' knowledge and practice of political activities by frequency and percent

S. No	Item	Sources	IFALE participants		Non-participants	
			Tigray (N=89)	Amhara (N=93)	Tigray (N=97)	Amhara (N=97)
1	Knowledge and practices of for political participation as well as decision-making of public organizations	IFALE	67 (75%)	62 (67%)	n/a	n/a
		Friends	8 (9%)	11 (12%)	13 (13%)	14 (14%)
		Local leaders	64 (72%)	47 (51%)	70 (72%)	53 (55%)
		Media	47 (53%)	20 (22%)	28 (29%)	12 (12%)
		Others	5 (6%)	3 (3%)	2 (2%)	4 (4%)
2	Knowledge and practices of involvement in community organizations, development committees and development activities	IFALE	63 (71%)	59 (63%)	n/a	n/a
		Agricultural extension workers	27 (30%)	23 (25%)	30 (31%)	17 (18%)
		Friends	3 (3%)	9 (10%)	6 (6%)	8 (8%)
		Local leaders	77 (87%)	60 (65%)	84 (87%)	70 (72%)
		Media	14 (16%)	9 (10%)	6 (5%)	4 (4%)
		Others	5 (6%)	4 (4%)	5 (5%)	5 (5%)

n/a=not applicable

As regards their involvement in community organizations, development committees and development activities (Appendix E, survey question 32), local leaders were the most important sources for IFALE participants (Tigray=87%; Amhara, 60%) and non-participants (Tigray=87%; Amhara, 72%) (Table 7.4). The IFALE participants and non-participants in Tigray seemed to have stronger gains than was the case in Amhara. The enhanced knowledge

of community development committees and higher membership in community organizations may be due to more efforts of local leaders at grassroots levels.

7.1.12 Summary

The comparisons between IFALE participants and non-participants indicate that IFALE has contributed to some degree of political empowerment gains of participants, but more so in Tigray than in Amhara. In both Tigray and Amhara, IFALE played an important role in supporting participants' knowledge of the voting age and the names of different political parties. In Tigray, IFALE has meaningfully improved its participants' confidence in terms of becoming an elected representative, participating in public institutions' decision-making, knowing the law on electing representatives, and participating in community development activities. In Amhara, IFALE is likely to improve the participants' practice of participation in voting.

Consistent with Nussbaum (2000), IFALE is therefore likely to have resulted in improved capabilities in terms of knowledge and practice of what is sensible or practical political behavior as well as ability to participate in politics through playing different roles in the community. However, this was more so in Tigray than in Amhara. By contrast, IFALE seems not to have led to significant political gains in terms of its participants' membership of community organizations, or knowledge of community development committees in the two regions.

IFALE participants and non-participants in Tigray had significant political gains compared to Amhara. The specific areas concerned: practice of participation in voting in different roles (voters, facilitators, and observers); awareness of the voting age and names of different political parties; interest in being a local representative for elections; knowledge of the law on electing representatives; membership of community organizations; and knowledge of community development committees. This can be attributed to endeavors made by, for example local leaders, agricultural extension workers and local media.

7.2 IFALE and Economic Empowerment

Economic empowerment concerns the contribution of adult literacy to economic improvements that enable individuals to support themselves, have a better quality of life and make decisions independently. According to Lauglo (2001) and Stromquist (2009), access to both credit services and income generation schemes are also crucial if adult literacy education

is to bring about economic empowerment. In this dissertation, other factors are also seen as important to empower small-scale rural farmers. In the study, the indicators of economic empowerment are: knowledge and practice of agricultural technologies; knowledge and practice of environmental protection; access to credit; use of income generation schemes; knowledge and practice of savings; and knowledge and practice of financial contributions for investment or mutual support services.

7.2.1 Importance and Practice of Agricultural Technologies

The survey participants rated the importance and their practices of agricultural technologies that increase agricultural production, namely improved agricultural tools (such as ploughs, tools for sowing crops in lines), selected seeds, fertilizers, compost, manure, pesticides, herbicides, seed planting in lines, well-timed crop gathering, drip-irrigation, and the use of a motor pump (Appendix E, survey question 33).

As appears in Table 7.5, IFALE participants (mean=4.96) and non-participants (4.97) in Tigray and IFALE participants (mean=4.65) and non-participants (mean=4.61) in Amhara rated the agricultural technologies as nearly *very important*. The difference between the two groups in each region was statistically insignificant. This implies that IFALE seems not to have played a significant role in developing its participants' awareness of the importance of the technologies.

In terms of practices of agricultural technologies, IFALE participants (mean=3.53) and non-participants (mean=3.43) in Tigray rated them above *average*. The difference between them was statistically insignificant. The ratings of IFALE participants (mean=3.32) and non-participants (mean=3.11) in Amhara were also statistically insignificant. IFALE, therefore, seems not to have contributed to what Cameron and Cameron (2005) consider as the capacity to employ technological advances and precise specification requirements for new technology. Nevertheless, studies on adult literacy education in Kenya (Carron et al., 1989) and Tanzania (Carr-Hill et al., 1991) report that adult literacy programs played an important role in spreading modern agricultural techniques.

In relation to the importance of agricultural technologies, the difference between IFALE participants in Tigray (mean=4.96) and Amhara (mean=4.65) was statistically significant and so was the difference between non-participants of IFALE in Tigray (mean=4.97) and Amhara (mean=4.61). In terms of the practices of agricultural technologies, the difference between IFALE participants in Tigray (mean=3.53) and Amhara (mean=3.32) was statistically

insignificant while the difference between non-participants of IFALE in Tigray (mean=3.43) and Amhara (mean=3.11) was statistically significant.

Table 7.5: Self-reported economic empowerment gains of survey participants by mean and statistical significance

S. No.	Item	Region	Group	Mean	Statistical significance level of difference based on t-test and pr	
					T-tests for comparing IFALE participants and non-participants in each region	**T-tests for regional differences, conducted separately for each group**
1	Importance of agricultural technologies	Tigray	IFALE participants	4.96	t=-0.551 pr=0.582	IFALE participants t=6.062* **pr=0.000 Non-participants t=7.840*** pr=0.000
			Non-participants	4.97		
		Amhara	IFALE participants	4.65	t=0.659 pr=0.511	
			Non-participants	4.61		
	Practice of agricultural technologies	Tigray	IFALE participants	3.53	t=0.821 pr=0.413	IFALE participants t=1.882* Pr=0.061 Non-participants t=2.570** pr=0.011
			Non-participants	3.43		
		Amhara	IFALE participants	3.32	t=1.9325* pr=0.055	
			Non-participants	3.11		
2	Importance of measures of environmental protection	Tigray	IFALE participants	4.98	t=0.137 pr=0.890	IFALE participants t=6.452***pr=0.000 Non-participants t=7.815***pr =0.000
			Non-participants	4.98		
		Amhara	IFALE participants	4.73	t=1.245 pr=0.215	
			Non-participants	4.66		
	Practices of measures of environmental protection	Tigray	IFALE participants	4.34	t=0.617 pr=0.538	IFALE participants t=6.908***pr=0.000 Non-participants t=6.996***pr=0.000
			Non-participants	4.29		
		Amhara	IFALE participants	3.76	t=0.667 pr=0.506	
			Non-participants	3.70		
3	Importance of participation in saving	Tigray	IFALE participants	4.90	t=2.709*** pr=0.007	IFALE participants t=3.046*** pr=0.003 Non-participants t=1.512 pr =0.132
			Non-participants	4.64		
		Amhara	IFALE participants	4.61	t=1.308 pr=0.192	
			Non-participants	4.44		
	Practice of participation in saving	Tigray	IFALE participants	3.66	t=2.145** pr=0.033	IFALE participants t=2.368** pr=0.019 Non-participants t=2.131** pr=0.034
			Non-participants	3.23		
		Amhara	IFALE participants	3.20	t=2.112** pr=0.036	
			Non-participants	2.80		

***=level of significance at 1%, ** level of significance at 5 % and *level of significant at 10%

7.2.2 Importance and Practice of Environmental Protection

There were a number of indicators for the importance and practices of environmental protection measures (Appendix E, survey question 35). They included, amongst others, contour ploughing, terracing, check dams, gabion walls, daget[26], sediment traps, tree planting, enclosures, fuel-wood saving stoves and latrines.

As shown in Table 7.5, ratings of environmental protection measures by IFALE participants (mean=4.98) and non-participants (mean=4.98) in Tigray were *very important.* The mean values attached by IFALE participants (mean=4.73) and non-participants (mean=4.67) in Amhara suggest that environmental protection measures were approximately *very important*. The difference between them was statistically insignificant. This could imply that IFALE has

[26] Daget is a traditional soil and water conservation technique used by north Ethiopian farmers. It is a 50 cm to 3 metres high lynchet between fields (farmlands) and has grass strips of different sizes on its shoulder (Nyssen, 1998).

not played a significant role in raising the awareness of the survey participants as far as knowledge of the importance of environmental protection measures is concerned.

The practices of environmental protection measures of IFALE participants (mean=4.34) and non-participants (mean=4.29) in Tigray were reported as above *high*, while for the IFALE participants (mean=3.76) and non-participants (mean=3.70) in Amhara they were nearly *high.* The differences in both regions were statistically insignificant, indicating that IFALE has not made a difference in enhancing the practices of participants. IFALE, therefore, seems not to play a significant role in helping the participants in the two regions select superior technologies to protect the natural environment. This is in contrast to other studies, for example literacy programs in Uganda which helped participants reduce the amount of wood fuel they used (Katahoire, 2001as cited in Cameron & Cameron, 2005), implying wiser use of environmental resources and improved environmental protection.

The differences in the importance and the practice of the environmental measures were significant in favor of Tigray both when comparing IFALE participants, and when comparing non-participants across the two regions.

7.2.3 Importance and Practice of Saving

In respect of the importance and practice of saving (Appendix E, survey questions numbers 37 & 38), IFALE participants (mean=4.90) and non-participants (mean=4.64) in Tigray ratings were almost *very important* (Table 7.5). The difference between the groups was significant. This probably implies that participation in IFALE in Tigray plays an important role in increasing participants' knowledge of the importance of saving. In Amhara, IFALE participants (mean=4.61) and non-participants (mean=4.44) rated saving as *very important* and *important*. The difference was statistically insignificant.

The saving practice of IFALE participants (mean=3.66) and non-participants (mean=3.23) in Tigray was rated nearly *good* and *average*, respectively, while in Amhara IFALE participants (mean=3.20) and non-participants (mean=2.80) rated themselves as approximately *average*. In each region, the difference between participants and non-participants was statistically significant. It implies that IFALE possibly played an important role in improving the saving practices of the participants which could help them combat economic vulnerability, diversify their income, for example for additional income generation activities, and eventually enhance livelihoods sustainably. This is in accordance with Cameron and Cameron (2005, p. 8) who claim that literacy gains may lead to saving opportunities. The Women Empowerment

Program (WEP), a literacy training program in the Terai region of Nepal, also reinforced prevailing practices of saving and credit associations (Ashe and Parrott, 2001).

The difference in the importance of saving between IFALE participants in Tigray and Amhara was statistically significant while in the case of non-IFALE participants in the two regions it was statistically insignificant. As regards saving practice, the differences between IFALE participants and non-participants in Tigray and Amhara were statistically significant. The difference between the two regions may be explained by the coordinated efforts in Tigray of the Dedebit Credit and Savings Institution (DECSI), agricultural extension workers and local leaders on the importance of saving.

7.2.4 Sources of Knowledge and Practices of Agricultural Technologies and Environmental Protection Measures

The responses by the survey participants on factors that support their awareness of importance and practice of agricultural technologies and environmental protection measures appear in Table 7.6 (Appendix E, survey question 34). IFALE participants and non-participants in Tigray rated local leaders and agricultural extension workers higher as sources of knowledge and practices of agricultural technologies than in Amhara. This may explain the significant difference in mean values between non-participants in both regions in terms of practices of agricultural technologies (refer 7.2.1).

Table 7.6: Survey participants' self-reported sources of knowledge and practice of agricultural technologies and environmental protection measures by frequency and percent

S. No.	Item	Sources	IFALE participants by frequency and percent		Non-participants by frequency and percent	
			Tigray (N=89)	Amhara (N=93)	Tigray (N=97)	Amhara N=97)
1	Knowledge and practices of agricultural technologies	IFALE	73 (82%)	65 (70%)	n/a	n/a
		FTCs	77 (87%)	65 (70%)	74 (76%)	70 (72%)
		Agricultural extension workers	72 (81%)	37 (40%)	79 (81%)	47 (48%)
		Health extension workers	20 (22%)	16 (17%)	12 (12%)	14 (14%)
		Local leaders	59 (66%)	25 (27%)	75 (77%)	39 (40%)
		Media	29 (33%)	10 (11%)	20 (21%)	8 (8%)
		Others	0	8 (9%)	1 (1%)	7 (7%)
2	Knowledge and practices of environmental protection measures	IFALE	80 (90%)	76 (82%)	n/a	n/a
		FTCs	76 (85%)	51 (55%)	77 (79%)	55 (57%)
		Agricultural extension workers	62 (70%)	27 (29%)	73 (75%)	37 (38%)
		Health extension workers	53 (60%)	54 (58%)	55 (57%)	61 (63%)
		Local leaders	56 (63%)	30 (32%)	69 (71%)	47 (48%)
		Media	36 (40%)	10 (11%)	20 (21%)	8 (8%)
		Others	1 (1%)	11 (12%)	3 (3%)	5 (5%)

As regards environmental protection measures (Appendix E, survey question 36), IFALE followed by FTCs, health extension workers, agricultural extension workers and local leaders are the most important sources of knowledge and practice for IFALE participants in both Tigray and Amhara. In Tigray, the agricultural extension workers, the local administrators

and the FTCs are more important sources than in Amhara. This may explain the difference regarding environmental protection measures in favor of Tigray (refer 7.2.2).

7.2.5 Financial Contributions to Productive Investment and/or Mutual Support

As regards contributions of money for an organization or productive investment in 2011and 2012 (Appendix E, survey question 42), 84 IFALE participants (94%) and 93 non-participants (96%) in Tigray had done so (Table 7.7). Eighty-two IFALE participants (88%) and 84 non-participants (87%) in Amhara had contributed money to different organizations. In both regions, the difference between the two groups was statistically insignificant. This means that IFALE has not contributed to improving services of mutual support or, as stated by Cameron and Cameron (2005, p. 7), 'seeking new ways of financing productive investment'.

The difference between financial contributions by IFALE participants in the two regions was statistically insignificant while for the non-participants it was statistically significant. Most of the survey participants contributed money for the construction of schools and health centers, as well as for the purchase of an ambulance. They also bought bonds for the construction of the Ethiopian Grand Renaissance Dam.

Table 7.7: Self-reported credit access gains and financial contributions of survey participants by frequency, percent, and statistical significance

S. No.	Question	Answer	Tigray		Amhara		Statistical significance level of the difference based on pr and ch2 values	
			IFALE partici-pants (N=89)	Non-partici-pants (N=97)	IFALE partici-pants (N=93)	Non-partici-pants (N=97)	Chi-squares for comparing IFALE participants and non-participants in each region	Chi-squares for regional differences, conducted separately for each group
1	Did you contribute money for investment or a mutual support service in 2011, 2012 & 2013?	Yes	84 (94%)	93 (96%)	82 (88%)	84 (87%)	Tigray pr=0.635 chi2=1.225	IFALE participants pr=0.139 chi2=2.187
		No	5 (6%)	4 (4%)	11 (12%)	13 (13%)	Amhara pr=0.744 chi2=0.107	Non-participants pr=0.022** chi2=5.222
2	Do you have access to credit for additional income generation in your community?	Yes	84 (94%)	89 (92%)	81 (87%)	79 (81%)	Tigray pr=0.482 chi2=0.494	Participants pr=0.091* chi2=2.850
		No	5 (6%)	8 (8%)	12 (13%)	18 (19%)	Amhara pr=0.285 chi2=1.141	Non-participants pr=0.035**chi2=4.441
3	Do you have any means of income generation?	Yes	82 (92%)	80 (82%)	72 (77%)	71 (73%)	Tigray pr=0.050**chi2= 3.854	IFALE participants pr=0.006***chi2= 7.565
		No	7 (8%)	17 (18%)	21 (23%)	26 (27%)	Amhara pr= 0.500 chi2=0.455	Non-participants pr=0.120 chi2=2.420

***=significance level at 1%, **significance level at 5 %, * significance level at 10%

7.2.6 Sources of Knowledge and Practice of Financial Contributions

As shown in Table 7.8, in terms of financial contributions for schools, purchase of ambulances etc. (Appendix E, survey question 44), local leaders were the most important source of encouragement (Tigray=87%; Amhara=82%), and more important than IFALE (Tigray=51%; Amhara=52%). Health extension workers, the local media and agricultural extension workers were more important for non-IFALE participants in Tigray than in Amhara.

Table 7.8: Self-reported sources of survey participants' knowledge and practice of financial contributions by frequency and percent

Item	Sources	IFALE participants		Non-participants	
		Tigray (N=89)	Amhara (N=93)	Tigray (N=97)	Amhara (N=97)
Knowledge and practice of financial contributions	IFALE	45 (51%)	48 (52%)	n/a	n/a
	Agricultural extension workers	22 (25%)	14 (15%)	20 (21%)	14 (14%)
	Health extension workers	22 (24%)	17 (18%)	21 (22%)	11 (11%)
	Friends	5 (6%)	5 (5%)	3 (3%)	4 (4%)
	Local leaders	77 (87%)	76 (82%)	92 (95%)	88 (91%)
	Media	20 (22%)	11 (12%)	13 (13%)	6 (6%)
	Others	5 (6%)	4 (4%)	4 (4%)	2 (2%)

n/a=not applicable

7.2.7 Access to Credit

In Tigray, 84 IFALE participants (94%) and 89 non-participants (92%) had access to credit for income generation compared to 81 IFALE participants (87%) and 79 non-participants (81%) in Amhara (Table 7.7; Appendix E, survey question 39). The difference between the two groups within each region was statistically insignificant. This shows that access to micro-credit is not related to IFALE in contrast to the study on women in Nepal (Ashe and Parrott, 2001). However, the differences in access to credit between both IFALE participants and non-participants across the two regions were statistically significant.

Regarding credit service (Appendix E, survey question 40), most survey participants reported that a rural credit and savings bank was the most important source (Table 7.9), specifically DCSI in Tigray and Amhara Credit and Savings Institution (ACSI) in Amhara. More opportunities for credit access can accelerate additional income generation that lead to more economic empowerment.

More non-IFALE participants in Tigray than Amhara have access to credit services. This may suggest that rural community members in Tigray also had awareness raising training by local leaders and agricultural extension workers who play a key role in the village community concerning awareness of agricultural technologies and environmental protection measures.

Table 7.9: Survey participants' self-reported sources of credit by frequency and percent

S. No.	Sources of credit	Number of IFALE participants		Number of non-participants	
		Tigray (N=89)	Amhara (N=93)	Tigray (N=97)	Amhara (N=97)
1	A rural credit and saving bank	77 (86%)	60 (65%)	80 (82%)	55 (57%)
2	Women's association	19 (21%)	4 (%)	18 (19%)	2 (2%)
3	NGOs	5 (6%)	2 (4%)	0	1 (1%)
4	Local money lenders	5 (6%)	11 (12%)	3 (3%)	13 (13%)
5	Others*	10 (11%)	18 (19%)	13 (13%)	23 (24%)

*=Friends, relatives, neighbors etc.

7.2.8 Income Generation Schemes

As indicated in Table 7.7 (Appendix E, survey question 41), 82 IFALE participants (92%) and 80 non-IFALE participants (82%) in Tigray have a means of income generation. The difference between them was statistically significant. This shows that IFALE meaningfully enabled program participants to have a means of income generation or income diversification through participation, for example in handicraft, vegetable growing and dairy production.

In Amhara, 72 IFALE participants (77%) and 71 non-IFALE participants (73%) had a method of income generation. The difference between both groups was statistically insignificant, perhaps suggesting that IFALE did not support program participants in having a means of income generation. The difference between IFALE participants across the two regions was statistically significant in favor of Tigray.

The number of IFALE participants in Tigray who participated in income generation schemes (301) was significantly higher than the number of the non-participant group (247) (Table 7.10; Appendix E, survey question 41). On average an IFALE participant was involved in approximately three income generation schemes and a non-participant in 2.5 income generation schemes. In Amhara, IFALE participants (179) also slightly outnumber non-participants (164) in terms of involvement in income-generation schemes which is on average two schemes for each group. This may suggest that literacy gains helped the participants use credit facilities to invest in income generation schemes. According to Cameron and Cameron (2005), adult literacy can help participants engage themselves in revenue making productive investment.

In Tigray, the most common income generation scheme for IFALE participants was poultry (79%) whereas in Amhara it was vegetable growing (49%). Generally speaking, IFALE participants and non-participants in Tigray were more involved in income generation schemes than in Amhara—with the exception of vegetable growing and small businesses.

Table 7.10: Survey participants' self-reported involvements in income generation schemes by frequency and percent

S. No	Income generation schemes	Tigray		Amhara	
		IFALE participants (N=89)	Non-participants (N=97)	IFALE participants (N=93)	Non-participants (N=97)
1	Vegetable growing	32 (36%)	26 (27%)	46 (49%)	49 (51%)
2	Small business	17 (19%)	13 (13%)	27 (29%)	14 (14%)
3	Handicraft	24 (27%)	14 (14%)	16 (17%)	11 (11%)
4	Poultry	70 (79%)	63 (65%)	28 (30%)	28 (29%)
5	Dairy production	34 (38%)	27 (28%)	13 (14%)	8 (8%)
6	Fattening (oxen)	43 (48%)	40 (41%)	28 (30%)	22 (23%)
7	Bee keeping	25 (28%)	17 (18%)	11 (12%)	8 (8%)
8	Supplying spices	10 (11%)	7 (7%)	1 (1%)	3 (3%)
9	Working as a seasonal daily laborer	44 (49%)	40 (41%)	4 (4%)	12 (12%)
10	Others (for example, hair doing, masonry)	2 (2%)	0 (0%)	5 (5%)	9 (%)
Total frequency of participation in various income generation schemes		301	247	179	164

7.2.9 Summary

Although empowerment gains from IFALE are relatively better in Tigray than Amhara, these gains appear to be generally low in both regions. As the results show, IFALE plays an important role in enhancing participants' saving practice in both Tigray and Amhara. It also contributes to the involvement of its participants in income generation schemes in Tigray. However, IFALE does not result in improved practices of agricultural technologies and environmental protection measures, access to credit for income generation, and practice of financial contributions for productive investment and mutual support in either region.

IFALE participants and non-participants in Tigray have more meaningful gains than their comparison groups in Amhara on most economic empowerment indicators, including better practices of agricultural technologies, measures of environmental protection, access to credit, income generation schemes and saving. But this appears to be because of other factors than IFALE, such as agricultural extension workers and local administrators.

7.3 IFALE and Socio-Cultural Empowerment

The understanding of socio-cultural empowerment in this dissertation builds on two definitions in the literature. According to Vasumathi (2008), in the context of adult literacy education, social empowerment refers to the processes that help establish social networks, norms and social trust and lead to common benefit among people. Cultural empowerment enables learners to replace a traditional lifestyle with a modern one (Vasumathi, 2008). Socio-cultural empowerment refers to the ability of literacy education to contribute to enhancing learners' social capital and changing particular cultural traditions.

Socio-cultural empowerment is closely interlinked with political and economic empowerment. The indicators for socio-cultural empowerment in this study originate from the IFALE curriculum and primers and include: gender equality in decision making; understanding gender equality for development; knowledge of laws protecting women and children and of laws against gender discrimination; importance and practices of HIV/AIDS control measures; family cohesion; wanting an additional child; family planning; specific traditional activities; personal hygiene; maternal and child care; social justice and democratic culture activities; and conflict resolution methods.

7.3.1 Gender Equality in Decision Making

In order to understand gender equality at household level (Appendix E, survey question 45), survey participants reported on who is the main decision maker in their family as regards the eight areas listed in Table 7.11.

The concept of family was understood broadly. In Tigray, the survey included 6 single, 10 divorced, 4 widows/widowers and 69 married IFALE participants and 4 single, 12 divorced, 4 widows/widowers and 77 married non-participants. In Amhara, there were 11 single, 5 divorced, 4 widows/widowers and 73 married IFALE participants, and 5 single, 8 divorced, 1 widow and 83 married non-participants. Since those who are single, divorced or a widow/er live without a partner, only responses from married survey participants were analyzed regarding gender equality of husband and wife in decision making within their families (Table 7.11; Appendix L).

In Tigray, the number of IFALE participant married couples that took decisions together was smaller than for the non-participants in the same region. This implies that IFALE did not contribute to learner practices about gender equality in decision-making. In contrast, more married IFALE participants than non-participants in Amhara attested to equal participation in decision making concerning selling expensive things, using a method of birth control, disciplining a child, purchasing agricultural inputs, and deciding what crops to sow. This may mean that IFALE played a role in household decision making in Amhara, probably because civics, ethics and gender equality within the family are included as contents in the primer (ABE, 2011a, ABE, 2012a). This is in contrast to a study by Kagitcibasi et al. (2005) which shows no significant positive changes among functional adult literacy participant women in terms of household decision making practices in Turkey.

Table 7.11: Married survey participants' self-reports on gender equality in decision making in the family by frequency and percent

S. No.	Item	Options	Tigray				Amhara			
			Married IFALE participants (Number=69)		Married Non-participants (Number=77)		Married IFALE participants (Number=73)		Married Non-participants (Number=83)	
			Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Main decision maker in your family for buying expensive things?	Husband	4	5.8	3	3.90	9	12.33	15	18.07
		Wife	4	5.8	0	0	6	8.22	2	2. 41
		Husband and wife	61	88.41	74	96.1	53	72.60	62	74.70
		Others	0	0	0	0	5	6.85	4	4.82
		Total	69	100	77	100	73	100	83	100
2	Main decision maker in your family for selling expensive things?	Husband	3	4.35	4	5.19	6	8.22	16	19.28
		Wife	3	4.35	0	0	5	6.85	2	2.41
		Husband and wife	63	91.3	73	94.81	58	79.45	60	72.29
		Others	0	0	0	0	4	5.48	5	6.02
		Total	69	100	77	100	73	100	83	100
3	Main decision maker in your family for having another child?	Husband	1	1.45	0	0	1	1.37	2	2.41
		Wife	3	4.35	0	0	6	8.22	4	4.82
		Husband and wife	65	94.20	77	100	66	90.41	77	92.77
		Others	0	0	0	0	0	0	0	0
		Total	69	100	77	0	73	100	83	100
4	Main decision maker in your family for using birth control?	Husband	0	0	0	0	0	0	3	3.61
		Wife	6	8.70	3	3.90	8	10.96	12	14.46
		Husband and wife	63	91.30	72	93.51	64	87.67	68	81.93
		Others	0	0	2	2.60	1	1.37	0	0
		Total	69	100	77	100	73	100	83	100
5	Main decision maker in your family for disciplining the child?	Husband	2	2.90	4	5.19	21	28.77	31	37.80
		Wife	4	5.80	2	2.60	3	4.11	1	1.22
		Husband and wife	63	91.30	71	92.21	48	65.75	50	60.98
		Others	0	0	0	0	1	1.37	0	0
		Total	69	100	77	100	73	100	82	100
6	Main decision maker in your family for arranging marriage for a daughter/son?	Husband	1	1.45	1	1.30	9	12.33	13	15.66
		Wife	3	4.35	0	0	5	6.85	2	2.41
		Husband and wife	65	94.20	76	98.70	52	71.23	62	74.70
		Others	0	0	0	0	7	9.59	6	7.23
		Total	69	100	77	100	73	100	83	100
7	Main decision maker in your family for purchasing agricultural inputs?	Husband	0	0	5	6.58	14	19.18	29	34.94
		Wife	6	8.70	0	0	3	4.11	5	6.02
		Husband and wife	63	91.30	71	93.42	54	73.97	49	59.04
		Others	0	0	0	0	2	2.74	0	0
		Total	69	100	76	100	73	100	83	100
8	Main decision maker in your family for deciding what crops to sow?	Husband	1	1.45	2	2.63	19	26.03	36	43.37
		Wife	5	7.25	0	0	3	4.11	6	7.23
		Husband and wife	63	91.30	74	97.37	51	69.86	41	49.40
		Others	0	0	0	0	0	0	0	0
		Total	69	100	76	100	73	100	83	100

7.3.2 **Understanding Gender Equality for Development**

The survey participants were asked whether males and females contribute equally to development (Table 7.12; Appendix E survey question 47). In Tigray, 83 IFALE participants (93%) and 94 non-participants (97%) responded positively. The responses in Amhara were similar: 88 IFALE participants (95%) and 86 non-participants (89%) said yes. The difference between IFALE participants and non-participants in each of the two regions was statistically insignificant. The difference between IFALE participants within the two regions was also

statistically insignificant while that of the non-participants was significant. The latter may be due to the endeavors of women's associations in Tigray (refer Table 7.13).

7.3.3 **Knowledge of Laws against Gender Discrimination**

Survey participants were asked if they know of any law against gender discrimination (Table 7.12; Appendix E, survey question 50). Eighty-one IFALE participants (91%) and 83 non-participants (86%) in Tigray, and 42 IFALE participants (45%) and 38 non-participants (39%) in Amhara did. The difference between IFALE participants and non-participants in each region was statistically insignificant.

In both regions, the survey respondents indicated that the Constitution assures equal rights of women and men in every sphere. It guarantees affirmative actions to remedy the sufferings of women because of past inequalities and the rights of women to own and administer property, to family planning services and to paid pre- and post-delivery maternity leaves. The regional differences between IFALE participants and between non-participants of both regions were statistically significant.

Table 7.12: Self-reported socio-cultural empowerment gains of survey participants by frequency, percent, and statistical significance

S No.	Question	Answer	Tigray		Amhara		Statistical significance of the difference based on pr and ch2 values	
			IFALE partici-pants (N=89)	Non-partici-pants (N=97)	IFALE partici-pants (N=93)	Non-partici-pants (N=97)	Chi-squares for comparing FALE participants and non-participants in each region	Chi-squares for regional differences, conducted separately for each group
1	Do you think that males and females contribute equally to development?	Yes	83 (93%)	94 (97%)	88 (95%)	86 (89%)	Tigray pr=0.247 chi2=1.342	IFALE participants pr=0.699 chi2(1)=0.149
		No	6 (7%)	3 (3%)	5 (5%)	11 (11%)	Amhara pr=0.139 chi2=2.190	Non-participants pr=0.026** chi2=4.927
2	Do you know whether there are laws against gender discrimination?	Yes	81 (91%)	83 (86%)	42 (45%)	38 (39%)	Tigray pr=0.251 chi2=1.319	IFALE participants pr=0.000***chi2=43.638
		No	8 (9%)	14 (14%)	51 (55%)	59 (61%)	Amhara pr=0.403 chi2=0.698	Non-participants r=0.000***chi2=44.475
3	Do you know of laws protecting women and children?	Yes	88 (99%)	95 (98%)	60 (65%)	51 (53%)	Tigray pr=0.612 chi2=0.258	IFALE participants pr=0.000***chi2=35.344
		No	1 (1%)	2 (2%)	33 (35%)	46 (47%)	Amhara pr=0.095* chi2=2.786	Non-participants pr=0.000***chi2=53.594

***=level of significance at 1%, ** level of significance at 5 % and *level of significant at 10%

7.3.4 **Knowledge of Laws Protecting Women and Children**

In Tigray, 88 IFALE participants (99%) and 95 non-participants (98%) knew of laws protecting women and children (Table 7.12; Appendix E, survey question 55). In Amhara, 60 IFALE participants (65%) and 51 non-participants (53%) were aware of the laws. The difference was statistically insignificant within each region.

Generally speaking, the survey participants reported that they know the Constitution which affirms the rights of all persons including men, women and children alike, recognizes the vulnerable position of children, and guarantees their right. In the case of both participants and non-participants, differences were statistically significant in favor of Tigray.

7.3.5 Knowledge Sources of Gender Equality, and Laws against Gender Discrimination and for Protection of Women and Children

IFALE seems to be the most important source for equal gender decision making among IFALE participants (rated by 78% in Tigray, 72% in Amhara) (Table 7.13; Appendix E, survey question 46). Local leaders, agricultural extension workers and the local media were also influential. In Tigray, more IFALE participants and non-participants referred to local leaders as sources of knowledge and practice about gender equality of decision-making than was the case in Amhara.

Table 7.13: Survey participants' self-reported knowledge of gender equality, and laws against gender discrimination and protection of women and children by frequency and percent

S. No	Item	Sources	IFALE participants		Non-participants	
			Tigray	Amhara	Tigray	Amhara
1	Knowledge of gender equality in decision making within the family	IFALE	69 (78%)	67 (72%)	**n/a**	**n/a**
		Agricultural extension workers	35 (39%)	14 (15%)	34 (35%)	6 (6%)
		Local leaders	55 (62%)	24 (26%)	71 (73%)	39 (40%)
		Media	27 (30%)	13 (14%)	18 (19%)	9 (9%)
		Others	9 (10%)	58 (62%)	12 (12%)	81 (84%)
2	Knowledge of gender equality in development	IFALE	79 (89%)	75 (81%)	**n/a***	**n/a**
		Agricultural extension workers	15(17%)	11 (12%)	20 (21%)	11 (11%)
		Women's association	49 (55%)	22 (24%)	55 (57%)	17 (18%)
		Friends	8 (9%)	13 (14%)	7 (8%)	11 (11%)
		Local leaders	68 (76%)	51 (55%)	88 (91%)	74 (76%)
		Media	32 (36%)	20 (22%)	40 (41%)	21 (22%)
		Others	5 (6%)	0 (0%)	2 (2%)	6 (6%)
3	Knowledge of laws against gender discrimination	IFALE	76 (85%)	71 (76%)	**n/a**	**n/a**
		Women's association	55 (62%)	27 (29%)	56 (58%)	20 (21%)
		Friends	9 (10%)	7 (8%)	10 (10%)	12 (12%)
		Local leaders	65 (73%)	62 (67%)	81 (84%)	65 (67%)
		Media	46 (52%)	22 (24%)	31 (32%)	15 (15%)
		Others	0 (0%)	3 (3%)	6 (6%)	5 (5%)
4	Knowledge of laws for protecting women and children	IFALE	79 (89%)	58 (62%)	**n/a**	**n/a**
		Agricultural extension workers	15 (17%)	10 (11%)	11 (11%)	5 (5%)
		Women's association	58 (65%)	27 (29%)	53 (55%)	16 (16%)
		Friends	4 (4%)	12 (13%)	5 (5%)	12 (12%)
		Local leaders	61 (69%)	41 (44%)	75 (77%)	55 (57%)
		Media	33 (37%)	16 (17%)	26 (27%)	13 (13%)
		Others	3 (3%)	2 (2%)	2 (2%)	7 (7%)

As to gender equality for development (Appendix E, survey question 49), IFALE participants in both regions attached the highest importance to IFALE followed by local leaders and women's associations. Local leaders, women's associations and local media (the local radio)

seem to be more important for both IFALE participants and non-participants in Tigray than in Amhara.

IFALE also seems to be the most important source of knowledge of laws against gender discrimination among IFALE participants (Tigray 85%; Amhara 76%) followed by local leaders (Tigray 73%; Amhara 67%) and women's associations (Tigray 62%; Amhara 29%) (Appendix E, survey question 54). IFALE participants and non-participants in Tigray appeared to benefit more from women's associations as regards their knowledge of laws against gender discrimination than in Amhara. This may explain the significant difference between both participants and non-participants in the two regions in favor of Tigray.

IFALE participants ranked IFALE (Tigray 89%; Amhara 58%) first amongst the knowledge sources of laws protecting women and children (Appendix E, survey question 57). Local leaders and women's associations were also of importance for both groups in the two regions. The number of IFALE participants and non-participants in Tigray who reported that women's associations, local leaders and the media were their sources of knowledge of the laws was significantly higher than in Amhara.

Thus, in all three areas local leaders, women's association and local media appear to play a more significant role in Tigray than in Amhara concerning the knowledge of both IFALE participants and non-participants of gender equality and laws against gender discrimination and for protection of women and children.

7.3.6 Importance and Practice of Family Cohesion

There were a number of factors to assess family cohesion. These included, amongst others, whether the mother and father/husband and wife do things together, closeness between the mother/father and the child, closeness between siblings in a family/members of an extended family, and the quality of the relationship among all members of a nuclear family/extended family members (Appendix E, survey question 58).

In terms of family cohesion within the close and extended family, IFALE participants (mean=4.86) and non-participants (mean=4.77) in Tigray rated this as nearly *very important* (Table 7.14). In Amhara, the ratings by IFALE participants (mean=4.39) and non-participants (mean=4.32) was approximately *important*. In both regions, the difference was statistically insignificant and may imply that participation in IFALE played no role in this.

Survey participants also rated their family cohesion practice within their nuclear and extended family. The responses from IFALE participants in Tigray (mean=4.42) was almost *high* which was also the case of non-participants in the same region (mean 4.30). IFALE participants (mean=3.71) and non-participants (mean=3.62) in Amhara also responded nearly *high.* The differences were statistically insignificant. This suggests that the contents and the approach of IFALE play no role because of the strong social bond in Ethiopian culture. By contrast, Kagitcibasi et al. (2005) identify a significant positive contribution to family cohesion because of women's empowerment gained from functional literacy in Turkey.

In relation to the importance of family cohesion, the difference between IFALE participants and between non-participants across regions was significant in favor of those in Tigray. Regional differences between IFALE participants in Tigray (mean=4.42) and Amhara (mean=3.71) as well as non-IFALE participants in Tigray (mean=4.30) and Amhara (mean=3.62) as regards family relation practices were statistically significant.

7.3.7 **Importance and Practice of Specific Traditional Activities**

To understand empowerment in terms of addressing specific cultural practices, survey participants were asked about the importance and their personal practices in the following areas: breaking up immediately after marriage if the bride is not a virgin; considerable age difference in marriage, underage marriage; marriage by abduction; levirate marriage[27]; sexual harassment (unwanted and deliberate touching, leaning over, cornering, or pinching); genital mutilation; rape; milk teeth extraction; uvulectomy; engagement of children in hard work; physical abuse of children; sexual abuse of children; high spending in feasts; increased number of holidays; scratching one's face and beating one's chest after the death of a beloved one; and visits to local fortune-tellers (Appendix E, survey question 60).

IFALE participants (mean=1.50) and non-participants (mean=1.70) in Tigray rated the list of specific traditional activities as almost *totally unimportant* and *not important,* respectively (Table 7.14). In Amhara, the ratings of IFALE participants (mean=1.52) and non-participants (mean=1.73) was approximately *not important*. Within each region, the differences were statistically significant. IFALE appears to make a difference in empowering its participants in terms of understanding the disadvantages of the particular traditional activities since practices, such as genital mutilation, milk teeth extraction, uvulectomy, high spending in feasts, and

[27] According to the Concise Oxford Dictionary of World Religions, levirate marriage is a type of marriage in which a brother is obliged to marry his brother's widow, and the widow is obliged to marry her deceased husband's brother.

increased number of holidays, affect health, livelihoods and individual rights in one way or another.

Survey participants self-reported how often they practice the mentioned specific traditional activities. IFALE participants in Tigray (mean=1.45) seemed *not* to practice the activities *at all*, while the non-participants in the same region (mean=1.61) practiced them only *rarely*. IFALE participants (mean=1.51) and non-participants (mean=1.62) in Amhara practiced them almost *rarely*. The difference between the mean values of the two groups in each region was statistically significant. This may be explained by IFALE which focuses its contents on harmful traditional practices, such as marriage by abduction and genital mutilation that have been rooted in Ethiopia for generations (MoE, 2010c; TEB, 2010; AEB, 2011a, 2011b). This may suggest that IFALE contributed to changing attitudes towards these practices through its contents and approaches.

In terms of the importance of the specified traditional activities, regional differences were insignificant between both IFALE participants in Tigray (mean=1.50) and Amhara (mean=1.52) and between non-IFALE participants in Tigray (mean=1.70) and Amhara (mean=1.73). In terms of the practices of specified traditional activities across the two regions, there was insignificant statistical difference between IFALE participants in Tigray (mean=1.45) and Amhara (mean=1.51), and between non-IFALE participants in Tigray (mean=1.62) and Amhara (mean=1.62).

7.3.8 **Importance and Practice of Wanting an Additional Child**

An additional[28] child here refers to the wish to have another child in addition to what the survey participants already had. Survey participants rated the importance and their practices of wanting an additional child for the following seven reasons: financial support in old age (economic value); old age security (psychological value); support to the parents when the child is young (economic value); love (psychological and social value); closeness (psychological and social value); parental name (social value); and fun (psychological value) (Appendix E, survey question 62). The lower the values attached to each of the reasons, the more empowered the survey participants are considered to be.

IFALE participants (mean=4.67) and non-participants (mean=4.80) in Tigray rated having an additional child as almost *very important* (Table 7.14). The difference between the two groups was statistically significant. In this case, IFALE seems to make a difference for the

[28] The total fertility rate in rural Ethiopia is 5.5 children per family (Ethiopian Central Statistics Agency, CSA, 2012).

participants. In contrast, in Amhara, IFALE participants (mean=4.63) and non-participants (mean=4.62) rated having an additional child as almost *very important* with insignificant difference between the two groups and, therefore, apparently no impact from IFALE.

Survey participants also assessed their practices of wanting an additional child. IFALE participants (mean=4.57) and non-participants (mean=4.72) in Tigray rated them as almost *very high*. The difference between the mean values was statistically significant. The lower mean values may be due to behavioral changes gained from exposure to the IFALE program. Similar to this, Kagitcibasi et al. (2005) report that functional literacy participating women in Turkey valued children positively. The ratings by IFALE participants (mean=4.03) and non-participants (mean=4.00) in Amhara were *high* and the difference was statistically insignificant.

The difference between IFALE participants in Tigray (mean=4.67) and Amhara (mean=4.63) was statistically insignificant while in the case of non-participants in Tigray (mean=4.80) and Amhara (mean=4.62) it was statistically significant. The non-participants in Amhara seem to have more modern attitudes than in Tigray. This is probably because the group in Tigray is more highly influenced by local culture and parents. As regards the practice of wanting an additional child, the differences between IFALE participants in Tigray (mean=4.57) and Amhara (mean=4.03) as well as between the non-participants in Tigray (mean=4.72) and Amhara (mean=4.00) were statistically significant in favor of the groups in Amhara. The groups in Amhara seem to be more empowered probably because of lesser influence of the local culture.

7.3.9 **Importance and Practice of Family Planning**

IFALE participants (mean=4.99) and non-participants (mean=4.98) in Tigray rated family planning methods (birth spacing and methods of contraception) as almost *very important* (Table 7.14; Appendix E, survey question 64). This was also the case in Amhara (mean values of IFALE participants=4.67 and non-participants=4.54). The difference in each region was statistically insignificant, indicating that participation in IFALE hardly contributes to better knowledge of the importance of family planning. This is in contrast to other studies, for example Burchfield et al. (2002b) reporting that literacy program participants in Bolivia had more knowledge of family planning than non-participants.

In terms of family planning practice, the responses of IFALE participants (mean=4.19) and non-participants (mean=4.05) in Tigray were statistically insignificant. In Amhara,

(mean=3.93 and 3.48) the difference was statistically significant. This may mean that the IFALE program in Amhara probably contributes substantially to the empowerment of its participants in terms of the practice of controlling the number and spacing of children. This could be because of population and family planning which is included in the contents of the primer (ABE, 2011a; ABE, 2012a).

With respect to regional comparison, the difference in the importance of family planning between IFALE participants in Tigray (mean=4.99) and Amhara (mean=4.67) and between non-participants in Tigray (mean=4.98) and Amhara (mean=4.54) was statistically significant. As regards, family planning practices of IFALE participants in Tigray (mean=4.19) and Amhara (mean=3.93), the difference was statistically insignificant while for non-participants in Tigray (mean=4.05) and Amhara (mean=3.48) it was statistically significant.

7.3.10 Importance and Practice of Personal Hygiene

Survey participants rated the importance of personal hygiene, including regular baths, cleaning of teeth and cutting of nails (Table 7.14; Appendix E, survey question 65). In Tigray, IFALE participants (mean=5) and non-participants (mean=5) rated this as *very important*. In Amhara, IFALE participants (mean=4.53) and non-participants (4.34) rated it *very important* and *important*, respectively. The difference was statistically insignificant in both regions, but significant in favor of Tigray when comparing the two regions. IFALE participants (mean=4.05) and non-participants (mean=3.91) in Tigray rated their personal hygiene practices as *good*. IFALE participants (mean=3.05) and non-participants (mean=2.86) in Amhara rated their practices as *average*. The difference was statistically insignificant in both regions, but significant in favor of Tigray when comparing the two regions. This shows that IFALE does not make a difference in terms of improving knowledge of importance and practices of personal hygiene. IFALE does not, therefore, contribute to participants' essential capability of bodily health or having good health (Nussbaum, 2000). In contrast, adult literacy programs in India have resulted in positive changes in terms of hygiene practices (Vasumathi, 2008).

Table 7.14: Self-reported socio-cultural empowerment gains of survey participants by mean and statistical significance

S. No.	Item	Region	Group	Mean	Statistical significance of the difference based on t-test	
					T-tests for comparing IFALE participants and non-participants in each region	T-tests for regional differences, conducted separately for each group
1	Importance of family cohesion	Tigray	IFALE participants	4.86	t=1.840* pr = 0.067	IFALE participants t=7.873*** pr=0.000 Non-participants t=6.404*** pr=0.000
			Non-participants	4.77		
		Amhara	IFALE participants	4.39	t=0.866 pr= 0.387	
			Non-participants	4.32		
	Practice of family cohesion	Tigray	IFALE participants	4.42	t=1.617 pr=0.108	IFALE participants t=7.886*** pr=0.000 Non-participants t=7.849*** pr=0.000
			Non-participants	4.30		
		Amhara	IFALE participants	3.71	t=0.915 pr=0.361	
			Non-participants	3.62		
2	Importance of particular traditional activities	Tigray	IFALE participants	1.50	t=-3.396*** pr=0.001	IFALE participants t=-0.470 pr=0.639 Non-participants t=-0.390 pr=0.697
			Non-participants	1.70		
		Amhara	IFALE participants	1.52	t=-3.146*** pr=0.002	
			Non-participants	1.73		
	Practice of particular traditional activities	Tigray	IFALE participants	1.45	t=-3.127*** pr=0.002	IFALE participants t=-1.074 pr=0.284 Non-participants t=-0.033 pr=0.974
			Non-participants	1.62		
		Amhara	IFALE participants	1.51	t=-2.037** pr=0.043	
			Non-participants	1.62		
3	Importance of reasons for wanting an additional child	Tigray	IFALE participants	4.67	t=1.995** pr=0.048	IFALE participants t=0.543 pr=0.588 Non-participants t=3.068*** pr=0.003
			Non-participants	4.80		
		Amhara	IFALE participants	4.63	t=0.201 pr=0.841	
			Non-participants	4.62		
	Practice of the reasons for wanting an additional child	Tigray	IFALE participants	4.57	t=-2.209** pr=0.028	IFALE participants t=5.466*** pr=0.000 Non-participants t=8.442*** pr=0.000
			Non-participants	4.72		
		Amhara	IFALE participants	4.03	t=0.277 pr=0.782	
			Non-participants	4.00		
4	Importance of family planning	Tigray	IFALE participants	4.99	t=0.749 pr=0.455	IFALE participants t=4.218*** pr=0.000 Non-participants t=6.099*** pr=6.099
			Non-participants	4.98		
		Amhara	IFALE participants	4.67	t=1.244 pr=0.215	
			Non-participants	4.54		
	Practice of family planning	Tigray	IFALE participants	4.19	t=0.904 pr=0.368	IFALE participants t=1.563 pr=0.120 Non-participants t=3.435*** pr=0.001
			Non-participants	4.05		
		Amhara	IFALE participants	3.93	t=2.629*** pr=0.009	
			Non-participants	3.48		
5	Importance of personal hygiene	Tigray	IFALE participants	5.00	t=0.958 pr=0.340	IFALE participants t=6.442*** pr=0.000 Non-participants t=8.903*** pr=0.000
			Non-participants	5.00		
		Amhara	IFALE participants	4.53	t=1.915* pr=0.057	
			Non-participants	4.34		
	Practice of personal hygiene	Tigray	IFALE participants	4.05	t=1.218 pr=0.225	IFALE participants t=9.660*** pr=0.000 Non-participants t=9.691*** pr=0.000
			Non-participants	3.91		
		Amhara	IFALE participants	3.05	t=1.954* pr=0.052	
			Non-participants	2.86		
6	Importance of maternal and child care	Tigray	IFALE participants	4.98	t=0.483 pr=0.630	IFALE participants t=4.266*** pr=0.000 Non-participants t=5.291*** pr=0.000
			Non-participants	4.97		
		Amhara	IFALE participants	4.58	t=0.670 pr=0.504	
			Non-participants	4.49		
	Practice of maternal and child care	Tigray	IFALE participants	4.68	t=1.539 pr=0.126	IFALE participants t=6.945**** pr=0.000 Non-participants t=9.0830*** pr=0.000
			Non-participants	4.49		
		Amhara	IFALE participants	3.69	t=2.780*** pr=0.006	
			Non-participants	3.27		

S. No.	Item	Region	Group	Mean	Statistical significance of the difference based on t-test	
					T-tests for comparing IFALE participants and non-participants in each region	T-tests for regional differences, conducted separately for each group
7	Importance of HIV/AIDS control measures	Tigray	IFALE participants	4.93	t=1.292 pr =0.198	IFALE participants t=4.679*** pr=0.000 Non-participants t=5.657*** pr=0.000
			Non-participants	4.88		
		Amhara	IFALE participants	4.63	t=1.520 pr=0.130	
			Non-participants	4.50		
	Practice of HIV-AIDS control measures	Tigray	IFALE participants	3.80	t=0.747 pr=0.456	IFALE participants t=5.568*** pr=0.000 Non-participants t=5.797*** pr=0.000
			Non-participants	3.74		
		Amhara	IFALE participants	3.20	t=0.205 pr=0.838	
			Non-participants	3.18		
			Non-participants	4.09		
		Amhara	IFALE participants	3.23	t=0.781 pr=0.436	
			Non-participants	3.10		
8	Importance of social justice activities	Tigray	IFALE participants	4.43	t=1.060 pr=0.290	IFALE participants t=3.947*** pr=0.000 Non-participants t=5.493*** pr=0.000
			Non-participants	4.35		
		Amhara	IFALE participants	4.12	t=2.586*** pr=0.011	
			Non-participants	3.91		
	Practice of social justice activities	Tigray	IFALE participants	3.85	t=1.177 pr=0.241	IFALE participants t=7.410*** pr=0.000 Non-participants t=9.307*** pr=0.000
			Non-participants	3.72		
		Amhara	IFALE participants	3.09	t=3.421*** pr=0.001	
			Non-participants	2.78		
9	Importance of democratic culture	Tigray	IFALE participants	4.90	t=2.498** pr=0.013	IFALE participants t=7.992*** pr=0.000 Non-participants t=8.199*** pr=0.000
			Non-participants	4.80		
		Amhara	IFALE participants	4.45	t=2.450** pr=0.015	
			Non-participants	4.26		
	Practice of democratic culture	Tigray	IFALE participants	4.55	t=1.720* pr=0.087	IFALE participants t=9.215*** pr=0.000 Non-participants t=11.445*** pr=0.000
			Non-participants	4.41		
		Amhara	IFALE participants	3.67	t=2.780*** pr=0.006	
			Non-participants	3.37		
10	Importance of conflict resolution methods	Tigray	IFALE participants	4.68	t=-0.518 pr=0.605	IFALE participants t=-0.956 pr=0.340 Non-participants t=1.061 pr=0.290
			Non-participants	4.72		
		Amhara	IFALE participants	4.74	t=1.517 pr=0.131	
			Non-participants	4.65		
	Practice of conflict resolution methods	Tigray	IFALE participants	4.09	t=-0.002 pr=0.998	IFALE participants t=5.088*** pr=0.000 Non-participants t=5.994*** pr=0.000
			Non-participants	4.09		
		Amhara	IFALE participants	3.23	t=0.781 pr=0.436	
			Non-participants	3.10		

***=level of significance at 1%, ** level of significance at 5 % and *level of significant at 10%

7.3.11 **Importance and Practice of Maternal and Child Care**

Maternal and child health care in this study refers to the efforts made to promote therapeutic, rehabilitation or care in order to reduce mortality and morbidity among mothers, infants and pre-school children. IFALE participant and non-participant groups in both regions rated the importance of maternal and child care, i.e. pre- and post-natal care (Table 7.14; Appendix E, survey question 66). IFALE participants (mean=4.98) and non-participants (mean=4.97) in Tigray rated this as nearly *very important*. IFALE participants (mean=4.58) and non-participants (mean=4.49) in Amhara rated it as roughly *very important* and *important*, respectively. In both regions, the differences were statistically insignificant. This may imply that IFALE did not contribute to participants' understanding of the importance of maternal and child care. This is contrary to other studies showing the importance of adult literacy for

raising awareness of health problems (Cameron & Cameron, 2005; Robinson-Pant, 2005; Farah, 2005). Vasumathi (2008) reports the positive contribution of adult literacy programs to knowledge of the importance of pre- and post-natal care in India.

When comparing maternal and child care practices of IFALE participants (mean=4.68) and non-participants (mean=4.49) in Tigray, the difference was statistically insignificant. In Amhara, the difference between IFALE participants (mean=3.69) and non-participants (mean=3.27) was statistically significant which may be due to the IFALE efforts.

With respect to the importance of maternal and child care across the regions, the differences between IFALE participants in Tigray (mean=4.98) and Amhara (mean=4.58) as well as of non-participants of IFALE in Tigray (mean=4.97) and Amhara (mean=4.49) were statistically significant. As to practices of maternal and child care, differences between IFALE participants in Tigray (mean=4.68) and Amhara (mean=3.69) as well as of non-participants in Tigray (mean=4.49) and Amhara (mean=3.27) were statistically significant in favor of the groups in Tigray.

7.3.12 Importance and Practice of Measures of HIV/AIDS Control

Survey participants self-reported on the importance and practices of abstinence, sterilization of shared sharp objects before use, condom use and faithfulness as HIV/AIDS control measures (Table 7.14; Appendix E, survey question 68). The ratings of IFALE participants (mean=4.93) and non-IFALE participants (mean=4.88) in Tigray and of IFALE participants (mean=4.62) and non-IFALE participants (mean=4.50) in Amhara were *very important*, with insignificant statistical difference in each region. It seems that IFALE did not contribute to the knowledge of the importance of the HIV/AIDS measures.

The ratings given to the practice of HIV/AIDS measures by IFALE participants (mean=3.80) and non-participants (mean=3.74) in Tigray were nearly *good* while those by IFALE participants (mean=3.20) and non-participants (mean=3.18) in Amhara were approximately *average*. The difference between the two groups in each region was statistically insignificant indicating the likely absence of an IFALE role. This is contrary to the claim that literacy improves awareness of health threats in the physical environment (Cameron & Cameron, 2005), can contribute to improved knowledge (Burchfield et al., 2002a) and practice of measures of HIV/AIDS (DFID, 2002) as ways of improving livelihoods.

The difference between the ratings of IFALE participants in Tigray (mean=4.93) and Amhara (mean=4.63), and of non-IFALE participants in Tigray (mean=4.88) and Amhara (mean=4.50) on the importance of HIV/AIDS control measures was statistically significant. As to practices of HIV/AIDS control mechanisms, the differences between IFALE participants in Tigray and Amhara and between the non-IFALE participants in both regions were statistically significant in favor of the groups in Tigray.

7.3.13 Importance and Practice of Social Justice

Social justice here refers to fairness, equality, equity, and opportunities for participation in personal development, social and community life and decision making for all members of a society. The survey participants self-reported on the importance of a number of social justice activities, including, amongst others, marriage arrangements with other social groups in their communities, fair treatment of all people irrespective of religious differences, encouragement of female participation in all spheres of life, male participation in traditional female areas, female participation in traditional male activities, engagement in social activism or social change in the community, and supporting the needy (Appendix E, survey question 70).

In Tigray, IFALE participants (mean=4.43) and non-participants (mean=4.35) rated social justice activities as *important* (Table 7.14). The difference was statistically insignificant. This means that IFALE seems not to play a role in raising participants' awareness of the importance of social justice activities. In Amhara, IFALE participants (mean=4.12) and non-participants (mean=3.91) rated the activities as approximately *important*. The difference was statistically significant. In Amhara IFALE appears to contribute to participants' understanding of the importance of social justice activities in their everyday life.

Survey participants also reported their practices of social justice activities. IFALE participants (mean=3.85) and non-participants (mean=3.72) in Tigray represented them as approximately *good*. The difference was statistically insignificant. IFALE participants (mean=3.09) and non-participants (mean=2.78) in Amhara rated their own practice of social justice activities as *average*. The difference was statistically significant. This may show the vital role played by IFALE in participants' practices of fair treatment of all kinds of people, male participation in traditional female areas and vice versa, and supporting the needy.

Concerning the importance of social justice activities, the difference between IFALE participants in Tigray (mean=4.43) and Amhara (4.12), as well as between non-participants in Tigray (mean=4.35) and Amhara (3.91) was statistically significant. In terms of practice of

social justice activities, the difference between IFALE participants in Tigray (mean=3.85) and Amhara (mean=3.09), and between non-participants in Tigray (mean=3.72) and Amhara (mean=2.78) was statistically significant in favor of Tigray.

7.3.14 Importance and Practice of Democratic Culture

A number of activities concern the importance and practice of democratic culture. They include, amongst others, ability to distinguish facts from opinions, use of participatory decision-making, willingness to listen to others and to reflect on one's actions, communication at an eye level regardless of age, respect for difference in perceptions and beliefs, for diversity, and for everyone's civil and legal rights (Appendix E, survey question 72).

IFALE participants (mean=4.90) and non-participants (mean=4.80) in Tigray rated democratic culture activities as nearly *very important* whereas in Amhara IFALE participants (mean=4.45) and non-participants (mean=4.26) rated the activities as approximately *important* (Table 7.14). The differences were statistically significant and may be due to the IFALE program.

In terms of practice of democratic culture activities, the mean value difference between IFALE participants (mean=4.55) and non-participants (mean=4.41) in Tigray was statistically insignificant, indicating that IFALE was not a contributing factor. The difference between IFALE participants (mean=3.67) and non-participants (3.37) in Amhara was statistically significant. IFALE in Amhara possibly served as a contributing factor to participants' enhanced practices of democratic culture activities, such as use of participatory decision-making, willingness to listen to others and to reflect on one's actions, respect for difference in perceptions and beliefs, for diversity, and for everyone's civil and legal rights. This is important to change autocratic ways of solving problems.

Concerning the importance of democratic culture activities, the difference between the mean values of IFALE participants in Tigray (mean=4.90) and Amhara (mean=4.45), as well as of non-participants of IFALE in Tigray (mean=4.80) and Amhara (mean=4.26) was statistically significant. In terms of the practices of democratic culture activities, the differences between IFALE participants (mean=4.55 in Tigray and mean=3.67 in Amhara) and non-participants (mean=4.4 in Tigray and mean=3.37 in Amhara) were also statistically significant.

7.3.15 Importance and Practice of Conflict Resolution

The importance and practice of conflict resolution included: direct discussion with the other party; negotiation (compromise); apology; and arbitration by elders or formal litigation (Appendix E, survey question 74). The IFALE participants (mean=4.68) and non-participants (mean=4.72) in Tigray found conflict resolution techniques to be *very important*. IFALE participants (mean=4.74) and non-participants (mean=4.65) in Amhara also rated them as *very important* (Table 7.14). The difference in each region was statistically insignificant. The findings imply that IFALE did not play a role in enhancing participants' knowledge of the importance of conflict resolution techniques.

In terms of practices, in Tigray the ratings of IFALE participants (mean=4.09) and non-participants (mean=4.09) were *good*. In Amhara IFALE participants (mean=3.23) and non-participants (mean=3.10) rated their practices as *average*. The difference in each region was statistically insignificant, meaning that IFALE was probably inconsequential to conflict resolution practice.

For the importance of conflict resolution methods, the differences between IFALE participants (mean=4.68 in Tigray and 4.74 in Amhara) and between non-participants (mean=4.72 in Tigray and 4.65 in Amhara) were statistically insignificant. Comparisons between IFALE participants in Tigray (mean=4.09) and Amhara (mean=3.23) as well as between non-participants in Tigray (mean=4.09) and Amhara (mean=3.09) showed a statistically significant difference in favor of the groups in Tigray, probably implying that local leaders and local media played stronger roles in Tigray than in Amhara (refer Table 7.15).

7.3.16 Sources of Socio-Cultural Empowerment Gains

The survey groups reported their sources of knowledge and practice of the selected indicators for socio-cultural empowerment: family cohesion, harmful traditional activities, wanting an additional child, personal hygiene, family planning, maternal and child care, HIV/AIDS control mechanisms, social justice activities, democratic culture activities, and conflict resolution methods (Table 7.15).

Regarding knowledge and practice of family cohesion (Appendix E, survey question 59), local culture and IFALE were the most important sources for IFALE participants in both regions. While IFALE was most important for IFALE participants in Amhara (77%), IFALE

participants in Tigray ranked local culture highest (96%). Local culture inherited over generations seems to be the most important source of knowledge and practice of family cohesion for both IFALE participants and non-participants in Tigray. This may also be the reason for the substantial difference in favor of Tigray between IFALE participants and non-participants of the two regions.

As to the sources of knowledge and practices of traditional harmful activities (Table 7.15; Appendix E, survey question 61), IFALE participants rated IFALE (Tigray 93%; Amhara 90%), local leaders (Tigray 76%; Amhara 71%), health extension workers (Tigray 72%; Amhara 65%), and the media (Tigray 38%; Amhara 33%) first, second, third and fourth. This shows IFALE as the most important source of knowledge on harmful traditional practices as well as on measures taken against them.

Table 7.15 also helps to understand the crucial factors that contributed to increasing the knowledge and practice of survey participants for wanting an additional child (Appendix E, survey question 63). Ratings by IFALE participants in both regions show that IFALE (Tigray 46%; Amhara 41%) had a less important role than parents (Tigray 96%; Amhara 76%), and local culture (Tigray 97%; Amhara 69%). Local culture and parents in Tigray play stronger roles than in Amhara. This may explain that both groups in Tigray want significantly more to have an additional child than in Amhara.

In terms of personal hygiene, family planning and maternal and child care (Table 7.15; Appendix E, survey question 67), IFALE in Amhara was the most important source of knowledge and practice for participants (85%) followed by health extension workers (75%). IFALE in Tigray is the second most important source (84%) following health extension workers (94%). IFALE participants and non-participants in Tigray rated local leaders, the media and health extension workers higher than in Amhara. This probably explains the significantly higher practices of personal hygiene, family planning and maternal and child care among IFALE participants and non-participants in Tigray than in Amhara.

As to the sources of knowledge and practice of HIV/AIDS control mechanisms (Table 7.15; Appendix E, survey question 69), IFALE participants in the two regions rated IFALE (Tigray 91%; Amhara 86%) and health extension workers (Tigray 93%; Amhara 83%) as the most important. IFALE participant and non-participant groups in both regions stressed health extension workers as the main source of knowledge and practice of HIV/AIDS control measures. IFALE participants and non-participants in Tigray claimed that local leaders and

local media were more important sources than in Amhara which may explain the significant difference in favor of IFALE participants and non-participants in Tigray.

Table 7.15: Survey participants' self-reported sources of knowledge and practice of socio-cultural gains by frequency and percent

S. No	Item	Sources	IFALE participants by frequency and percent		Non-participants by frequency and percent	
			Tigray	Amhara	Tigray	Amhara
1	Knowledge and practice of family cohesion	IFALE	51 (57%)	72 (77%)	n/a	n/a
		Health extension workers	22 (25%)	14 (15%)	20 (21%)	12 (12%)
		Local culture	85 (96%)	54 (58%)	94 (97%)	80 (82%)
		Media	19 (21%)	11 (12%)	14 (14%)	6 (6%)
		Others	6 (7%)	7 (8%)	13 (13%)	28 (29%)
2	Knowledge and practice of harmful traditional activities	IFALE	83 (93%)	84 (90%)	n/a	n/a
		Agricultural extension workers	21 (24%)	16 (17%)	17 (18%)	9 (9%)
		Health extension workers	64 (72%)	60 (65%)	62 (64%)	67 (69%)
		Local leaders	68 (76%)	66 (71%)	80 (82%)	76 (78%)
		Media	34 (38%)	31 (33%)	23 (24%)	20 (21%)
		Others	3 (3%)	6 (6%)	6 (6%)	28 (29%)
3	Knowledge and practice of wanting an additional child	IFALE	41 (46%)	38 (41%)	n/a	n/a
		Health extension workers	16 (18%)	1 (1%)	11 (11%)	3 (3%)
		Local culture	86 (97%)	64 (69%)	95 (98%)	74 (76%)
		Local leaders	18 (20%)	8 (9%)	21 (22%)	17 (18%)
		Parents	85 (96%)	71 (76%)	95 (98%)	72 (74%)
		Media	8 (9%)	2 (2%)	4 (4%)	0 (0%)
		Others	0 (0%)	2 (2%)	0 (0%)	7 (7%)
4	Knowledge and practice of personal hygiene, family planning, and maternal and child care	IFALE	78 (84%)	79 (85%)	n/a	n/a
		Agricultural extension workers	15 (17%)	7 (8%)	13 (13%)	8 (8%)
		Health extension workers	84 (94%)	70 (75%)	88 (91%)	76 (78%)
		Local leaders	43 (48%)	22 (24%)	62 (64%)	37 (38%)
		Media	35 (39%)	17 (18%)	28 (29%)	14 (14%)
		Others	2 (2%)	2 (2%)	1 (1%)	15 (15%)
5	Knowledge and practice of HIV/AIDS control mechanisms	IFALE	81 (91%)	80 (86%)	n/a	n/a
		Agricultural extension workers	15 (17%)	10 (11%)	11 (11%)	9 (9%)
		Health extension workers	83 (93%)	77 (83%)	88 (91%)	83 (86%)
		Local leaders	47 (53%)	27 (29%)	66 (68%)	44 (45%)
		Media	38 (43%)	24 (26%)	33 (34%)	14 (14%)
		Others	2 (2%)	3 (3%)	2 (2%)	8 (8%)
6	Knowledge and practice of social justice activities	IFALE	78 (88%)	64 (69%)	n/a	n/a
		Agricultural extension workers	35 (39%)	11 (12%)	28 (29%)	6 (6%)
		Health extension workers	37 (42%)	21 (23%)	37 (38%)	15 (15%)
		Local leaders	64 (72%)	38 (41%)	71 (73%)	66 (68%)
		Media	37 (42%)	16 (17%)	28 (29%)	16 (16%)
		Others	11 (12%)	14 (15%)	26 (27%)	24 (25%)
7	Knowledge and practice of democratic culture	IFALE	79 (89%)	81 (87%)	n/a	n/a
		Agricultural extension workers	24 (27%)	13 (14%)	19 (20%)	11 (11%)
		Health extension workers	34 (38%)	20 (22%)	24 (25%)	17 (18%)
		Local leaders	59 (66%)	43 (46%)	77 (79%)	72 (74%)
		Media	36 (40%)	14 (15%)	25 (26%)	12 (12%)
		Others	9 (10%)	3 (3%)	13 (13%)	20 (21%)
8	Knowledge and practice of conflict resolution	IFALE	78(88%)	69 (74%)	n/a	n/a
		Agricultural extension workers	21 (24%)	12 (13%)	16 (16%)	10 (10%)
		Health extension workers	19 (21%)	11 (12%)	13 (13%)	10 (10%)
		Local leaders	59 (66%)	49 (53%)	79 (81%)	68 (70%)
		Media	30 (34%)	12 (13%)	20 (21%)	12 (12%)
		Others	10 (11%)	8 (9%)	14 (14%)	27 (28%)

In respect of the sources of knowledge and practice of social justice activities (Table 7.15; Appendix E, survey question 71), IFALE participants in both regions rated IFALE (Tigray 88%; Amhara 69%) and local leaders (Tigray 72%; Amhara 41%) as the first and second

most important sources. Agricultural extension workers, health extension workers and local leaders in Tigray contributed more to the knowledge and practice of IFALE participants and non-participants than was the case in Amhara. Stronger engagement of the three sources can explain the significant difference in knowledge and practice of social justice activities in favor of the IFALE participant and non-participant groups in Tigray.

The majority of IFALE participants rated IFALE (Tigray 89%; Amhara 87%) as the main source of knowledge and practices of democratic culture activities (Table 7.15; Appendix E, survey question 73), followed by local leaders (Tigray 66%; Amhara 46%). The local media seems to play a more important role in Tigray than in Amhara and may explain the significant difference in favor of the IFALE participants and non-participants in Tigray.

As regards the sources of knowledge and practice of conflict resolution methods (Table 7.15; Appendix E, survey question 75), IFALE participants in both Tigray and Amhara rated IFALE highest. Local leaders (81% of the non-IFALE participants in Tigray; 70% of non-IFALE participants in Amhara) and the local media (34% of IFALE participants in Tigray; 13% in Amhara) seem to play a more important role in Tigray than in Amhara and could explain the significant difference between the survey groups in the two regions.

In sum, for both IFALE participants and non-participants local leaders, local media and health extension seem to be more important sources of knowledge and practice in many areas of socio-cultural empowerment in Tigray than in Amhara. This may explain the significant difference between the two regions.

7.3.17 Summary

The comparison between IFALE participants and non-participants in each region with regard to socio-cultural empowerment shows that IFALE makes an important contribution in terms of practices of traditional activities and democratic culture activities among participants in both Tigray and Amhara. In Tigray, IFALE has played a substantial role in changing its participants' reasons for wanting an additional child. In Amhara, IFALE has contributed significantly to participants in terms of practices of maternal and child care, family planning and social justice activities. Likewise, IFALE results in considerable changes in achieving gender equality of most decisions within the family among its married participants in the region.

However, in the two regions IFALE has not made an important contribution to improving socio-cultural empowerment related to practices of personal hygiene, HIV/AIDS control

measures, family cohesion, and conflict resolution or to knowledge of the role of gender equality for development, and knowledge of laws against gender discrimination.

The regional comparison shows that both IFALE participants and non-participants in Tigray had higher practice of family cohesion, personal hygiene, maternal and child care, measures of HIV/AIDS control, social justice activities, democratic culture actions, and conflict resolution methods, as well as knowledge of laws protecting women and children and against gender discrimination. But this knowledge cannot be categorically attributed to the IFALE program since other sources, such as local leaders and local media, were influential.

7.4 IFALE and Psychological Empowerment

In this study, psychological empowerment is related to the concepts of self-concept and self-efficacy discussed in other literature (for example Kagitcibasi et al., 2005). The indicators for the self-concept are: being pleased with oneself; being a good husband/wife; being pleased with one's appearance; being a good mother/father; being a good son/daughter; being knowledgeable, skillful and successful in life; and being a resourceful contributor to the community (Appendix E, survey question 76). As regards self-efficacy, the indicators are: buying items in the market; buying food in a restaurant; going to the church/mosque; going to the clinic/hospital; taking the bus/taxi/rickshaw (*bajaj*); making transactions in a (rural) bank; paying bills; and crossing the bridge (Appendix E, survey question 78).

7.4.1 Importance and Practice of Self-Concept

IFALE participants (mean=4.95) and non-participants (mean=4.96) in Tigray rated the self-concept as almost *very important* (Table 7.16). The difference is statistically insignificant. In Amhara, IFALE participants (mean=4.64) and non-participants (mean=4.54) rated the self-concept as nearly *very important*. The difference is statistically insignificant.

The practice of self-concept was rated above *good* by IFALE participants (mean=4.42) and non-participants (mean=4.28) in Tigray. In Amhara, IFALE participants (mean=3.87) and non-participants (mean=3.70) found it nearly *good* (Table 7.16). The difference in both regions was statistically insignificant. This indicates that IFALE did not enhance self-concept practices meaningfully. By contrast, the impact assessment study of functional adult literacy for women in Turkey shows that their self-concept improved significantly (Kagitcibasi et al., 2005).

In relation to the importance of self-concept, the differences between IFALE participants in Tigray (mean=4.95) and Amhara (mean=4.64) as well as between non-IFALE participants in Tigray (mean=4.96) and Amhara (4.54) were statistically significant. The difference between IFALE participants in Tigray (mean=4.42) and Amhara (mean=3.87) as well as the difference between non-IFALE participants in Tigray (mean=4.28) and Amhara (mean=3.70) corresponding to self-concept practices were also statistically significant. This means that local culture and parents probably played a stronger role in Tigray (refer Table 7.17).

7.4.2 Importance and Practice of Self-Efficacy

In respect of the importance of self-efficacy, the ratings of IFALE participants and non-participants in Tigray (mean=4.18 and 3.96, respectively) were *important*, while in Amhara (mean=3.24 and 3.11, respectively) they were roughly *average* (Table 7.16). There was a statistically insignificant difference between IFALE participant and non-participant groups in each region.

In terms of self-efficacy practices in Tigray, IFALE participants rated these as nearly *high* (mean=3.80) whereas the non-participants set them above *average* (mean=3.46). In the case of Amhara, IFALE participants and non-participants reported their self-efficacy practice to be nearly *average* (mean=2.74) and approximately *poor* (mean=2.47), respectively. The differences in both regions were statistically significant, indicating that IFALE contributed much in terms of building participants' confidence. Similar studies, for example in El Salvador, Bangladesh and Uganda (Archer & Cottingham, 1996), report that adult literacy education contributes to considerable changes in self-efficacy. However, an impact assessment study of functional adult literacy on women's empowerment in Turkey (Kagitcibasi et al., 2005) did not result in improved self-efficacy.

As regards the importance of self-efficacy, the difference between IFALE participants in Tigray (mean=4.18) and Amhara (mean=3.24) and between non-participants in Tigray (mean=3.96) and Amhara (mean=3.11) was statistically significant. Regarding self-efficacy practice, the differences between IFALE participants in Tigray (mean=3.80) and Amhara (mean=2.74) as well as between non-participants in Tigray (mean=3.46) and Amhara (mean=2.47) were also statistically significant. This may be explained by the efforts of local leaders and health extension workers in Tigray (refer Table 7.17).

Table 7.16: Self-reported psychological empowerment gains of survey participants by mean and statistical significance

S. No.	Item	Region	Group	Mean	Statistical significance of the difference based on t-test and p-value	
					T-tests for comparing IFALE participants and non-participants in each region	T-tests for regional differences, conducted separately for each group
1	Importance of self-concept	Tigray	IFALE participants	4.95	t=-0.766 pr =0.445	IFALE participants t=6.379*** pr=0.000
			Non- participants	4.96		
		Amhara	IFALE participants	4.64	t=1.542 pr=0.125	Non-participants t=8.967*** pr=0.000
			Non-participants	4.54		
	Practice of self-concept	Tigray	IFALE participants	4.42	t=1.836* pr=0.068	IFALE participants t=5.994*** pr=0.000
			Non-participants	4.28		
		Amhara	IFALE participants	3.87	t=1.712* Pr=0.089	Non-participants t=6.644*** pr=0.000
			Non-participants	3.70		
2	Importance of self-efficacy	Tigray	IFALE participants	4.18	t=1.554 Pr=0.122	IFALE participants t=7.155*** pr=0.000
			Non-participants	3.96		
		Amhara	IFALE participants	3.24	t=1.038 Pr=0.301	Non-participants t=6.506*** pr=0.000
			Non-participants	3.11		
	Practice of self-efficacy	Tigray	IFALE participants	3.80	t=2.327** Pr=0.021	IFALE participants t=8.108*** pr=0.000
			Non-participants	3.46		
		Amhara	IFALE participants	2.74	t=2.492** Pr=0.014	Non-participants t=7.728*** pr=0.000
			Non-participants	2.47		

***=level of significance at 1%, ** level of significance at 5 %, *level of significant at 10%

7.4.3 Sources of Knowledge and Practice of Self-Concept and Self-Efficacy

IFALE participants in Tigray ranked local culture (83%) followed by parents (82%) and IFALE (75%) as the most important sources of their self-concept knowledge and practice (Table 7.17; Appendix E, survey question 77). In Amhara, IFALE participants rated IFALE (73%), followed by parents (58%) and local culture (56%) as the most important sources. The role played by local culture and parents in raising the practice of the self-concept of the survey participants seems to be higher in Tigray than in Amhara and may explain the significant self-concept practice results in Tigray.

IFALE and local leaders seem to be the most important sources of the self-efficacy knowledge and practice (Appendix E, survey question 79). Most IFALE participants in both regions found IFALE (Tigray 73%; Amhara 60%) to be an important source of self-efficacy knowledge and practice. Local leaders were also important for IFALE participants and non-participants, but more so in Tigray than in Amhara. The efforts made, amongst others, by the local leaders may explain the more highly improved self-efficacy practice in Tigray compared to Amhara. A greater number of non-IFALE participants than IFALE participants in Amhara had other self–efficacy knowledge and practice sources, such as friends, parents, and neighbors.

Table 7.17: Survey participants' self-reported sources of knowledge and practice of self-concept and self-efficacy by frequency and percent

S. No	Item	Sources	IFALE participants		Non-participants	
			Tigray	Amhara	Tigray	Amhara
1	Knowledge and practice of self-concept	IFALE	67 (75%)	68 (73%)	n/a	n/a
		Agricultural extension workers	22 (25%)	11 (12%)	16 (16%)	9 (9%)
		Local leaders	33 (37%)	37 (40%)	38 (39%)	28 (29%)
		Local culture	74 (83%)	52 (56%)	91 (94%)	62 (64%)
		Parents	73 (82%)	54 (58%)	83 (86%)	72 (74%)
		Media	13 (15%)	8 (9%)	6 (6%)	6 (6%)
		Others	3 (3%)	7 (8%)	3 (3%)	15 (15%)
2	Knowledge and practice of self-efficacy	IFALE	65 (73%)	60 (65%)	n/a	n/a
		Health extension workers	25 (28%)	7 (8%)	16 (16%)	5 (5%)
		Local leaders	54 (61%)	33 (35%)	50 (52%)	39 (40%)
		Media	23 (26%)	16 (17%)	13 (13%)	7 (7%)
		Others*	17 (19%)	21 (23%)	26 (27%)	50 (52%)

*= Friends, parents, neighbors, etc.

7.4.4 **Summary**

The comparison between self-reports of IFALE participants and non-participants shows that IFALE has made a significant contribution to increasing its participants' practices of self-efficacy in Tigray and Amhara, but not considerably to their self-concept. Both IFALE participants and non-participants in Tigray have better practices of both self-concept and self-efficacy as indicators of psychological empowerment than the groups in Amhara.

7.5 **Conclusion**

As discussed in Chapter 6, the supporting institutions of the IFALE policy, e.g. agriculture and rural development, health, women's affairs, youth and social affairs, participated in the preparation of curriculum materials, but largely not in the actual teaching and learning sessions of IFALE. The findings in this chapter regarding the contributions of IFALE to various forms of empowerment should, therefore, be related to the education sector.

The political empowerment gains of IFALE participants in Tigray are higher than in Amhara. The results of the IFALE participant and non-participant self-reports in Tigray show important gains in most of the major political empowerment indicators (7 of the 10, 70%) used in the study. These were: knowledge of the voting age; knowledge of different political parties; interest in becoming an elected representative; knowledge of a law on electing representatives; confidence in terms of becoming an elected representative; participation in decision making in public institutions; and participation in community development activities. In Amhara, IFALE made a meaningful contribution in less than half of the political empowerment indicators (4 of 10, i.e. 40%): knowledge of the voting age; knowledge of

different political parties; interest in becoming an elected representative; and voting participation.

These results imply that there was more emphasis on learning political issues in Tigray than in Amhara. The political empowerment gains in the two regions represent two of Nussbaum's (2000) important capabilities: affiliation to others; and control over one's environment. Affiliation to others manifests as IFALE participants' significant concern for issues that help them live with others in their surroundings, for example participation in pulic institutions and community development activities. Control over the environment is expressed in terms of their ability to participate in politics, such as their interest and participation in voting.

As regards economic empowerment gains, the results for IFALE participants of the two regions are generally poor, but comparatively better in Tigray than in Amhara. The results of the IFALE participants' and non-participants' self-reports show considerable gains in only less than half of the major economic empowerment indicators. These bring important changes among IFALE participants in terms of saving practice and involvement in income generation schemes in Tigray (2 of 6, i.e. 33%), but only of saving practice in Amhara (1 of 6, i.e., 17%). This suggests that immediate economic gains from IFALE are low in both regions. However, other expressions of economic empowerment (improved livelihoods) to which IFALE significantly contributed included improved saving and involvement in income generation schemes. These could result in the capability of participants to own property (Nussbaum, 2000) and, therefore, according to Sen's (1999) capabilities approach, to development that entails increased income and wealth.

In terms of socio-cultural empowerment, the results of self-reports by IFALE participants and non-participants show that the IFALE program played a role in achieving significant gains in only 2 of 14 indicators among participants in Tigray (14%) and in 6 of 14 indicators (43%) in Amhara. In Tigray, IFALE showed positive results in participants' practices of traditional activities, and reasons for wanting an additional child. In Amhara, IFALE contributed positively to its learners in respect of the following indicators: practices of traditional activities, democratic culture activities, maternal and child care, family planning and social justice activities; and achievement of gender equality in most decision making areas within the family. IFALE has advanced more in Amhara than in Tigray with curriculum materials and IFALE teachers in Amhara emphasizing social and cultural issues in their teaching.

As a means to an end for some essential socio-cultural empowerment gains, IFALE represents some of Nussbaum's (2000) vital capabilities. IFALE appears to have helped participants, especially in Amhara, to think, reason and use thought connection, form a conception of the good and start critically reflecting on it (e.g. actions against specific traditional practices), achieve bodily health for mothers and children (e.g. maternal and child care and family planning), and have concern for and live with others in the environment and have practical reason (e.g. democratic culture and social justice activities).

Table 7.18: IFALE's contribution to empowerment in Tigray and Amhara

S. No.	Dimension	Empowerment gains	
		Tigray	**Amhara**
1	Political	7 of 10 indicators (70%) High	4 of 10 indicators (40%) Moderate
2	Economic	2 of 6 indicators (33%) Limited	1 of 6 indicators (17%) Very limited
3	Socio-cultural	2 of 14 indicators (14%) Very limited	6 of 14 indicators (43%) Moderate
4	Psychological	1 of 2 indicators (50%) Moderate	1 of 2 indicators (50%) Moderate
Overall		**12 of 32 indicators (38%) Limited**	**12 of 32 indicators (38%) Limited**

Key: Vey high ≥80%; High 60-79%; Moderate 40-59%; Limited 20-39%; Very limited ≤19%

As to psychological empowerment, IFALE contributes considerably to developing participants' self-efficacy but not self-concept in Tigray and Amhara (1 of 2, i.e., 50%). IFALE played a vital role in participants' general development of self-confidence in a way that, according to Stromquist (2009), is a precondition for the enhancement of other domains of empowerment. Improved self-efficacy or confidence gains of IFALE participants in the two regions is an important capability enhancement that can be associated with one of Nussbaum's (2000) core capabilities: the capability to imagine, think, reason and use thought connection.

In sum, IFALE made important contributions to the empowerment of IFALE participants in 12 of the 32 indicators (about 38%) in each of the two regions which is considered to be limited (Table 7.18). Further advancement would depend on the concerted efforts of all concerned providers. The deficiencies in the implementation process, in particular the absence of the support factors in terms of a relevant curriculum and of building an efficient institutional system (as discussed in Chapter 6), have undoubtedly affected the contribution of IFALE to empowerment with possible implications for SD as well.

The difference between IFALE participants and between non-participants shows significant gains in Tigray in 5 of 10 political empowerment indicators (50%), in 4 of 6 economic empowerment indicators (67%), in 10 of 14 socio-cultural empowerment indicators (71%),

and in 2 of 2 psychological empowerment indicators (100%). In total, the IFALE participants and non-IFALE participants in Tigray had empowerment gains in 66% of the indicators. This may be because other parties than IFALE, including local leaders, agricultural extension workers, local media (especially the radio), FTCs, and women's associations, local culture and parents also played important roles. They served as independent sources of political and economic empowerment gains. This underlines that, in addition to IFALE, other non-formal and informal ways of learning are vital sources of empowerment. It confirms the claim by Walters et al. (2012), and Cooper and Walters (2011) that all forms of education and learning often work together, making it difficult to distinguish one from the other.

Having clarified that IFALE has led to empowerment gains in some of the vital areas for each of the empowerment dimensions, although differently in the two regions, the next chapter examines whether such empowerment has contributed to SD as well.

Chapter 8
IFALE as Education for Sustainable Development (ESD)

This chapter analyzes the interrelationship amongst IFALE, empowerment and SD. It is based on an analysis of the understanding of ESD in the policy and curriculum documents seen in relation to the empowerment gains from IFALE (Chapter 7). The document analysis is based on the ETP, the NAES, the National IFALE Curriculum Framework, the IFALE primers in Amhara, and the IFALE facilitator manuals in Amhara and Tigray. The document analysis is supplemented with data from observations of individual learners in order to examine the extent to which IFALE teaching of ESD is applied in practice.

8.1 IFALE and ESD

According to Huckle (2012), learning for sustainability can ensure a more viable future for humans:

> …..learning for sustainability is essentially about learning to value sustainable relations between people (social relations); between people and the rest of the bio-physical world (environmental relations); and between the elements that make up that non-human world (ecological relations). It is also about considering dominant and alternative forms of technology and social organization (political economy) and their potential to foster such sustainable relations. Changing social relations, of economic, political, and cultural power, shape (and are shaped by) environmental and ecological relations, and people are more likely to realize their common interest in sustainable relations if social relations are just and democratic (pp. 35-36).

Learning for sustainability puts the understanding of social, environmental, and ecological relations as well as the principal and possible forms of political economy at the center of the teaching and learning process in order to fulfill the needs of present and future generations. ESD is, thus, about learning for sustainability or abandoning unsustainable ways of life. The provision of IFALE to citizens who have received no other educational opportunity is a necessary contribution to SD and addresses equity and human rights concerns (MoE, 2010, p. 2).

As discussed in Chapter 3, UNESCO acknowledges eight value elements (main features) of ESD: an interdisciplinary and holistic curriculum; values and principles underpinning SD; critical thinking and problem solving skills; a multi-method approach in teaching and

learning; use of learning experiences in personal and professional life; participatory decision-making; local relevance (addressing local/global issues in the language(s) of the learners); and critical respect for others, for difference and diversity, for the environment and for the resources of the planet (UNESCO, 2006b, pp. 4-5; UNESCO, 2007, p. 6). These eight features are used to guide the analysis below of IFALE's contribution to ESD although their order has been changed to suit the focus of the analysis.

8.1.1 IFALE and the Design of an Interdisciplinary and Holistic Curriculum

The ETP (MoE, 1994, p. 16) underlines that 'basic education will focus on literacy, numeracy, environment, agriculture, crafts, home science, health services and civics'. According to the MoE (2008, p. 6), functional literacy enables peasants, pastoralists, women and youth to make sustainable use of knowledge and skills gained from the various development packages. Adult education builds on the needs of the beneficiaries and requires multi-sectoral activities (MoE 2008, p. 20).

The IFALE Curriculum Framework, as the blueprint of the country's curriculum contents, emphasizes that IFALE (unlike the curriculum for school children) should integrate contents closely linked with the life of adults and give immediate response to their needs (MoE, 2010c, p. 7). It should focus on agriculture, health, income generation, critical thinking, civics and ethics, environmental protection, gender, and social life (MoE, 2010c). The IFALE curriculum is, therefore, to be understood holistically rather than as a single subject, with contents related to the everyday life of the participants. This should increase their motivation to learn. Basic literacy and numeracy should be taught together with the contents of the development packages of different sectors of the country and, therefore, be interdisciplinary in nature.

The content analysis of the curricula materials in the Tigray and Amhara regions supports the interdisciplinary nature of IFALE laid out in the policy documents. The materials integrate topics on agriculture, health, traditional practices, the environment, etc. Although primers were not prepared until the end of 2015 in Tigray, the facilitator's manual (TBE, 2010) includes, for example, the following contents:

- √ Leading one's personal life in a planned way (Managing oneself and accomplishing activities timely based on a plan);

- √ Problem solving skills; increasing production (division of labor, the importance of training in increasing production, and wise use of money and resources);
- √ Democratic system (democracy and the rule of law, election, equality among people and love of one's country or patriotism, as well as the right of children and the physically disabled);
- √ Equality (in the family, in the work place) and the role of women in social organizations;
- √ Social and economic problems, such as fast development, population explosion and its effects on the natural environment, as well as harmful practices;
- √ Caring for the aged;
- √ Road traffic safety;
- √ Agriculture (domestic animals and animal products, modern animal production, dairy farming, poultry, keeping the health of domestic animals, preparing animal fodder, bee keeping, and irrigation—vegetable and fruit production) and preparation of food;
- √ Health (family planning, maternal and child care, personal hygiene and environmental cleanliness, and prevention of diseases, including HIV/AIDS); and
- √ Environmental care and climatic change.

The facilitator's manual in Tigray focuses on how adults should lead a quality life without compromising the planet, much in accordance with the eight features of ESD as understood by UNESCO (2006, 2007b).

The primers and facilitator manuals of Amhara (ABE, 2011a, 2011b; 2012a, 2012b) also have interdisciplinary contents aiming at a sustainable life:

- √ Awareness of oneself and one's environment; agricultural development (crop production, fruit and vegetable production, irrigation, poultry, bee-keeping, fishing, animal production, animal fodder production dairy, hides and skins, cooperatives);
- √ Natural resources and environmental protection (environmental pollution, potable water and water source care);
- √ Health care (personal and environmental health care, food and water, maternal and child care, HIV/AIDS, tuberculosis, malaria, addiction, physical exercise);
- √ Medicine usage;
- √ Population and family planning;

- √ Enhancing useful cultural practices (like *edir* and *equb*, hospitality, culture of supporting one another, arbitration to resolve conflict by elders, tolerance, supporting the aged and orphans), avoiding harmful cultural practices, and people demanding special support;
- √ Critical thinking and problem solving skills; gender (gender equality, traditional practices);
- √ Income generation schemes;
- √ Saving;
- √ Job creation skills, small and medium scale industries;
- √ Civics and ethics (building a democratic system, equity and equality, nationalism, election, community participation, rule of law);
- √ First aid and road traffic safety; and
- √ Sports.

Therefore, the curriculum contents in both Tigray and Amhara was designed in an interdisciplinary and holistic way to enable learners to perform in their daily life, to eradicate unsustainable practices, and to help the country achieve sustainable development towards 2025. However, absence of primers (in Tigray) and the lack of involvement of relevant experts from different sectors in teaching IFALE in the two regions (refer Chapter 6), negatively affect the program's capacity to contribute to empowerment and SD.

8.1.2 IFALE and Critical Respect for Others, for Difference and Diversity, for the Environment, and for the Resources of the Planet We Inhabit

In accordance with the NAES, the IFALE Curriculum Framework underlines that IFALE should enable participants to develop values, including respect for all human beings, working together for the common benefit despite differences, and using one's own skills and capacity to protect the environment (MoE, 2010c, pp. 5-6). More specifically, the contents of civics and ethics, environmental protection and wise use of resources in the IFALE Curriculum Framework aim to empower adult participants to respect difference and diversity among people (democratic culture) and to care for the environment and its resources. These contents are also included in the facilitator's manual of Amhara and Tigray and in the primers of Amhara. They are important requirements to create a sustainable society. The contents on caring for the environment aims to achieve one of Nussbaum's (2000) essential capabilities: 'being able to have concern for and live with others in the environment'.

According to the survey results, IFALE played a central role in improving practices of democratic culture in Amhara, but not in Tigray (refer 7.3.14). These concerned areas such as: respect for other individuals; respect for difference in perceptions and beliefs about an idea; respect for diversity due to difference in ethnicity, language or religion; and respect for everyone's civil and legal rights. This is essential for 'learning to live together' (Delors, 1996) and to achieve a sustainable society.

Enhancing IFALE's contribution to participants' respect for the environment and for the resources of the world at a practical level seems to require more efforts. According to survey participants' self-reports in both regions, learning in the program does not result in notable changes in practices of environmental protection measures although this was included in the IFALE curricula (refer 7.2.2). IFALE, therefore, has probably made no significant contribution to supporting practices of environmental sustainability.

8.1.3 IFALE and Sharing the Values and Principles Underpinning SD

According to Huckle (2008, p. 350), a major outcome of ESD should be moral and social responsibility deriving from moral and values education. Whether delivered by formal or non-formal means, citizenship education should support social justice and help present and future generations enjoy a decent life. Huckle (2008, p. 350) argues:

> Citizenship education should therefore promote political virtues (reasonableness, a sense of fairness, a spirit of compromise and a readiness to meet others half way) designed to ensure intragenerational justice and sustainability virtues (essentially the duty of the current generation to maintain the 'circumstances of justice' for future generations) designed to ensure intergenerational justice.

In line with this, IFALE must support positive attitudes towards sustainability and participation in sustainable decisions through developing adult participants' knowledge and skills of sustainability. ESD relates to eco-pedagogy[29], a discourse and an approach to education that seeks to educate planetary citizens to care, respect and take action for all life. Contents in IFALE curriculum materials in both Tigray and Amhara about democracy, rule of law, equality among people, gender equality in social organizations, caring for the aged, the physically disabled and orphans, tolerance, conflict resolution, environmental protection, and harmful practices are to enhance political and sustainability virtues in accordance with Huckle (2008).

[29] Eco-pedagogy is associated with Latin American educators, including Paulo Freire, Moacir and Leonardo Boff.

According to UNESCO (2001, p. 1), the final goal of ESD is to empower participants with the knowledge, skills, attitudes and values to produce the changes required to live in peaceful and sustainable societies. According to the survey results, IFALE participants considered the knowledge, skills, attitudes, and values that encourage and support citizens to lead sustainable lives as *very good* in Tigray (mean=4.58) and *good* in Amhara (mean=4.22) (Appendix E, survey question 82). This implies that IFALE appears to share many values and principles of SD. IFALE contributes to participants' improved practices of democratic culture activities and to better practices of social justice activities (for example, fair treatment of people irrespective of religious, gender and social background differences) in Amhara, but not so in Tigray.

IFALE seems to have meaningfully contributed to a range of areas (refer 7.1): knowledge of the voting age and of different political parties, and improved interest in becoming an elected representative (in Tigray and Amhara); knowledge of a law on electing representatives, confidence in terms of becoming an elected representative, and involvement in public institutions' decision-making and community development activities (in Tigray); and participation in voting (in Amhara). These are all characteristics of being a good citizen. This implies that in both regions IFALE embraces particular citizenship education elements that enhance important virtues of civilized life, a vital element of a sustainable society. However, in other areas, such as practices of conflict resolution (i.e., compromise, apology, direct discussion with the other party, and arbitration by elders or formal litigation), IFALE seems to have had no impact (refer 7.3.15).

8.1.4 IFALE and Endeavors to Address Critical Thinking and Problem Solving Skills of Its Participants

ETP (1994, p. 16) states that 'non-formal education will be concrete in its contents focusing on enabling the participants develop problem solving attitudes and abilities'. According to the IFALE Curriculum Framework (MoE, 2010b, p. 33), the source of many problems in Ethiopia is lack of critical thinking which is necessary to solve disagreements and everyday problems of society through discussion and consultation. The development of democratic culture can be speeded up through skills and capability enhancement and knowledge of democratic values, i.e. improvement of innovation skills, ability to distinguish facts from opinions, quest for problem solving ways, recognition of the decisiveness of team work, emancipation from exploitation, protection of unfair treatment, etc. (MoE, 2010c, p. 33). The IFALE curriculum has contents proposed in the National Curriculum Framework, such as problem solving skills,

conflict resolution through discussion about what needs to be done to achieve development, and self-confidence enhancement skills.

The facilitator's manual in Tigray addresses problem solving skills (TBE, 2010, pp. 11-16). The lesson objectives are, among others, to enable the participants to speak about the challenges they face in their life, identify methods of problem solving and solutions to their challenges, and compare common and new methods of problem solving. The manual also advises facilitators to make IFALE participants discuss the source of conflicts and the ways of resolving them in order to develop their problem-solving skills. Well-trained facilitators play a decisive role in making this happen.

Similarly, in the learner textbook (ABE, 2011a, p. 93; 2011b) of Amhara, adult participants are instructed in group discussions on the reasons for conflicts, types of conflict caused because of lack of awareness (critical thinking), and the way conflicts are resolved in order to develop their problem solving skills. As stated in the document, the main objective is to enable participants to understand problems, including conflicts between partners, divorce and problems related to children after divorce, revenge, theft, harassment/verbal abuse, and looking down on others, as well as to develop skills to solve such problems. Problem solving and critical thinking skills are necessary to achieve social or behavior change. They are vital elements for what Torres (2003) and Ouane (2008) call 'learning to change', a pillar of LLL. They can help learners be proactive in order to bring about dynamic changes necessary for human well-being or social, environmental, cultural and economic sustainability.

Although critical thinking and problem solving skills are what the curricula intend to enhance, the capacity of the facilitators to support their development was virtually non-existing in both regions probably due to lack of training in active learning methods and in teaching adults or andragogy (refer 6.1.3).

8.1.5 IFALE and the Application of a Multi-Method Approach in the Teaching and Learning Process

UNESCO (2007, p. 6) recommends the use of a multi-method approach in the teaching and learning process, for example art, drama, debate, experience, and other pedagogies. The NAES (MoE, 2008) aims:

> to facilitate the launch of a practice-focused adult education program, which supports the productive part of the society (adults) by mastering knowledge and skills to

> competently participate in the national development, and which complies with and serves as a tool for the different development strategies of the government (p. 10).

This implies a practice-focused adult literacy program to implement the various strategies that enable sustained and accelerated development of the country. According to the MoE (2008, p. 19), improving the methods and techniques of adult education delivery is essential. This necessitates identification and use of appropriate delivery methods and approaches for adult participants, skills development training for managers, supervisors and facilitators as well as preparation of training manuals based on adult education delivery approaches.

In Tigray, according to the IFALE facilitator's manual, the teaching and learning methods start from the experience, knowledge and skills of participants in order to achieve improved personal, community and national development (TBE, 2010). As stated in the introduction to the manual, the methods to be used are group discussion, practical observation, demonstration, question and answer, experience sharing, individual assignments, brainstorming, visits, role-play and drama. In the body text of the manual the use of group discussion is generally recommended.

In the introduction to the primers and facilitator's manual of Amhara, it is suggested that facilitators integrate literacy and numeracy with life skills and use, among others, discussions, question and answer, and field visit as methods in the teaching and learning process (ABE, 2011a, 2011b; ABE, 2012a, 2012b). However, the most frequently recommended method in the manuals is group discussion. Group discussion was used to some extent in the sessions in both Tigray and Amhara, but the teaching and learning method was overwhelmingly traditional question and answer (refer 6.1.3).

In both regions, the lack of extensive use of active learning methods affects learners' self-confidence and makes them less able to act and engage in solving everyday challenges and, thereby, lead sustainable lives.

8.1.6 IFALE and Implementation of Participatory Decision Making in Teaching and Learning

Within a sustainability frame of mind, IFALE should encourage its participants to participate in decision-making. According to the IFALE Curriculum Framework, IFALE participants should actively participate in content selection and lesson design (MoE, 2010c, p. 6). Although the facilitator's manual generally serves as the starting point for what should be taught, the main learning contents is to be initiated by the participants during their discussions

of the problems encountered in their daily life and the solutions they propose (see, e.g., TBE, 2010, p. v). While promoting 'learning to do' (adaptation to the learners' future work environments) that is a component of LLL (Delors, 1996), participatory decision making in the classroom gives learners the opportunity to express their opinions, and develops their sense of ownership of the teaching and learning process. This may enhance their sense of well-being and comfort with the way the classroom functions (Stefanou, Perencevich, DiCintio, & Turner, 2004). Participatory decision-making is important for a sustainable society.

The observation of the lesson sessions in Tigray shows that facilitators took the decisions (Appendix B, question 18). In Amhara, school teachers (who served as facilitators) also strictly followed the contents in the primers and manuals. Learners in the two regions were not encouraged to participate.

8.1.7 IFALE and Integration of Learning Experiences in Daily Life

The NAES and the IFALE Curriculum Framework expect participants to apply what they have gained from IFALE in their daily activities if they are to contribute to accelerated and sustained development for Ethiopia to become a middle-income country by 2025. Access to information enables participants to learn new skills and to utilize the gains to improve their life and productivity (MoE, 2008, p. 6). Besides, the facilitator manuals and primers encourage adult participants to use what they have learned to improve their livelihoods and quality of life, among which are health and use of latrines. These can be important to improve the capability of 'bodily health' (Nussbaum, 2000) and support well-being and environmental sustainability.

Some of the survey results reveal that IFALE participants in both Tigray and Amhara applied what they learned. The significant empowerment gains in saving practices, and practices of specific traditional activities and democratic culture activities are examples (refer Chapter 7). IFALE participants in both regions have improved, amongst others, their practice of saving, self-efficacy, and in changing harmful traditional activities. Comparisons between IFALE participants and non-participants show that the former applied maternal and child care, and some democratic culture and social justice activities more than non-participants (in Amhara) and displayed more 'modern' values of wanting an additional child (in Tigray) (refer 7.3).

This means that IFALE participants have integrated their learning experiences in their everyday life in some of the critical areas.

Four household observations of IFALE participants (two in each region) were part of the study in order to establish participants' practice in terms of housekeeping, personal hygiene and latrine use. According to the participants in both regions, their practices changed positively after joining the IFALE program. However, the observations showed that the participants in Tigray live in cleaner and better-organized houses, and have relatively better latrines than was the case in Amhara. Figure 8.1 shows that in Tigray kitchen items are better ordered, cleaner and of better quality than in Amhara (Figure 8.2). The latrine in Tigray (Figure 8.3) is also better than the one in Amhara (Figure 8.4).

Health and hygiene also concern the living conditions of the participants. In the case of Tigray, the family and domestic animals were separated either by a separate shelter (Figure 8.5) or by a door. In Amhara, the families shared the room with the domestic animals which, they believe, helps keep the family warm during the cold nights. In another, there was a simple wooden partition between the family and their cattle and sheep (Figure 8.6). Based on the observation results, participants in Tigray do relatively better than in Amhara in terms of application of knowledge from IFALE in their own lives. However, considering the findings from both the survey and the observations, participants in the two regions all applied some, but different knowledge from the IFALE program which reflects important features of ESD.

Figure 8.1: Kitchen items in the house of an IFALE participant in Tigray
Source: Observation (November 2013)

Figure 8.2: Kitchen items in the house of an IFALE participant in Amhara
Source: Observation (November 2013)

Figure 8.3: IFALE participant's latrine in rural Tigray
Source: Observation (November 2013)

Figure 8.4: IFALE participant's latrine in rural Amhara
Source: Observation (November 2013)

Figure 8.5: IFALE participant's house in Tigray with a separate shelter for domestic animals
Source: Observation (November 2013)

Figure 8.6: IFALE participant's house in Amhara partitioned between the family and domestic animals
Source: Observation (November 2013)

8.1.8 IFALE and Local Relevance: Addressing Local and Global Issues and the Language of the Participants

One of the general objectives of ETP is 'to bring up citizens who can take care of and utilize resources wisely, who are trained in various skills, by raising the private and social benefits of education' (MoE, 1994, p. 7). A specific objective refers to promoting 'relevant and appropriate training through formal and non-formal programs' (MoE, 1994, p. 8). These objectives endorse empowerment of participants for sustainability.

In line with the ETP, NAES articulates the importance of the relevance of adult education by stressing that adult participants will be motivated to participate if the program is related to their needs and daily activities, and is useful for solving their problems (MoE, 2008). According to the IFALE Curriculum Framework, all regions in the country should emphasize locally relevant contents. That is why basic reading, writing and computing are integrated with the teaching of the contents of agriculture, health, income generation, critical thinking, civics and ethics, environmental protection, gender, and social life issues that are understood as essential life skills. It means that IFALE should have the same emphasis on life skills as on basic literacy and numeracy skills.

The IFALE Curriculum Framework and the primers plan for contents that are to be relevant to both lowlanders—whose life mainly depends on animal husbandry—and highlanders who

live from crop production. Officials at the MoE and regional educational officials stated in the interviews (MoE policy maker interview 2, Addis Ababa April 2013; regional IFALE focal person interviewee, Tigray, May 2013) that learning materials should be designed taking regional and sub-regional relevance into consideration that meet the demands of the adult participants, for example of the pastoralists in the lowlands and the farming communities in the highlands. This study was done in the highlands of Ethiopia and interviews with IFALE participants revealed that the contents of the materials is relevant to them since they believe that it helps improve their lives (refer Appendix A, 1, III, questions 3 & 6).

According to the ABE (2011a, b; 2012a, b), the contents of the primers integrate life skills with literacy and numeracy through the assessment of participants' needs and problems. IFALE enables participants to understand themselves and their surroundings and develops their attitudes. It contributes to personal and national development and to personal initiative in the fight against poverty, eventually providing them with opportunities to be productive citizens. The contents in the teaching materials of Amhara correspond with the development packages of the country, revealing its relevance to the participants' lives. It addresses, for example, agriculture and rural development, health, natural resources and environmental protection, and change of specific practices. The facilitator's manual in Tigray integrates similar contents in addition to contents on global warming which can have both local and international significance.

The language of instruction in both regions is the participants' mother tongue, i.e. Tigrigna in Tigray and Amharic in Amhara. The contents in both regions seem to be authentic and relevant to the lives of the participants. Relevant contents delivered in the mother tongue can help learners engage in overall efforts to achieve economic, social, environmental, and cultural sustainability for Ethiopia to become a middle-income country by 2025.

8.2 Conclusion

The document analysis and survey results show that in Amhara IFALE has integrated five of the eight UNESCO (2006b, 2007) ESD features. In Tigray IFALE embraced only four (half) of them. In particular, the use of critical thinking and problem solving skills, a multi-method approach in the teaching and learning process, and participatory decision-making were not apparent in the teaching and learning of IFALE neither in Tigray nor in Amhara. In addition, in Tigray IFALE did not enhance critical respect for others, for difference and diversity, for the environment and for the resources of the planet (Table 8.1). This is partly due to

weaknesses in the implementation of the strategies of a relevant curriculum and an efficient institutional system (refer Chapter 6).

Table 8.1: ESD features embraced in IFALE in Tigray and Amhara

S. No.	ESD features	Tigray Yes /No	Amhara Yes /No
1	Design of an interdisciplinary and holistic curriculum	√	√
2	Critical respect for others, for difference and diversity, for the environment, and for the resources of the planet we inhabit	**X**	√
3	Sharing the values and principles underpinning SD	√	√
4	Endeavors to address critical thinking and problem solving skills	**X**	**X**
5	Application of a multi-method approach in the teaching and learning process	**X**	**X**
6	Implementation of participatory decision making in teaching and learning	**X**	**X**
7	Integration of learning experiences in daily life	√	√
8	Addressing local and global issues and the language of the participants	√	√
Overall		**Fulfillment of 4 of 8 (half) features**	**Fulfillment of 5 of 8 (most) features**

Key: Yes: √; No: X

Nevertheless, the implementation of IFALE did lead to improvements in some areas of political, economic, socio-cultural and psychological empowerment domains that could support the realization of SD in some ways. This particularly concerns participants' psychological empowerment in terms of self-efficacy (in both Tigray and Amhara). Enhanced self-efficacy can lead to gains in other dimensions of empowerment and thus contribute to the development of a sustainable economy, society, environment and culture in the country.

However, the fact that IFALE made no considerable contribution to most of the other indicators of empowerment (only 12 of 32 indicators) and to only a restricted number of ESD features in the two regions shows that the program's overall contribution to SD is limited, although somewhat stronger in Amhara than in Tigray.

Chapter 9
Major Findings, Key Conclusions, and Significance of the Study

In this final chapter, the most important findings are first discussed in view of the findings of previous studies on adult education (Chapter 3). This is followed by brief answers to each of the research questions (Chapter 1) and some reflections on the conclusion. The underlying assumptions and the analytical model for the study (Figure 4.7) are considered. The chapter finishes with a brief discussion of the significance of the study and its implications for further research and for policy-making.

9.1 Implementation and Contribution of IFALE

The study explores the implementation and contribution of IFALE to empowerment and SD in Tigray and Amhara regions using mixed methods design. The qualitative methods include interviews, observations, and document analysis. There were 91 informants at different levels and in different functions. In addition to classroom and center observations, a few (four) IFALE participants were observed in terms of their practice at their homes. The quantitative analysis was based on a survey undertaken with 376 survey participants. Of these 89 were IFALE participants and 97 were non-participants in Tigray compared to 93 IFALE participants and 97 non-participants in Amhara.

9.1.1 Implementation of IFALE

According to NAES, the IFALE curriculum contents should be based on different development packages, including from agriculture and health, in order to be relevant to and improve the lives of the adult participants. Besides, efforts should be made to build an efficient institutional system. In contrast to previous research, both strategies are in this study considered to be essential for the accomplishment of the IFALE policy in Ethiopia. The understanding of the strategies and their supporting factors appear in the analytical model displayed in Figure 4.7. The model was developed based on a critical review of existing research and of policy documents in Ethiopia.

According to the results of interviews, observations and document analysis, the strategy of a relevant curriculum in Tigray lacked most of its support factors and was thus unsuccessful.

These were: primers and other additional materials; qualified and autonomous (independent) officials and experts; well-trained facilitators; use of active learning methods; motivation of IFALE participants; use of learning aids (facilities); and learning conditions. In Amhara, the strategy of a relevant curriculum had most of its support factors, except for lack of active learning methods in the teaching and learning, the presence of unqualified and unmotivated facilitators, and the availability of some officials and experts that need training in adult and literacy education. Amhara, therefore, was partly successful with regard to the strategy of implementing a relevant curriculum for IFALE.

The results of interviews, observations and document analysis also show that practically all the support factors of the strategy of building an efficient institutional system were missing in Tigray. These are: strong leadership and motivated officials, experts and facilitators; shared understanding of IFALE by responsible officials and experts; clear policy direction; favorable working conditions; involvement of stakeholders; and an adequate budget. In Amhara, some of the support factors were also not at work: facilitators were not motivated because of a low salary; there was no clear non-formal and adult education policy frame; collaborators did not participate in the teaching and learning process; and the budget was insufficient to train officials and experts who lacked qualifications in adult and literacy education, provide additional training for facilitators and school teachers that conduct IFALE sessions, and prepare additional reading materials for participants.

The comparison of the two regions shows that the implementation of IFALE in terms of the two strategies was partly successful in Amhara while it was not in Tigray. According to Comings et al. (1995) weak program implementation causes inefficiency, for example high dropout rates and low skill levels of participants. The deficient implementation of the strategies also affects the potential contribution of IFALE to participants' empowerment and SD.

9.1.2 IFALE and Empowerment

The study shows that the support factors, including agriculture and development, health, women affairs, and youth and social affairs sectors, participated to a limited degree in implementing the IFALE policy. Although the IFALE Curriculum Framework and the regional curriculum were developed in collaboration with various sector ministries as a way to support SD, only the education sector participated in its implementation through teaching. Empowerment gains from IFALE can, therefore, only be attributed to the teaching and

learning by IFALE staff, regular facilitators, and voluntary primary school teachers. The collaborating sectors did, however, contribute independently (or as external factors) to the empowerment of IFALE participants (and non-IFALE participants) together with other external factors, such as FTCs, local media, local leaders, farmers' and women's associations.

In accordance with Page and Czuba (1999) and Kagitcibasi et al. (2005, p. 476), empowerment in this study are at the following levels: social (higher social participation scores); family (changes in family dynamics and attitude towards fertility); and personal (more positive self-concept and self-efficacy). At the societal level, IFALE has contributed to participation in voting (in Amhara) and to developing an interest in becoming an elected representative (in Tigray and Amhara). At the personal level, knowledge of the minimum voting age and political parties (in both regions), confidence to be a local representative for an election, and knowledge of a law on electing representatives (in Tigray) are outcomes of IFALE which can result in actions at the community level.

At the societal level, IFALE participants have political empowerment gains, including participation in decision making in public institutions, membership of community organizations, and participation in community development activities (in Tigray) which reflect citizenship obligations and likely wider contact with local people. The findings are consistent with adult literacy impact studies conducted in Kenya (Carron et al., 1989), in the US and the UK (Stromquist, 2008), and in Turkey (Kagitcibasi et al., 2005). Burchfield et al. (2002a, 2002b) also found the knowledge and practices of political participation of women in literacy programs in Nepal and Bolivia to be higher than for non-participant women.

The economic empowerment benefits from IFALE in terms of increase in saving practice (in Tigray and Amhara) and involvement in income generation schemes (in Tigray) are gains at the personal level that can also have implications at societal level. These results support Cameron and Cameron (2005) who claim that literacy is a contributor to livelihoods improvements from saving opportunities and creating supplementary income.

The changes that IFALE has brought in terms of practices of traditional activities in both Tigray and Amhara affect the culture and have value at both individual and societal levels. At the family level, these also include the wish to have fewer children for economic, social or psychological reasons (in Tigray), gender equality in decision making in the household as well as practices of family planning and maternal and child care (in Amhara). Other key benefits of IFALE at the societal level are enhanced democratic culture activities and social

justice activities (in Amhara). Egbo (2000) in his study on literate women in Nigeria, found that women gained more knowledge of their rights, making them participate in community matters and household decisions. In the case of Turkish women, functional adult education led to positive changes in the value of children, but not in household decision making (Kagitcibasi et al., 2005).

Psychological empowerment at the personal level is a major ingredient of social capital. IFALE can help since it can break down barriers of isolation, particularly for illiterate women whose lack of social networks hampers their participatory practices in development (Stromquist, 2009). In Tigray and Amhara, the self-efficacy gains from IFALE at the personal level appear to facilitate social engagement, political behavior, and economic opportunities of participants. The gains may produce what Rodger and Street (2012) refer to as a new sense of identity or the confidence to contribute significantly to the public sphere. However, IFALE's lack of contribution to self-concept is in opposition to the study on a Turkish functional adult literacy program (Kagitcibasi et al., 2005) where important change was reported in the self-concept among female participants, but none as far as self-efficacy is concerned. Other studies (e.g. Prins, 2008; Ash & Parrot, 2001; Burchfield, 1977; Archer & Cottingham, 1996) also show considerable contributions of adult literacy programs to developing self-confidence, self-efficacy and self-respect.

The findings regarding IFALE learners' empowerment gains in the two regions represent some of Nussbaum's (2000) core capabilities and the pillars of education that underpin LLL (Delors, 1996; Ouane 2008; Torres, 2003; Preece, 2013). Better self-efficacy and improved traditional practices in Tigray and Amhara enhance participants' capabilities to imagine, think, reason, use thought connection, form a perception of the good and start critical reflection. This supports learning to be, i.e. the development of IFALE participants' mind, body, intelligence and sensitivity.

9.1.3 IFALE for Empowerment and Sustainable Development

The political, economic, socio-cultural, and psychological empowerment achievements from IFALE can contribute to SD in Ethiopia. IFALE as ESD supports SDG 4 (UNESCO, 2015), i.e. 'sustainable lifestyles, human rights, gender equality, culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to SD by 2030'. In the two regions IFALE helped participants develop knowledge, skills, attitudes and

values needed to shape a sustainable future to a certain degree. These gains address the four components of SD, namely the environment, society, the economy, and culture.

The analysis of the NAES, the National IFALE Curriculum Framework, and the teaching and learning materials of IFALE as well as the self-reported survey results show that most of the major features of ESD articulated in DESD (UNESCO, 2006b, pp. 4-5) have been embraced in Amhara. These include: the design of an interdisciplinary and holistic curriculum; critical respect for others, for difference, and diversity, for the environment, for the resources of the planet; the values and principles underpinning SD; integration of learning experiences in day-to-day life; and discussions of local and global issues in the language the participants understand or use. In Tigray, four of the features embraced in Amhara were supported, excluding critical respect for others, for difference, and diversity, for the environment, for the resources of the planet. In both regions, IFALE gives low emphasis to critical thinking and problem solving skills, the participation of participants in decisions about the way they learn, and the use of a multi-method approach in the teaching and learning process which affects the capacity of participants to support SD.

In conclusion, IFALE has contributed to improving areas of empowerment at individual, family and community levels through enhancing learning and capabilities. IFALE fulfills most of the ESD features in Amhara but only half of them in Tigray. The contribution of IFALE to SD is higher (though moderate) in Amhara than in Tigray (where it is limited). Therefore, the ambitious plan for IFALE to support SD in order for Ethiopia to be a middle income country by 2015 is not matched by the reality on the ground.

9.2 Answering the Research Questions

While the previous section discussed the general findings in light of former research, the purpose in the following is to answer each of the research questions concisely.

9.2.1 How successful is the implementation of IFALE in terms of the strategy of a relevant curriculum?

In Tigray, the strategy of implementing a relevant curriculum was not successful since almost all the support factors were missing (refer 9.1.1). IFALE participants did, however, have good access to the program since there are IFALE centers in every village, a facilitator manual guided the teaching, and the availability of trained facilitators was better (but not adequate) in Tigray than in Amhara. By contrast, in Amhara most of the support factors for the strategy

were present, except for the use of active learning methods, supply of learning aids and qualified facilitators. In addition, some IFALE officials and experts needed training related to adult education. The implementation of IFALE in terms of the strategy of a relevant curriculum was unsuccessful in Tigray but partially successful in Amhara.

9.2.2 How successful is the implementation of IFALE in terms of the strategy to build an efficient institutional system?

There was an independent organizational set up for IFALE from the regional bureau down to the centers in Amhara, but not in Tigray. The implementation of IFALE in terms of the strategy of building an efficient institutional system lacked virtually all support factors in Tigray despite clear strategy direction in the NAES. In Amhara, most support factors were in place, except for a clear policy frame, the participation of collaborating sectors in teaching, and motivated facilitators to conduct the teaching and learning process (refer 9.1.1). Therefore, the implementation of IFALE as regards the strategy was unsuccessful in Tigray but partly successful in Amhara.

9.2.3 What is the contribution of IFALE to political empowerment?

IFALE contributed more to political empowerment in Tigray than in Amhara. In Tigray participants were empowered in most of the political indicators (7 of 10, i.e. 70%) in contrast to Amhara (4 of 10, i.e. 40%). In both regions, the gains were particularly in participants' knowledge of the voting age and political parties, and their interest in becoming an elected representative.

In Tigray, IFALE increased the confidence of the participants to become an elected representative, provided knowledge of a law on electing representatives, and promoted participation in community development activities and decision making in public institutions in Tigray. This was not the case in Amhara. In contrast, IFALE increased participants' voting participation in Amhara as opposed to Tigray. In none of the regions did IFALE lead to significant political gains in terms of participants' membership of community organizations, and knowledge of community development committees. The contribution of IFALE to political empowerment is higher in Tigray (high) than in Amhara (moderate).

9.2.4 What is the contribution of IFALE to economic empowerment?

IFALE's overall contribution to economic empowerment is small in both regions. It did, however, contribute to increasing the saving practice of IFALE participants in both regions and improved participant involvement in income generation schemes in Tigray as opposed to Amhara. IFALE made an insignificant contribution to improved practices of environmental protection measures and agricultural technologies for improving production, financial contributions for productive investment and mutual support, or credit access for income generation among participants in both regions. Overall, IFALE enhanced less than half of the indicators of economic empowerment (2 of 6, i.e. 33%) in Tigray and (1 of 6, i.e. 17%) in Amhara. The contribution of IFALE to participants' empowerment was higher, though limited, in Tigray than in Amhara where it was very limited.

9.2.5 What is the contribution of IFALE to socio-cultural empowerment?

IFALE's contribution to socio-cultural empowerment is very low in Tigray (2 of 14 key indicators, i.e. 14%) but relatively better in Amhara (6 of 14 indicators, i.e. 43%). IFALE has contributed to reducing traditional practices in both regions, but played a role in limiting the number of children only in Tigray. By contrast, IFALE improved practices of democratic culture, maternal and child care, family planning, social justice activities, and gender equality in family decision making in Amhara as opposed to Tigray.

IFALE has not enhanced practices of HIV/AIDS measures, family cohesion and conflict resolution or enhanced participants' knowledge of laws protecting women and children, laws against gender discrimination, or knowledge of gender equality in development in either of the two regions. Generally speaking, the contribution of IFALE to socio-cultural empowerment is better, though moderate, in Amhara than in Tigray where it is very limited.

9.2.6 What is the contribution of IFALE to psychological empowerment?

In both regions, IFALE played a moderate role in improving participants' psychological empowerment gains (1 of 2 indicators, i.e. 50%). IFALE contributed to improving self-efficacy, but not the self-concept.

9.2.7 How does IFALE support SD?

IFALE has been partly successful in Amhara but unsuccessful in Tigray in terms of implementing the strategies of a relevant curriculum and an efficient institutional system. This may explain the limited overall empowerment gains (12 of 32 indicators of empowerment in each region) and the failure to fulfill all ESD features (only 5 of 8 ESD features in Amhara and 4 of 8 features in Tigray). This has led to moderate support to SD in Amhara but limited support in Tigray.

IFALE's contribution to socio-cultural empowerment gains in terms of improved practices of traditional activities (in Tigray and Amhara), as well as democratic culture activities, social justice activities, maternal and child care, family planning and gender equality in household decisions (in Amhara) address unsustainable social and cultural challenges. The contribution of IFALE to psychological empowerment expressed in terms of self-efficacy (in Tigray and Amhara) enhances the self-confidence needed for moving towards sustainability. It is a precondition for improved empowerment in the political, economic and socio-cultural domains that support a sustainable economy, society, environment and culture.

The important contributions to participants' political empowerment in terms of political interest, knowledge and participation, and to economic empowerment in terms of saving practice (in Tigray and Amhara) and involvement in income generation schemes (in Tigray) respond to citizenship roles and economic growth demands that can lead to sustainable livelihoods. IFALE has helped in focusing on knowledge, skills, attitudes and values, encouraging and supporting citizens to lead sustainable lives in both regions.

Moreover, IFALE fulfills some of the important features of ESD in both regions. IFALE

1. is interdisciplinary and holistic since it integrates various topics into one, for example, agriculture, health, environment, conflict resolution, traditional practices, and income generation;
2. is values-driven and capable of promoting political and sustainability virtues: reasonableness, a sense of fairness, and readiness to meet others half way;
3. integrates or applies learning experiences in the everyday life of its participants. IFALE participants appear to apply their gains, e.g. used latrines and changed specific practices;
4. addresses local as well as global issues and uses the language(s) most commonly used by its participants. IFALE treats contents such as natural resources and environmental

protection (in Tigray and Amhara) as well as global warming (in Amhara). IFALE uses Tigrigna in Tigray and Amharic in Amhara as the medium of instruction.

However, whereas IFALE develops participants' critical respect for others, for difference and diversity, for the environment, and for the resources of our planet in Amhara, this is not the case in Tigray. IFALE does not apply a multi-methods approach in teaching and learning, carry out participatory decision-making for its participants to decide on what, how and when they should learn, or address critical thinking and problem solving skills of participants in the two regions.

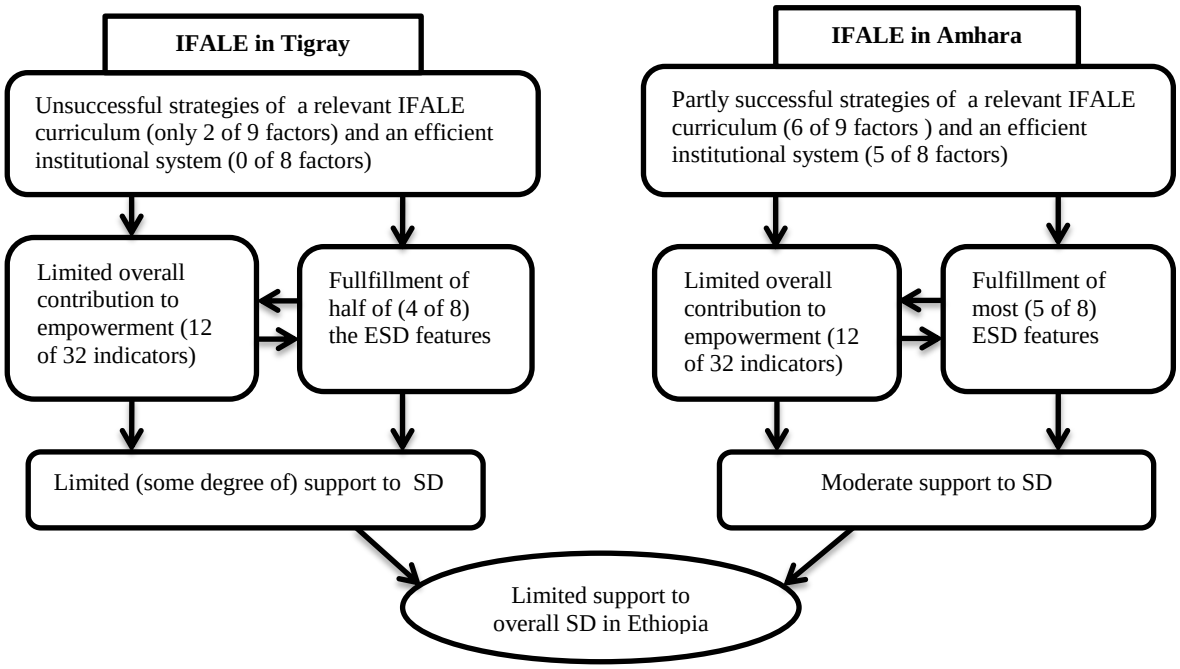

Figure 9.1: Summary of results of the implementation and contributions of IFALE to empowerment and SD

Overall, IFALE in Amhara has supported SD to a moderate extent through carrying out partly successful strategies of a relevant curriculum and an efficient institutional system, contributing to certain areas of empowerment, and fulfilling most features of ESD (Figure 9.1). In Tigray, IFALE has supported SD to a limited extent through the two strategies, contributing to restricted areas of empowerment and embracing only half of the features of ESD. IFALE's support to SD in Ethiopia, i.e. to becoming a middle income country by 2025, seems therefore to be limited.

9.3 Reflections on Conclusion

Ethiopia has witnessed rapid economic growth, with real gross domestic product (GDP) growth averaging nearly 11% between 2003/4 and 2014/2015 (World Bank, 2016c). Ethiopia also has an ambitious plan to become a middle-income country by 2025. Nevertheless, the

Ethiopian government and the ruling party (EPRDF) have openly declared that inefficiency and poor governance are major challenges for the country's development (Walta Information Center, 2015). Despite a well-articulated NAES at country level and corresponding regional plans, poor IFALE implementation of the strategies of a relevant curriculum and an efficient institutional system in Tigray is likely to be due to the same reason.

Ethiopia has no policy frame to support IFALE which reflects absence of political will to implement the program. In Tigray, there is neither involvement of relevant sectors in the teaching and learning process nor follow up on the functionality of the regional IFALE board and technical committee. IFALE is not adopted as an essential plan for the region, with qualified staff placed in key positions playing leadership roles and having an adequate budget. By contrast, the strategies of a relevant curriculum and an efficient institutional system were moderately successful in Amhara. The regional government bureau of education owns the IFALE program and has appointed a capable leadership in the bureau and weredas to implement the program.

Successful implementation of the two strategies could lead to increased self-confidence, and independent, critical thinking and reflection of the participants. This could facilitate empowerment, promote environmental, societal, economic, and cultural considerations for development and lead to a better quality of life. However, as reported in this dissertation, IFALE's contribution is limited in terms of empowerment gains, fulfilment of ESD features and, therefore, also SD efforts.

The political empowerment gains discussed earlier may, nevertheless, enhance participants' medium and long term capability to live with others and have more control over the environment. The economic empowerment gains may also develop the capability to control the environment or ability to own property, thus demonstrating improved income and wealth among IFALE participants. This could support national and human development goals.

The socio-cultural and psychological empowerment gains could expand the participants' capability to imagine, think, reason and use thought connection as well as form a perception of the good which could all help critical reflection. It could signify learning that would contribute to participants' development in terms of mind, body, intelligence and sensitivity. Socio-cultural empowerment gains could enhance the capability for bodily health of mothers and children and facilitate learning to proactively guide change among participants for their well-being and better livelihoods.

Thus, IFALE could achieve even more significant empowerment gains in most indicators at personal, family, and societal levels if there were a more genuine response to the NAES and the regional plans. Enhanced learning, capabilities and livelihoods could make IFALE an important program in support of SD in its own right. If adult literacy education is to empower learners and support SD, government bodies must show political commitment. This commitment should be expressed, amongst others, in the inclusion of adult (literacy) and non-formal education as part of the education and training policy, the attainment of educational quality, relevance, a strong institutional system, an adequate budget to provide well-trained officials, experts, and facilitators, and appropriate curriculum materials and facilities.

9.4 Significance of the Study

The topic for this dissertation is relatively under-researched in the field of adult literacy education. Previous research has more commonly focused on impact assessment than on the empowering potential of adult literacy education. This study shows that gains in political, economic, socio-cultural and psychological empowerment through an adult literacy education program have the potential to support a sustainable economy, society, environment and culture. This is an important contribution to comparative and international education and to policy making in Ethiopia and elsewhere.

9.4.1 Significance for Academia

The philosophy of causation or evidence-based policy grounded in the theory of evidence for use formed the basis of the analysis of the implementation and contribution of IFALE to empowerment and SD in Ethiopia. The horizontal search of literature and MoE documents served to identify key support factors that guided the analysis of the reality in the two regions. Its application in the study shows the relevance of the underlying philosophy for the examination of policy issues.

The study also contributes to the general field of international and comparative education through its comparative analysis of Tigray and Amhara. It helps fill the general gap on (recent) adult education studies in Ethiopia, in general, and on literacy education, in particular. In terms of its specific findings, IFALE's contribution to improved saving practices in Tigray and Amhara as well as participation in income generation activities represent new knowledge regarding economic benefits of ALE. The fact that some of the findings in this study are inconsistent with former studies may underline that studies and findings need to be contextualized and that the contributions of one program cannot necessarily be generalized to

others due to the differences pertaining to content and approach. Careful judgements should be made since *there* is not the same as *here*.

The findings that IFALE can contribute to developing essential capabilities are important to comparative and international education. In this dissertation, they include: practical reason or perception of the good and critical reflection on it (e.g. improved traditional cultural practices and better self-efficacy); bodily health for mothers and children (e.g. improved maternal and child care and family planning); control over one's environment (e.g. participation in politics, and better saving practice and participation in income generation schemes that result in property ownership); and affiliation to others (e.g. better democratic culture and social justice activities).

The dissertation focuses on knowledge and practices of learners in political, economic, socio-cultural and psychological empowerment which was examined in terms of integrated knowledge of literacy, numeracy and life skills. This is an important contribution to the existing knowledge on adult education since most studies are limited to analyzing literacy and numeracy tests to explore literacy and numeracy outcomes. The focus on the various dimensions of empowerment is an area that is worthy of future research.

Furthermore, a large-scale assessment of IFALE's contributions to SD in all regions of Ethiopia could help understand factors that promote or limit the successful implementation of IFALE. A tracer study of neo-literates, for example those who graduated from the IFALE program in Tigray and Amhara in 2013, could help examine intermediate and long term impacts of empowerment gains from IFALE at personal, family, community and society levels.

The implementation of IFALE was limited to two major strategies believed to be vital for the purpose of the study. One could argue that the implementation of IFALE could have been investigated differently by considering other factors (for example learners' attendance, cost effectiveness, mastery of basic literacy and numeracy, SMART learning objectives), and literacy programs that were also part of IFALE but implemented by NGOs. Thus, other causal cakes with their supporting ingredients could lead to effective IFALE depending on the nature of the study.

Future studies on economic benefits of ALE could also focus on other areas than those included in this study, for example safe and efficient use of equipment, access to insurance,

use of appropriate technologies to sustain the natural environment, and capabilities in social cooperation leading to improved advocacy and/or ability to compete in markets.

9.4.2 Significance for Policy Makers

Important lessons can be gained from the analysis of the two regions of Tigray and Amhara because of their different implementation practices. The better implementation of IFALE in terms of the strategies of a relevant curriculum and an efficient institutional system in Amhara can serve as 'best practice' that can be carefully adapted not only to Tigray but also to other regions of Ethiopia. The political gains achieved among IFALE participants in Tigray can also serve as 'best practice' by considering relevant factors for Amhara and in other contexts. Tigray and other regions can learn from the socio-cultural gains of IFALE in Amhara.

The study results show that the federal and regional governments have not displayed strong political will in order to achieve a successful implementation of IFALE. While the preparation of NAES is an important step, there is no emphasis on IFALE in the wider ETP. This prevents appropriate provision of the program. Adult education and lifelong learning, in general and adult literacy education, in particular, should be central components of the education policy in Ethiopia in order to ensure that relevant strategies and plans can be successful in reality. This needs to be reflected in political will and support for important factors, such as an adequate budget, training and support in adult and non-formal education, sufficient learning materials, and an appropriate learning environment.

In addition, the appointment and recruitment of dedicated IFALE staff at all levels could form a critical mass to champion adult functional literacy and IFALE in order to support the country's advance towards becoming a middle-income nation by 2025. To help promote IFALE, fora at all levels and for all parts of Ethiopia could discuss the intentions and share the provisional experiences and outcomes of IFALE. Such initiatives could help bridge the gap identified in the study between the policy rhetoric and the reality on the ground.

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Appendices

A. Interview Protocols

1. Interview Protocol for IFALE Participants

Different people can have a different understanding of literacy education due to various reasons. As I would like to know about your understanding the state of adult literacy education, as well as contributions to learner empowerment and SD, I will interview you for approximately one and half hours; I am going to take notes and audiotape the interview.

I. Personal Information

1. Please tell me about yourself
   - Name
   - Position
   - Center where you learn
   - How were you recruited to Adult Literacy Education (ALE)?
   - For how long have you attended the Adult Literacy education (ALE)?
   - Why have you joined the ALE classes?

II. Goal of ALE

2. What do you think is the purpose of ALE/ Integrated Functional Adult Literacy Education?

III. ALE Learning and Empowerment

3. What are your perceptions about the ALE? Explain in detail.

   Important issues to be addressed include views on:

   - How the motivation of the learner was in relation to ALE
   - What expectations they have had about the program
   - The extent to which ALE satisfies the learner's needs and expectations. Why the learner feels it satisfies/ doesn't satisfy his/her needs and expectations
   - What the learner has gained by joining the ALE
   - Why the learner thinks all people who don't read, write and count well in his/her village can't join ALE
   - What the learner thinks is missing from ALE or what he/she would like to be added to the learning materials
   - What should be excluded from the ALE
   - Whether or not there were dropouts and why he/she thinks people drop out of ALE, Women? Men? Boys? Girls?
   - What learning materials he/she uses in adult literacy classes
   - Explanation on how accessible the materials are
   - How suitable the available learning materials to the learner's learning needs are.

- Explanation on the reasons for the suitability/ non-suitability.
- The class-size of where he/she learns; how many participants there are
- How he/she evaluates the facilities and equipment at his/her ALE center
- How one feels about the quantity and quality of facilitators at his/her center
- How appropriate one thinks are the facilitators' methods used in adult literacy classes? (Why he/she says so)
- What challenges, difficulties one encounters as a learner? (Personal? Domestic? Financial? Psychological? Administrative? Or any other?)

4. Would you please tell us in detail about your learning?

   Important issues to be addressed include:

   - Talking about what he/she has learned in his/her adult literacy class this year.
   - What kinds of writing the learner does and how the learner participates into the decision about topics
   - Specific examples of what kinds of reading the learner does
   - Specific examples of what kind of basic numeracy the learner does
   - Specific examples of what kind of basic life skills the learner does (or gains)
   - Explanation on how one learns (inside and/or outside the class using self-study)
     Specific example of how one learns basic reading and writing
     Specific examples of how one learns basic numeracy (calculation)
     Specific examples of how one learns basic life skills
   - What materials, for example books, the learner reads
   - How the learner chooses the materials he/she reads
   - If there is a time when the learner has a very different understanding of the materials his/her facilitator chooses—what the facilitator does about that and what the learner does about that
   - How the facilitator keeps the track of the student's development as a reader, writer, and life skills learner
   - If the learner is involved in the planning of the lessons? How he/she is involved
   - If the facilitator teaches alone or requests other partners to assist him/her in ALE and if the learner can tell us for which lessons the facilitator made the invitation?

5. Would you please explain the knowledge, skills (basic skills, life skills, problem solving skills), self-confidence building matters you are gaining out of ALE?

6. Would you talk about your personal life relating to ALE and explain on how it has become part of your life: how do you feel about the application of knowledge and skills in your everyday lives?

   Important issues to be addressed include:

   - **Political awareness and participation** (voting age, parties found in the region/country, your participation in any of the parties)
   - **Community participation** (participation in public institutions, community level decision making; community development activities, donation)
   - **Awareness of gender discrimination and inequalities** (if he/she has ever heard of gender discrimination and inequality in his/her village)

- **Awareness of legal protections for women and children** (if she/he knows laws against violence, law mandating equal participation of women in local, national plans and incorporating women's needs in such plans)
- **Family cohesion** (quality of relationship; degree of closeness between members and among family members),
- **Importance of Children** (for financial support in old age, having a son, old age security, help while the child is young, love, closeness, parent naming, fun)
- **Decision making at home** (husband/ wife decides/ together/ for purchasing expensive things, having another child, using birth control, disciplining a child, whose opinion prevails in an important decision)
- **Self-concept** (How pleased you are with yourself, and with your appearance, how good you are as a husband/wife and as a mother/father; how knowledgeable you find yourself ; how smart you find yourself)
- **Self-efficacy** (If you have ever bought items yourself in the market, taken a bus/car by yourself, done a transaction in a rural bank by yourself, paid bills yourself, crossed the bridge (to the other side of the village) by yourself

7. Could you please mention some of the income generating skills you learned in ALE?
8. Do you think that there is fair and equal access/opportunity to ALE for all people (men and women) in your village?
9. Have you experienced/ heard of an example of inequality of participation in class when you were ALE learner? If yes, could you explain what the situation was like?
10. Have you seen/heard of any kind of marginalization in your village (regional, ethnic, social class or gendered)? If you have seen/heard of it, please explain this in detail.
11. What do you think are a person's civil and legal rights? How do you apply these rights in your everyday life (in relation to others)? (the importance here is to know whether or not she/he respects them)

IV. SD

12. Explain to us what should be done to protect your environment from danger? (Important issues the participants raise may include: issues preventing environmental pollution, issues of protecting deforestation, terracing, afforestation, reforestation, using technologies saving fuel wood). To what extent were you aware of these before and after you joined ALE?
13. Explain to us what we need to do in order to keep the economy in your region/country developing? To what extent were you aware of these ways of keeping the economy developing before and after you joined adult literacy education?
14. How can we make the society continue pleasantly? The extent to which you are aware of this before and after your exposure to ALE?
15. How do you think can SD be achieved in Ethiopia? To what extent were you aware of this before you joined adult literacy education?
16. What do you think are the challenges and prospects of SD in Ethiopia? Explain in relation to your village, zone or region? How can we solve the problems related to sustainable

development? To what extent were you aware of these challenges, prospects and solutions before and after you joined ALE?

17. In which language is ALE offered and what were its benefits for you?

V. General Question

18. What are the major problems of the current ALE?
19. How do you think would the ALE provision be improved (Quality issues, improving planning and management, improving and increasing learning materials, popularizing the program, strengthening certification)

Thank you for your cooperation and participation in this interview.

2. Interview Protocol for IFALE Facilitators

Everyone can think differently about adult literacy education due to several reasons. As I would like to know about how you understand the implementation and contributions of adult literacy education to learner empowerment and SD, I will interview you for approximately one and half hours; I am going to take notes and audiotape the interview.

I. Personal Information

1. Tell me about yourself.
   - Name
   - Center where you facilitate
   - Level
   - Why did you become an adult literacy education (ALE) facilitator?
   - What is your educational and professional background?

II. Primary Goals of ALE

2. What do you think is the purpose of ALE in Ethiopia?
3. What do you most hope to have accomplished when your students finish their adult literacy program?
4. How can you tell when they have achieved this?

III. Facilitation and Learning

5. How do you evaluate your facilitation? Explain in detail.
   Important Issues to be considered about the facilitation include:
   - For how long he/she has worked as a facilitator
   - How do you think were the learners recruited to Adult Literacy Education (ALE)?
   - How he/she learned to facilitate
   - For how long the facilitator has been trained
   - If there are key people, and readings (or theories if any) that influence his/her facilitation; in what ways he/she has to be specific.
   - What instructional beliefs and practices, specific to literacy instruction, the facilitator holds
   - Explaining to a new adult literacy education facilitator the structure of the day, including the amount of time spent on different activities, role of the learners and his/her role.
   - Talking about his/her classroom facilitation this year.
   - How she/he knows what to teach
   - Giving specific examples on how he/she facilitates (teaches) basic reading, writing, numeracy and life skills
   - How she/he learns how to teach people literacy (reading and writing), calculation, and basic life skills
   - Specific examples on what kinds of reading her/his students do
   - What kinds of writing her/his students do; how she/he decides on topics and genres
   - Specific examples on what kind of basic numeracy her/his students do

- Specific examples on the kind of life skills her/his students learn
- Whether it is learning basic skills, life skills, socio-economic skills that is given more emphasis (and why it is so)
- What materials, for example books, the students read
- How the facilitator chooses the materials her/his students read
- If there is a time when a student has a very different understanding of the materials she/he chooses; what he/she does about that
- How she/he keeps the track of the students' development as readers, writers, life skills learners
- How the students are expected to learn inside and/or outside the class—using self-study
- How the students learn in your classroom; How she/he knows about the way the students learn
- How the facilitator sees the interest and motivation of learners
- How do you deal with learners requiring special support—visually impaired, handicapped, etc. ; What his/her thoughts on this are
- What limitations of self-knowledge/skill the facilitator recognizes
- What additional information would be helpful to inform her/his instructional practices (facilitation); how she/he would get that information
- Why the facilitator thinks all people who don't read, write and count well in his/her village can't join ALE
- Whether or not there were drop outs and why he/she thinks people drop out of ALE, Women? Men? Boys? Girls?
- What learning materials he/she uses in adult literacy classes
- Explanation on how accessible the materials are
- Do you teach alone or request other partners (agricultural extension, or health extension workers) to assist you in ALE?
- If yes, can you tell us for why and which lessons you invited them?

IV. Empowerment

6. Would you please explain the knowledge, skills (basic skills, life skills, problem solving skills), self-confidence building matters the learners are gaining out of ALE?
7. Would you talk about your personal life relating to ALE and explain on how it has become part of your life: how do you feel about the application of knowledge and skills in your everyday lives?

How he/she evaluates ALE in terms of enhancing learners':

- **Political awareness and participation** (voting age, parties found in the region/country, your participation in any of the parties)
- **Community participation** (participation in public institutions, community level decision making; community development activities, donation)
- **Awareness of gender discrimination and inequalities** (if he/she has ever heard of gender discrimination and inequality in his/her village)

- **Awareness of legal protections for women and children** (if she/he knows laws against violence, law mandating equal participation of women in local, national plans and incorporating women's needs in such plans)
- **Family cohesion** (quality of relationship; degree of closeness between members and among family members),
- **Self-confidence and self-concept**
- **Decision making by oneself or together with the partner**
- **Income generation**

8. Do you think that there is fair and equal access/opportunity to ALE for all people (men and women) in this village?
9. During classroom facilitation (discussion), do you encourage female learners to participate? If yes, why?
10. What do you do when one or more learners bring up controversial issues, or when there is ambiguity about the correct answer?

V. SD

11. What environmental protection issues have you dealt with in ALE classes?
12. How do you think are the learners in applying issues of environmental protection in their day today activities?
13. Do you also teach issues of social and economic sustainability in class? If yes, how are the learners in making them as part of their life?
14. In your view, what should be the role of ALE with regard to environmental or/ and socio-economic sustainability?
15. In which language is ALE offered and what were its benefits for the learners?

VI. Assessment

16. How do you assess your students?

Important Issues to be considered include*:*

- What assessments of ALE are in use
- What assessments the facilitator personally uses
- How she/he uses the results

VII. General

17. What are the major problems associated with ALE?
18. How do you think would the ALE provision be improved (Quality issues, improving planning and management, improving and increasing learning materials, popularizing the program, strengthening certification)

Thank you for your cooperation and participation in this interview.

3. Interview Protocol for Wereda IFALE Officials and Supervisors

The purpose of this interview is to understand the contribution of adult literacy education for sustainable development. Everyone can have a different understanding of literacy education due to various reasons. As I would like to understand the implementation of adult literacy education and adult literacy education contributions to learner empowerment and sustainable development, I will interview you for approximately one and half hours. I will write notes and record the interview.

I. Personal Information

1. Please tell us about yourself
   - Name
   - Education level and field of specialization
   - Current position

II. Possible Assumptions of Adult Literacy Education (ALE)

2. What is the historical perspective of ALE in Tigray/Amhara Region in particular in Ethiopia in general?
3. What are the lessons learned from the past ALE programs? How differently is the current ALE designed?
4. What are the major possible assumptions of the current ALE?
5. What are the major founding principles of the current ALE?
6. What are its major objectives (purposes)?
7. What is the role of regional education bureaus in the design and implementation of ALE?

III. Relevance of the ALE Assumptions

8. What is the relationship between the designed literacy, numeracy and life skills on the one hand and the economic, social and environmental characteristics of the areas?
   - Specificity of the ALE program to regional, social, cultural, religion and livelihood variations
   - How the ALE knowledge and literacy skills match with local institutions
   - How the ALE is linked to life skills used at home, at work ?
9. What do you most hope to have accomplished when the learners finish their ALE? How can you tell when they have achieved this?
10. How do you evaluate the overall design of the regional ALE major manuals (Preparation of the Facilitators' manual, mobilization document, etc.)?
    Important Issues to be considered include:
    - Who participated in its design
    - Who the collaborators involved are; their role in the design and implementation
    - What your role as people responsible for ALE in the region.
    - If the potential learners' needs, demands and priorities have been assessed before the design and have been considered in the design
    - What notions of literacy events, practices and domains have been considered in the design of the program, if there were any?
    - What the role of the various levels of the ALE Education system at various levels are

(MoE and its collaborators at national level, the Regional State, Bureau of Education, Wereda Education, etc.)?

IV. Taking Informed Decision on ALE

11. Do you think that there were any research undertakings done, for example baseline survey at national and regional levels to design the current ALE program?
    If so, what were the major/key findings identified and used as basis to design the ALE and to develop the curriculum and the ALE manuals, etc.?
12. Has there been a benchmark (role model country) when you design the ALE strategy or program?
13. What were the lessons considered from previous ALE programs in Ethiopia?
14. What were the bases when designing the ALE, preparing the National Adult Literacy Education, the ALE curriculum and facilitators' manuals, recruiting the facilitators, setting up the ALE training centers and institutional system to run the ALE?
15. Why IFALE, why not functional or critical or some other model?
16. How did you define the role of learners and facilitators, the duration of the program (2 years), and continuity of the program?

V. State of ALE

17. Please tell us about the current status of ALE at regional level.
    Important Issues to be considered include:
    - His/her vision and perception about the implementation of ALE plan (what works, what doesn't work)
    - The extent to which the learners are gaining what they expected from the ALE provision. Explanation about what they have gained by joining ALE
    - The reasons why illiterate (people who don't read, write and count well) in the villages don't join ALE
    - Dropout rates and why people drop out of ALE—Women? Men? Boys? Girls?
    - Academic background and training of facilitators
    - What instructional beliefs and practices, specific to literacy instruction, exemplary adult literacy education facilitators are expected to hold; how he/she thinks the facilitators are in light of this.
    - Appropriateness of the facilitators' approaches and methods used in adult literacy classes are
    - Overall adequacy of facilitators (quantity and quality of facilitators) at national level
    - Availability of learning materials for ALE
    - Suitability of the available learning materials for the learners' needs
    - Distance of ALE centers from the learners' homes
    - Average class size at national level
    - Availability of facilities and equipment in the ALE centers
    - The extent to which ALE satisfies the learners' needs
    - Learners' involvement in the planning of the lessons
    - What challenges, difficulties the learners of ALE encounter as learners; Personal? Domestic? Financial? Psychological? Administrative? Or any other?

- How ALE is linked to lifelong learning (Post literacy plan)
- How the students are expected to learn inside and/or outside the class—using self-study

VI. Empowerment

18. How empowering is ALE to the learners?

    If he/she could say something about ALE corresponding to its potential to enhancing learners':

    - **political awareness and participation** (voting age, parties found in the region/country, your participation in any of the parties)
    - **Community participation** (participation in public institutions, community level decision making; community development activities, donation)
    - **Awareness of gender discrimination and inequalities** (if he/she has ever heard of gender discrimination and inequality in his/her village)
    - **Awareness of legal protections for women and children** (if she/he knows laws against violence, law mandating equal participation of women in local, national plans and incorporating women's needs in such plans)
    - **Family cohesion** (quality of relationship; degree of closeness between members and among family members),
    - **Self-confidence**
    - **Decision making by oneself or together with ones the partner**
    - **Income generation skills**

19. What does the application of knowledge and skills to learners' everyday lives looks like?
20. How do you see ALE in the country is in terms of achieving its promises?
21. Would you please reflect on the extent to which the rural adult learners' competences satisfy the competence profile as defined by the ALE?
22. How is the intention and implementation ALE currently in terms of fairness, equality and equity?

    Important Issues to be considered include:

    - Detail explanation in relation to addressing issues of regional, ethnic, social class, or gendered marginalization
    - If he/she thinks that what they are learning integrates issues of gender (women's role) or *marginalized people* into the curriculum
    - If there is equality of ALE opportunity to marginalized groups
    - What gender equity looks like in ALE provision
    - Whether or not there is the opportunity to become autonomous through self-reflection and educators' facilitation,
    - If there has been provision of equal good education by the state, with more resources to those with less e.g. the blind, to ensure the same quality,
    - If ALE provision really responds to the daily realities of the poor (to their needs, practices, hopes and aspirations? Explaining in detail if it does; if not, how it can be made so.
    - If the provision avoids stigmatizing those who have not had the opportunity to learn to read and write? Detail explanation as to how this can be made successful (If not, why not?)

- If ALE he/she feels can be made more relevant, accessible, equitable, extending to the very hardest to reach? Explain in detail how it can be so? (If not, why not?)

VII. SD

18. How do you evaluate ALE in terms of its focus on developing the learners' understanding and awareness of sustainability (sustained environment, society and economy) as well as application of their knowledge?

    Important Issues to be considered include:

    - Does ALE address imparting knowledge, skills, perspectives and values that encourage and support learner to lead sustainable social, environmental and economic lives?—if it does, what is the most convincing piece of evidence to support this conclusion?
    - What environmental protection issues are you dealt with in ALE?
    - How do you think are the learners in applying issues of environmental protection in their day today activities?
    - Are issues of social and economic sustainability addressed in ALE? If yes, how are the learners in making them as part of their life?
    - In your view, what should be the role of ALE with regard to environmental and socio-economic sustainability?
19. To what extent do you think ALE is expanded to include critical-thinking skills, skills to organize and interpret data and information, skills to formulate questions, and the ability to analyze issues that confront communities?
20. In which languages is ALE offered and what do you think are the benefits to the learners?

VIII. General

21. Although Ethiopia's development policy agenda has for more than 20 years been Agricultural Development Led Industrialization (ADLI), the ALE as a well-articulated strategy and education sub-sector with in the ESDP has been a very recent phenomenon. *The young and adult farmers have until recently been denied of basic education, which might otherwise have speeded up more the achievement of ADLI*
22. Would you please tell us how the monitoring and evaluation of ALE is carried out?
23. What are the overall problems of ALE in Ethiopia?

24. How he/she thinks can the ALE be improved *(Quality issues, improving program planning and management, improving and increasing learning materials, popularizing the program, strengthening certification)*

Thank you for your cooperation and participation in this interview.

4. Interview Protocol for Regional IFALE Officials and Focal Persons

The purpose of this interview is to investigate the implementation and contributions of adult literacy education for learner empowerment and SD. Everyone can have a different understanding of literacy education due to various reasons. As I would like to know how you think about the state of adult literacy education and adult literacy education contributions to learner empowerment and SD, I will interview you for approximately one and half hours.I will take notes and record the interview.

I. Personal Information

1. Please tell us about yourself
   - Name
   - Education level and field of specialization
   - Current position

II. Possible Assumptions of Adult Literacy Education (ALE)

2. What is the historical perspective of ALE in Tigray/Amhara Region in particular in Ethiopia in general?
3. What are the lessons learned from the past ALE programs?
4. How differently is the current ALE designed?
5. What are the major possible assumptions of the current ALE?
6. What are the major founding principles of the current ALE?
7. What are its major objectives (purposes)?
8. What is the role of regional education bureaus in the design and implementation of ALE?

III. Relevance of the ALE Assumptions

9. What is the relationship between the designed literacy, numeracy and life skills on the one hand and the economic, social and environmental characteristics of the areas?
   - Specificity of the ALE program to regional, social, cultural, religion and livelihood variations
   - How the ALE knowledge and literacy skills match with local institutions
   - How the ALE is linked to life skills used at home, at work and in the….?
10. What do you most hope to have accomplished when the learners finish their ALE? How can you tell when they have achieved this?
11. How do you evaluate the overall design of the regional ALE major manuals (Preparation of the Facilitators' manual, mobilization document, etc.)?

    Important Issues to be considered include:

    - Who participated in its design
    - Who the collaborators involved are; their role in the design and implementation
    - What your role as people responsible for ALE in the region.
    - If the potential learners' needs, demands and priorities have been assessed before the design and have been considered in the design
    - What notions of literacy events, practices and domains have been considered in the design of the program, if there were any?

- What the role of the various levels of the ALE Education system at various levels are (MoE and its collaborators at national level, the Regional State, Bureau of Education, Wereda Education, etc.)?

IV. Taking Informed Decision on ALE

12. Do you think that there were any research undertakings done, for example baseline survey at national and regional levels to design the current ALE program? If so, what were the major/key findings identified and used as basis to design the ALE and to develop the curriculum and the ALE manuals, etc.?
13. Has there been a benchmark (role model country) when you design the ALE strategy or program?
14. What were the lessons considered from previous ALE programs in Ethiopia?
15. What were the bases when designing the ALE, preparing the National Adult Literacy Education, the ALE curriculum and facilitators' manuals, recruiting the facilitators, setting up the ALE training centers and institutional system to run the ALE?
16. Why IFALE, why not functional or critical or some other model?
17. How did you define the role of learners and facilitators, the duration of the program (2 years), and continuity of the program?

V. Status

18. Please tell us about the current status of ALE at regional level.

Important Issues to be considered include:

- His/her vision and perception about the implementation of ALE plan (what works, what doesn't work)
- The extent to which the learners are gaining what they expected from the ALE provision. Explanation about what they have gained by joining ALE
- The reasons why illiterate (people who don't read, write and count well) in the villages don't join ALE
- Dropout rates and why people drop out of ALE—Women? Men? Boys? Girls?
- Academic background and training of facilitators
- What instructional beliefs and practices, specific to literacy instruction, exemplary adult literacy education facilitators are expected to hold; how he/she thinks the facilitators are in light of this.
- Appropriateness of the facilitators' approaches and methods used in adult literacy classes are
- Overall adequacy of facilitators (quantity and quality of facilitators) at national level
- Availability of learning materials for ALE
- Suitability of the available learning materials for the learners' needs
- Distance of ALE centers from the learners' homes
- Average class size at national level
- Availability of facilities and equipment in the ALE centers
- The extent to which ALE satisfies the learners' needs
- Learners' involvement in the planning of the lessons

- What challenges, difficulties the learners of ALE encounter as learners; Personal? Domestic? Financial? Psychological? Administrative? Or any other?
- How ALE is linked to lifelong learning (Post literacy plan)
- How the students are expected to learn inside and/or outside the class—using self-study

VI. Empowerment

19. How empowering is ALE to the learners?

    If he/she could say something about ALE corresponding to its potential to enhancing learners':

    - **political awareness and participation** (voting age, parties found in the region/country, your participation in any of the parties)
    - **Community participation** (participation in public institutions, community level decision making; community development activities, donation)
    - **Awareness of gender discrimination and inequalities** (if he/she has ever heard of gender discrimination and inequality in his/her village)
    - **Awareness of legal protections for women and children** (if she/he knows laws against violence, law mandating equal participation of women in local, national plans and incorporating women's needs in such plans)
    - **Family cohesion** (quality of relationship; degree of closeness between members and among family members),
    - **Self-confidence**
    - **Decision making by oneself or together with ones the partner**
    - **Income generation skills**

20. What does the application of knowledge and skills to learners' everyday lives looks like?
21. How do you see ALE in the country is in terms of achieving its promises?
22. Would you please reflect on the extent to which the rural adult learners' competences satisfy the competence profile as defined by the ALE?
23. How is the intention and implementation ALE currently in terms of fairness, equality and equity?

    Important Issues to be considered include:

    - Detail explanation in relation to addressing issues of regional, ethnic, social class, or gendered marginalization
    - If he/she thinks that what they are learning integrates issues of gender (women's role) or *marginalized people* into the curriculum
    - If there is equality of ALE opportunity to marginalized groups
    - What gender equity looks like in ALE provision
    - Whether or not there is the opportunity to become autonomous through self-reflection and educators' facilitation,
    - If there has been provision of equal good education by the state, with more resources to those with less e.g. the blind, to ensure the same quality,
    - If ALE provision really responds to the daily realities of the poor (to their needs, practices, hopes and aspirations? Explaining in detail if it does; if not, how it can be made so.

- If the provision avoids stigmatizing those who have not had the opportunity to learn to read and write? Detail explanation as to how this can be made successful (If not, why not?)
- If ALE he/she feels can be made more relevant, accessible, equitable, extending to the very hardest to reach? Explain in detail how it can be so? (If not, why not?)

VII. SD

24. How do you evaluate ALE in terms of its focus on developing the learners' understanding and awareness of sustainability (sustained environment, society and economy) as well as application of their knowledge?

    Important Issues to be considered include:

    - Does ALE address imparting knowledge, skills, perspectives and values that encourage and support learner to lead sustainable social, environmental and economic lives?—if it does, what is the most convincing piece of evidence to support this conclusion?
    - What environmental protection issues are you dealt with in ALE?
    - How do you think are the learners' in applying issues of environmental protection in their day today activities?
    - Are issues of social and economic sustainability addressed in ALE? If yes, how are the learners in making them as part of their life?
    - In your view, what should be the role of ALE with regard to environmental and socio-economic sustainability?
25. To what extent do you think ALE is expanded to include critical-thinking skills, skills to organize and interpret data and information, skills to formulate questions, and the ability to analyze issues that confront communities?
26. In which languages is ALE offered and what do you think are the benefits to the learners?

VIII. General

27. Although Ethiopia's development policy agenda has for more than 20 years been Agricultural Development Led Industrialization (ADLI), the ALE as a well-articulated strategy and education sub-sector with in the ESDP has been a very recent phenomenon.

    The young and adult farmers have until recently been denied of basic education, which might otherwise have speeded up more the achievement of ADLI
28. Would you please tell us how the monitoring and evaluation of ALE is carried out?
29. What are the overall problems of ALE in Ethiopia?
30. How he/she thinks can the ALE be improved *(Quality issues, improving program planning and management, improving and increasing learning materials, popularizing the program, strengthening certification)*

Thank you for your cooperation and participation in this interview.

5. Interview Protocol for Policy Makers

The purpose of this interview is to investigate the implementation of IFALE and its contributions to empowerment and SD. Everyone can have a different understanding of literacy education due to various reasons. As I would like to know how you think about the implementation of IFALE and its contributions to learner empowerment and SD, I will interview you for approximately one and half hours; I am going to take notes and audiotape the interview.

I. Personal Information

1. Please tell us about yourself
   - Name
   - Education level and field of specialization
   - Current position

II. Possible Assumptions of Adult Literacy Education (ALE)

2. What is the historical perspective of ALE in Ethiopia?
3. What are the lessons learned from the past ALE programs?
4. What is the general objective of the National Adult Education Strategy (NAES)?
5. What are the strategic objectives of the NAES?
6. Would you please mention the strategic directions of the strategy?
7. How differently is the current ALE designed?
8. What is the focus of ALE in Ethiopia at this time?
9. What is your vision as far as ALE is concerned?
10. What are the major principles of the current ALE master plan?
11. What are its major objectives (purposes)?
12. How should the nature, delivery and relevance of ALE in Ethiopia be?

III. Contextual Validity of the ALE Assumptions (Relevance)

13. How are the ALE strategy and plan related to the other policies of the country?
14. What is the relationship between the designed literacy, numeracy and life skills on the one hand and the economic, social and environmental characteristics of the areas?
    - Specificity of the ALE program to regional, social, cultural, religion and livelihood variations
    - How the literacy skills are matching with local institutions
    - How the ALE is linked to life skills used at home, at work and in the….?
    - How empowering ALE to the learners (In terms of political awareness and participation, Community participation, awareness of gender discrimination and inequalities, awareness of legal protections for women and children, family cohesion, self-confidence, decision making by oneself or together with the partner, income generation)
    - How is it in relation to achieving fairness, equity and equality (from design up to implementation)?

- How is it in terms of raising environmental, social, and economic sustainability of the learners?

IV. Change in Action (Taking Informed Decision)

15. Were there any research undertakings done, for example baseline survey at national and regional levels to design the current ALE program?
    If so, what were the major/key findings identified and used as basis to design the ALE and to develop the curriculum and the ALE manuals, etc.?
16. Have you had a benchmark (role model country) when you design the ALE strategy or program?
17. What were the bases when designing the ALE, preparing the National Adult Literacy Education, the ALE curriculum and facilitators' manuals, recruiting the facilitators, setting up the ALE training centers and institutional system to run the ALE?
18. Why IFALE, why not functional or critical or some other model of literacy?
19. How did you define the role of learners and facilitators, the duration of the program (2 years), and continuity of the program?
20. How do you demarcate the role of the duties and responsibilities of the federal and regional bodies?
21. Although Ethiopia's development policy agenda has for more than 20 years been Agricultural Development Led Industrialization (ADLI), the ALE as a well-articulated strategy and education sub-sector with in the ESDP has been a very recent phenomenon. Don't you think that the young and adult farmers have until recently been denied of basic education, which might otherwise have speeded up more the achievement of ADLI?

V. Monitoring and Evaluation

22. What are the current expected outcomes of IFALE (as put in ESDP IV)?
23. Would you please mention the key outcome targets of IFALE?
24. Please tell us about the status of ALE (including, strengths, weaknesses, the way forward).
25. Would you please tell us how the monitoring and evaluation of ALE is carried out?

Thank you for your cooperation and participation in this interview.

6. Interview Protocol for Collaborators of Adult Literacy Education

The purpose of this interview is to investigate the implementation and contributions of adult literacy education for empowerment and SD. Everyone can have a different understanding of literacy education due to various reasons. As I would like to know how you think about the implementation of IFALE and contributions to learner empowerment and SD, I will interview you for approximately one and half hours; I am going to take notes and audiotape the interview.

I. Personal Information

1. Would you please tell me about yourself?
   - Name
   - Education level and field of specialization
   - What is your current position in the organization'

II. Primary Goals and the Design of Adult Literacy Education (ALE)

2. What do you think is ALE or Integrated Functional Adult Education (IFALE)? What does it integrate?
3. What is its purpose in the context of Ethiopia?

   Important Issues to be considered include:
   - How the interviewee thinks about its importance
   - How the program is funded
   - What the interviewee hopes the learners to have accomplished most when the they finish their adult literacy education; how he/she can tell when they have achieved this
   - Explanation as to what extent the interviewee thinks the program is explicitly linked to lifelong learning
4. Do you think that you are playing your role properly as a collaborator? What are your contributions?
5. How do you evaluate the overall design of ALE?

   Important Issues to be considered include:
   - If he/she knows the collaborators who participated in the design ALE **(***National Adult Literacy Strategy (2008), Learning for Life: Master Plan for Adult Education in Ethiopia (2010/11-2019/20),* the *Integrated Functional Adult Literacy Program as a sub-sector within the Education Sector Development Plan IV (2010/11-2014/15)***)**
   - Their role as a collaborator in the design and/ or implementation
   - If the potential learners' needs, demands and priorities have been heard before the ALE program design and accommodated during the design of ALE
   - If ALE is based on full assessment of the pre-existing ALE practices
   - What lessons have been learned from them
   - What notions of literacy events, practices and domains have been considered in the design of the program

III. Empowerment

6. Would you please explain what knowledge, skills (basic skills, life skills, problem solving skills), self-confidence building matters the learners are gaining out of ALE?

   Important Issues to be considered include:

   If the representative of the collaborating institution could say something about ALE corresponding to its potential to enhancing learners':

   - **political awareness and participation** (voting age, parties found in the region/country, your participation in any of the parties)
   - **Community participation** (participation in public institutions, community level decision making; community development activities, donation)
   - **Awareness of gender discrimination and inequalities** (if he/she has ever heard of gender discrimination and inequality in his/her village)
   - **Awareness of legal protections for women and children** (if she/he knows laws against violence, law mandating equal participation of women in local, national plans and incorporating women's needs in such plans)
   - **Family cohesion** (quality of relationship; degree of closeness between members and among family members),
   - **Self-confidence**
   - **Decision making by oneself or together with the partner**
   - **Income generation**

7. Would you explain on how ALE has become part of the learners' life: how do you feel about the application of knowledge and skills in their everyday lives?
8. As a collaborator, how do you evaluate the ALE in terms of fairness, equality, equity and provision of opportunities to the learners for participating in personal development, social and community life, and decision-making, considering the plan and implementation?

   - Do you think that there is fair and equal access/opportunity to ALE for all people (men and women) in the country?
   - How do you think is the classroom facilitation (discussion), in encouraging female learners to participate?

IV. SD

9. How do you evaluate ALE in terms of its focus on developing the learners' understanding and awareness of sustainability (sustained environment, society and economy) as well as application of their knowledge?
   - What environmental protection issues are you dealt with in ALE?
   - How do you think are the learners in applying issues of environmental protection in their day today activities?
   - Are issues of social and economic sustainability included in ALE? If yes, how are the learners in making them as part of their life?
   - In your view, what should be the role of ALE with regard to environmental and socio-economic sustainability?

10. To what extent do you think ALE is expanded to include critical-thinking skills, skills to organize and interpret data and information, skills to formulate questions, and the ability to analyze issues that confront communities?
11. In which languages is ALE offered and what do you think are the benefits to the learners?

V. General

12. Although Ethiopia's development policy agenda has for more than 20 years been Agricultural Development Led Industrialization (ADLI), the ALE as a well-articulated strategy and education sub-sector with in the ESDP has been a very recent phenomenon. *However, the adult farmers have until recently been denied of basic education, which might otherwise have speeded up more the achievement of ADLI*
13. How is the monitoring and evaluation of ALE carried out?
14. How she/he evaluates the overall status of ALE in the country so far (How effective is it?
15. How has the role of collaborators been in the overall implementation of the program?
16. What do you think ought to be done to improve ALE in the country, specifically in relation to the role played by partners?

Thank you for your cooperation and participation in this interview.

B. **IFALE Session Observation Protocol**

I. Background

1. Name of the ALE Center: _____ Woreda:: _____
   Region: _____
2. Level of the observed adult literacy class:_____
3. Sex of the facilitator :_____
4. Date:_____
5. Title of lesson:
   _____

II. Put a tick on *Yes* or *No* options to indicate the criteria achieved (questions 7-12).

7. Objectives	*Yes*	*No*
7.1 Clear		
7.2 Appropriate		
7.3 Communicated to students		
7.4 Achieved		

Additional comments:

8. Activities	Yes	No
8.1 Well organized		
8.2 Varied		
8.3 Active learning		
8.4 Student centered		
8.5 Well-paced		
8.6 Positive challenge and manageable		

Additional comments:

9. Assessment	Yes	No
9.1 Appropriate		
9.2 Continuous		
9.3 Students aware of assessment		
9.4 Students received constructive feedback		

Additional comments:

10. Facilitator	Yes	No
10.1 Showed high level of subject knowledge		
10.2 Delivered knowledge at appropriate level		
10.3 Used a range of relevant examples		
10.4 Communicated clearly and effectively		
10.5 Interacted positively with students		
10.6 Clearly enjoyed the lesson		
10.7 Managed class		

Additional comments:

11. Learners	Yes	No
11.1 Clearly interested in the lesson		
11.2 Participated actively (both male and female)		
11.3 Were treated as individuals		
11.4 Understood what was expected		
11.5 Were encouraged by the facilitator		
11.6 Enjoyed the lesson		

Additional comments:

12. Teaching methods used	**Yes**	**No**	**If *Yes*, for how long?**
12.1 Brainstorming			
12.2 Buzz group			
12.3 Visit			
12.4 Roleplay			
12.5 Group discussion			
12.6 Pair work			
12.7 Case Study			
12.8 Demonstration			
12.9 Simulation			
12.10 Presentation			
12.11 Gapped lecture			
12.12 Lecture (talk-and-chalk)			
12.13 Debate			
12.14 Question and answer			
12.15 Independent work			
12.16 Cooperative work			
12.17 Matching exercises			
12.18 Drawing and picture			
12.19 Picture analysis			
12.20 Pyramiding			
12.21 Problem solving			
12.22 Experiment			
12.23 Reflection			
12.24 Experience sharing			
12.25 Drama			
12.26 Game			
12.27 Others			

Additional comments:

13. Approximate teacher talk time in percentage_____

14. Resources used:

_____

15. General comment:

a. Very successful:_____
b. Successful:_____
c. Fairly successful: _____
d. Unsuccessful:_____
e. Very unsuccessful:_____

16. Does the center teach adults the essential skills targeted by the curriculum?

_____

_____

17. Do the adults relate to what is being learned and connect it with their own experience?

_____

_____

18. General reflections:

_____

_____

C. **IFALE Center Observation Protocol**

1. Name of center:_____
2. Woreda: _____
3. Zone: _____
4. Region: _____
5. **Enrollment of ALE learners by year:**

Year	**1st**			**2nd**			
	M	**F**	**Total**	**M**	**F**	**M**	**Total**
2010/11 (2003 Ethiopian Calendar, E.C.)							
2011/12 (2004 E.C.)							
2012/13 (2005 E.C.)							

6. **Number of groups (Sections): 1st year:_____ 2nd year:_____**
7. **Number of drop outs by sex and year**

	1st			**2nd**			
Year	**M**	**F**	**Total**	**M**	**F**	**M**	**Total**
20010/11 (2003 E.C.)							
20011/12 (2004 E.C)							
2012/13 (2005 E.C)							

8. **Number of facilitators in the center by sex and qualification:**

Certificate			**Diploma**		
M	F	Total	M	F	Total

Comments:

_____

9. Number of facilitators by s**ervice years:**

1 year	**2 years**	**3 years**	**3 years and above**

10. **Condition of the center :**

S No.	**Item**	**Very good**	**Good**	**Fair**	**Poor**	**Very Poor**	**NA**
1	Location						
2	Spaces						
3	Offices and facilities						
4	Water supply						
5	Fence						
6	Electric supply						
7	Latrine						
8	Facilities						
9	Setting						
10	Staff rooms						

Comments:

_____

11. **Physical condition of the learning places :**

S No.	Item	Very Good	Good	Fair	Poor	Very Poor	NA
1	Chalkboard						
2	Chairs						
3	Benches						
4	Walls						
5	Roof						

Comments:

_____

12. **Condition of the reading post (if any):**

S. No.	Item	Very Good	Good	Fair	Poor	Very Poor	NA
1	Number of supplementary books						
2	Budget allocated on books						
3	Availability of qualified personnel						

Comments:

_____

_____

Detail Evaluation:

_____

_____

D. Individual IFALE Participant Observation Protocol

Region:_____

Wereda:_____

Center:_____

Checklist for observing neo-literates in their homes:

- Personal hygiene
- House keeping
- Presence and use of latrines
- Preparation of compost

E. Survey for IFALE Participants and Non-Participants

As we would like to know about the contribution of adult literacy education to sustainable development in Ethiopia, we will survey with you for approximately one and half hours.

I. Personal Information

1. Name:_____
2. Wereda:_____
3. Zone:_____
4. Region:_____
5. Age:_____
6. Sex:_____
7. Marital Status (Put a tick (√) after one). Single:____ Married:_____
   Divorced:____ Widow/Widower:_____
8. If you are married, number of years in marriage:_____
9. Number of children:_____
10. IFALE graduate: _____ Non-graduate:_____

II.The Contribution of ALE

Participation in election and decision-making

11. How do you rate the importance of participation in voting? (**circle one**)
    5. Very important 4. Important 3. Moderately important 2. Not important
    1. Totally unimportant
12. How do you rate yourself in terms of participation in voting? (**circle one**)
    5. Very good 4. Good 3. Average 2. Poor 1. Very poor
13. To what extent would you be interested in becoming a local representative for an election?
    5. Very high 4. High 3. Average 2. Low 1. Very low
14. To what extent do you participate in decision-making in public institutions at any level?
    5. Very high 4. High 3. Average 2. Low 1. Very low
15. If you participated what was your role?
    _____
16. Did you participate in local council election in 2013?
    A.Yes B. No
17. If you participated, in what capacity did you participate? **put a tick –√ after the following alternatives**
    17.1 A candidate for a regional/wereda/kebele general assembly: _____
    17.2 An observer: _____
    17.3 A voter: _____
    17.4 An election facilitator/officer:_____
    17.5 If other, please specify:_____
18. What is the minimum voting age in Ethiopia?_____
19. Can you name the political party/parties you know in the region/country? Please mention them. _____
20. Do you think you could become a local representative in an election at any level?
    A. Yes B. No
21. Is there any law on electing representatives (men/women)?
    A. Yes B. No

22. If yes, can you tell us about it?

_____

23. Where does your knowledge and practices of political participation as well as decision-making of public organizations come from? **It is possible to put a tick (√) more than once**.
    23.1 IFALE:_____
    23.2 Local leaders (wereda/kebele): _____
    23.3 Friends:_____
    23.4 Local media: _____
    23.5 If others, please mention: _____

Community participation

24. Are you a member of a community organization?
    A. Yes B. No
25. If yes, to which group do you belong?

_____

26. If yes, at what level did you participate?

_____

27. Do you know the community/village development committees in your area?
    A. Yes B. No
28. If yes, could you mention some of the community development committees in your area?

_____

29. Did you ever participate in community development activities in the last two years?
    A. Yes B. No
30. If yes, which?

_____

31. If yes, what was your level of participation?

_____

32. If yes, what is/are the source of your knowledge and practices of involvement in community organizations as well as community development committees and their activities? **It is possible to put a tick (√) more than once.**
    32.1 IFALE:_____
    32.2 Agricultural extension workers: _____
    32.3 Friends:_____
    32.4 Local leaders (wereda, or kebele): _____
    32.5 Media: _____
    32.6 If others, please mention:_____

33. **Agricultural technologies for increasing agricultural production**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3. moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* each of the following agricultural technologies **for** increasing your production? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of using each of the following agricultural technologies for increasing your production? (**circle one**)
33.1	Improved agricultural tools (such as ploughs, a tool for sowing crops by line)	5 4 3 2 1	5 4 3 2 1
33.2	Improved seeds	5 4 3 2 1	5 4 3 2 1
33.3	Fertilizers	5 4 3 2 1	5 4 3 2 1
33.4	Compost	5 4 3 2 1	5 4 3 2 1
33.5	Manure	5 4 3 2 1	5 4 3 2 1
33.6	Pesticides	5 4 3 2 1	5 4 3 2 1
33.7	Herbicides	5 4 3 2 1	5 4 3 2 1
33.8	Sowing seeds by lines	5 4 3 2 1	5 4 3 2 1
33.9	Well-timed gathering of crops	5 4 3 2 1	5 4 3 2 1
33.10	Drip-irrigation	5 4 3 2 1	5 4 3 2 1
33.11	Having access to water sources (river water, dam-water, pond-water)	5 4 3 2 1	5 4 3 2 1
33.12	Motor pump	5 4 3 2 1	5 4 3 2 1

34. From whom did you learn about agricultural technologies for increasing production? **It is possible to put a tick (√) more than once.**

34.1 IFALE: _____
34.2 Farmer Training Center (FTC):_____
34.3 Agricultural extension workers:_____
34.4 Health extension workers: _____
34.5 Local leaders: _____
34.6 Media: _____
34.7 If others, please mention:_____

35. **Environmental protection measures**

	Items	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1.totally unimportant** How do you rate the *importance of the following measures of* Environmental protection? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of participating in the following measures of environmental protection? (**circle one**)
35.1	Contour-plowing	5 4 3 2 1	5 4 3 2 1
35.2	Terracing	5 4 3 2 1	5 4 3 2 1
35.3	Stone bunds	5 4 3 2 1	5 4 3 2 1
35.4	Constructing check dams	5 4 3 2 1	5 4 3 2 1
35.5	Constructing *gabion*	5 4 3 2 1	5 4 3 2 1
35.6	*Daget* system	5 4 3 2 1	5 4 3 2 1
35.7	Sediment trap on the riverside	5 4 3 2 1	5 4 3 2 1
35.8	Planting trees	5 4 3 2 1	5 4 3 2 1
35.9	Using fuel-wood saving stove at home	5 4 3 2 1	5 4 3 2 1
35.10	Using solar/wind energy	5 4 3 2 1	5 4 3 2 1
35.11	Preparing latrines	5 4 3 2 1	5 4 3 2 1
35.12	Utilizing latrines	5 4 3 2 1	5 4 3 2 1
35.13	Preparing liquid and solid waste-disposal techniques	5 4 3 2 1	5 4 3 2 1
35.14	Utilizing liquid and solid waste-disposal techniques	5 4 3 2 1	5 4 3 2 1
35.15	Securing enclosures from domestic animal and human intrusion	5 4 3 2 1	5 4 3 2 1
35.16	Wise use of fauna or flora in our surrounding	5 4 3 2 1	5 4 3 2 1

36. From whom did you learn about the measures of environmental protection? **It is possible to put a tick (√) more than once.**

36.1 IFALE: _____

36.2 Farmer Training Center (FTC):_____

36.3 Agricultural extension workers:_____

36.4 Health extension workers: _____

36.5 Local leaders: _____

36.6 Media: _____

36.7 If others, please mention:_____

Saving

37. How would you rate the importance of savings?

5. Very important 4. Important 3. Moderately important 2. Not important 1. Totally unimportant

38. How would you rate yourself in terms of savings?

5. Very good 4. Good 3. Average 2. Poor 1. Very poor

Access to credit and additional income generation schemes

39. Do you have access to credit for additional income generation in your community?
    A. Yes B. No
40. If yes, what are the sources of credit? **It is possible to put more than one tick (√).**
    36.1 A rural credit and saving bank: _____
    36.2 Women's Association: _____
    36.3 NGOs: _____
    36.4 Local money lenders: _____
    36.5 Others, Please specify: _____
41. Do you have any means of additional income generation? A. Yes B. No
    If yes, which income generation scheme do you use? **It is possible to put more than one tick (√).**
    41.1 Vegetable growing: _____
    41.2 Small business: _____
    41.3 Handicraft:_____
    41.4 Poultry:_____
    41.5 Dairy products:_____
    41.6 Fattening (oxen) for sale:_____
    41.7 Bee-keeping:_____
    41.8 Supplying spices:_____
    41.9 Working as a day laborer (out of the farming season):_____
    41.10 Others, please specify: _____

Financial contribution

42. Did you contribute money for a mutual support and/or productive investment in the last two years (2011/12, 2012/13)?
    A. Yes B. No
43. If yes, which?
    _____
44. If yes, who made you aware of or encouraged you to contribute money for a mutual support and/or productive investment? **It is possible to put a tick (√) more than once.**
    44.1 IFALE:_____
    44.2 Agricultural extension workers:_____
    44.3 Health extension workers:_____
    44.4 Friends:_____
    44.5 Local leaders (wereda or kebele): _____
    44.6 Media: _____
    44.7 If others, please mention:_____

45. **Gender equality in household decision-making**

	Who is the main decision maker in your family the following instances? **Put a tick (√).**	**Decision maker**			
		Husband	**Wife**	**Together**	**Others**
45.1	Buying expensive things				
45.2	Selling expensive things				
45.3	Having another child				
45.4	Using birth control				
45.5	Disciplining the child				
45.6	Arranging the marriage for a daughter/son				
45.7	Purchasing agricultural inputs				
45.8	Deciding what crops to sow				

46. Who has informed you of the need for equal participation of husband and wife in decision-making? **It is possible to put a tick (√) more than once.**
    46.1 IFALE:_____
    46.2 Agricultural extension workers:_____
    46.3 Local leaders: _____
    46.4 Media: _____
    46.5 If others, please mention:_____

Awareness of gender equality for development

47. Do you think that males and females can contribute equally to development?
    A. Yes B. No
48. If no, why?_____
49. Who has made you aware of gender equality in development? **It is possible to put a tick (√) more than once.**
    49.1 IFALE:_____
    49.2 Agricultural extension workers: _____
    49.3 Women's association:_____
    49.4 Friends:_____
    49.5 Local leaders (wereda, or kebele): _____
    49.6 Media: _____
    49.7 If others, please mention:_____

Knowledge of laws against gender discrimination

50. Do you know whether there are laws against gender discrimination?
    Yes B. No
51. If yes, please mention them._____
52. Do you make use of it?
    Yes B. No
53. If yes, tell us how._____
54. Who has informed you about the laws against gender discrimination? **It is possible to put a tick (√) more than once.**
    54.1 FALE: _____
    54.2 Women's association:_____
    54.3 Friends:_____
    54.4 Local leaders (wereda, or kebele): _____
    54.5 Media: _____
    54.6 If others, please mention:_____

Awareness of legal protection for women and children

55. Do you know of laws protecting women and children?
    Yes B. No
56. If yes, please mention the laws?
    _____
57. From whom do you know about laws concerning legal protections of women and children? **It is possible to put a tick (√) more than once.**
    57.1 IFALE:_____
    57.2 Agricultural extension workers: _____
    57.3 Women's association: _____
    57.4 Friends: _____
    57.5 Local leaders (wereda, or kebele): _____
    57.6 Media: _____
    57.7 If others, please mention:_____

58. **Family cohesion (Closeness of family members)**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3. moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* each of the following items showing family relations? (**circle one**)	**Use the following scale for column 2** **5. very high** **4. high** **3. average** **2. low** **1. very low** How would you *rate your family members* in terms of each point? (**circle one**)
58.1	Mother and father /husband and wife doing things together	5 4 3 2 1	5 4 3 2 1
58.2	Closeness between mother and child	5 4 3 2 1	5 4 3 2 1
58.3	The time a mother spends with her child (other than meal times)	5 4 3 2 1	5 4 3 2 1
58.4	Closeness between father and child	5 4 3 2 1	5 4 3 2 1
58.5	The time a father spends with his child	5 4 3 2 1	5 4 3 2 1
58.6	Closeness between siblings in a family (between/ among brothers/ sisters or between a brother and a sister or among brothers and sisters)	5 4 3 2 1	5 4 3 2 1
58.7	Closeness among all members of a nuclear family	5 4 3 2 1	5 4 3 2 1
58.8	The quality of relationship among all the members of a nuclear family	5 4 3 2 1	5 4 3 2 1
58.9	Closeness among the members of extended family members	5 4 3 2 1	5 4 3 2 1
58.10	The quality of relationship among extended family members	5 4 3 2 1	5 4 3 2 1

59. From whom do you know about the importance of closeness between/among family members? **It is possible to put a tick (√) more than once.**

59.1 IFALE:_____

59.2 Health extension workers:_____

59.3 Local culture:_____

59.4 Media: _____

59.5 If others, please mention:_____

60. **Traditional practices**

	Items	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1.totally unimportant** How do you rate the importance of *each of the following practices?* (**circle one**)	**Use the following scale for column 2** **5. always** **4. often** **3. sometimes** **2. rarely** **1. not at all** How often have you undertaken/ facilitated each of the following practices? (**circle one**)
60.1	Break-up with a bride who has lost her virginity	5 4 3 2 1	5 4 3 2 1
60.2	Underage marriage/Arranged marriage	5 4 3 2 1	5 4 3 2 1
60.3	Considerable age difference in marriage (old men with young women)	5 4 3 2 1	5 4 3 2 1
60.4	Widow inheritance or levirate marriage	5 4 3 2 1	5 4 3 2 1
60.5	Sexual harassment common in rural areas specifically unwanted deliberate touching, leaning over, cornering, or pinching, unwanted sexual looks or gestures)	5 4 3 2 1	5 4 3 2 1
60.6	Genital mutilation	5 4 3 2 1	5 4 3 2 1
60.7	Rape	5 4 3 2 1	_____
60.8	Uvulectomy	5 4 3 2 1	5 4 3 2 1
60.9	Milk teeth extraction	5 4 3 2 1	5 4 3 2 1
60.10	Marriage by abduction	5 4 3 2 1	5 4 3 2 1
60.11	Engaging children in hard work	5 4 3 2 1	5 4 3 2 1
60.12	Physical abuse for children	5 4 3 2 1	5 4 3 2 1
60.13	Sexual abuse for children	5 4 3 2 1	5 4 3 2 1
60.14	High spending on food and drink in feasts (marriage, *teskar*, graduation ceremony, etc.)	5 4 3 2 1	5 4 3 2 1
60.15	Performing tasks that are normally done by a blacksmith/a weaver/a potter	5 4 3 2 1	5 4 3 2 1
60.16	Increasing the number of holidays	5 4 3 2 1	5 4 3 2 1
60.17	Scratching one's face, uprooting one's hair, and beating one's chest after the death of one's beloved one	5 4 3 2 1	5 4 3 2 1
60.18	Visiting the local magicians to tell you about you	5 4 3 2 1	5 4 3 2 1

61. Who has been important to make you aware of the disadvantages of practicing these traditional practices? **It is possible to put a tick (√) more than once.**
    - 61.1 IFALE: _____
    - 61.2 Agricultural extension workers:_____
    - 61.3 Health extension workers:_____
    - 61.4 Local leaders: _____
    - 61.5 Media: _____
    - 61.6 If others, please mention:_____

62. **Value of children/wanting an additional child**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* each of the following reasons for wanting an additional child? (**circle one**)	**Use the following scale for column 2** **5. very high** **4. high** **3. average** **2. low** **1. very low** How would you *rate yourself in* terms of each of the following reasons for wanting an additional child? (**circle one**)
62.1	Financial support in old age	5 4 3 2 1	5 4 3 2 1
62.2	Old age security	5 4 3 2 1	5 4 3 2 1
62.3	Get help when the child is young	5 4 3 2 1	5 4 3 2 1
62.4	Love	5 4 3 2 1	5 4 3 2 1
62.5	Closeness	5 4 3 2 1	5 4 3 2 1
62.6	Parental name (continuing the generation)	5 4 3 2 1	5 4 3 2 1
62.7	Fun	5 4 3 2 1	5 4 3 2 1

63. Who is the source of your knowledge of the value of children? **It is possible to put a tick (√) more than once.**

63.1 IFALE:_____
63.2 Health extension workers:_____
63.3 Local culture:_____
63.4 Local leaders:_____
63.5 Parents: _____
63.6 Media: _____
63.7 If others, please mention:_____

64. **Family planning**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1.totally unimportant** How do you rate the *importance of each of the following measures*? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of making use of each of the following measures of family planning? (**circle one**)
64.1	Birth spacing	5 4 3 2 1	5 4 3 2 1
64.2	Contraceptions	5 4 3 2 1	5 4 3 2 1

65. **Personal hygiene**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3. moderately important** **2. not important** **1.totally unimportant** How do you rate the *importance of each of the following measures* for personal hygiene? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of making use of each of the following measures of personal hygiene? (**circle one**)
65.1	Bathing oneself regularly	5 4 3 2 1	5 4 3 2 1
65.2	Cleaning one's teeth	5 4 3 2 1	5 4 3 2 1
65.3	Cutting one's nails	5 4 3 2 1	5 4 3 2 1
65.4	Hygiene for young children	5 4 3 2 1	5 4 3 2 1

66. **Maternal and child care**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1.totally unimportant** How do you rate the *importance of each of the following measures* for personal hygiene as well as maternal and child health? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of making use of each of the following measures of maternal and child health? (**circle one**)
66.1	Antenatal care (caring of mother and baby during pregnancy)	5 4 3 2 1	5 4 3 2 1
66.2	Postnatal care (caring for mother and baby after birth)	5 4 3 2 1	**4** 4 3 2 1

67. Who has been important to make you aware of these measures for personal hygiene, family planning as well as maternal and child care? **It is possible to put a tick (√) more than once.**
    67.1 IFALE: _____
    67.2 Agricultural extension workers:_____
    67.3 Health extension workers:_____
    67.4 Local leaders: _____
    67.5 Media: _____
    67.6 If others, please mention:_____

68. **HIV-AIDS control**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1.totally unimportant** How do you rate the *importance of each of the following measures of HIV-AIDS control*? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of using each of the following measures of HIV-AIDS control? (**circle one**)
68.1	Abstinence	5 4 3 2 1	5 4 3 2 1
68.2	Condoms	5 4 3 2 1	5 4 3 2 1
68.3	Sterilization of sharp objects before use	5 4 3 2 1	5 4 3 2 1
68.4	Faithfulness	5 4 3 2 1	5 4 3 2 1

69. From whom do you know about the importance and practice of the measures of HIV-AIDS control? **It is possible to put a tick (√) more than once.**

69.1 IFALE: _____

69.2 Agricultural extension workers:_____

69.3 Health extension workers:_____

69.4 Local leaders: _____

69.5 Media: _____

69.6 If others, please mention:_____

70. **Social justice activities**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* the following activities?	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of each of the following activities?
70.1	Marriage arrangement with other social classes (smiths, potters, weavers) in your community	5 4 3 2 1	5 4 3 2 1
70.2	Fair treatment of all people irrespective of differences in religion in all spheres of life	5 4 3 2 1	5 4 3 2 1
70.3	Encouraging women or girls to participate fully in all spheres of life	5 4 3 2 1	5 4 3 2 1
70.4	A male preparing food in the house (baking *injera*, preparing sauce, etc.)	5 4 3 2 1	5 4 3 2 1
70.5	A male doing household chores	5 4 3 2 1	5 4 3 2 1
70.6	A male fetching water from a nearby source	5 4 3 2 1	5 4 3 2 1
70.7	A female plowing the farm land using oxen	5 4 3 2 1	5 4 3 2 1
70.8	A female participating in resolving conflicts (both private and public)	5 4 3 2 1	5 4 3 2 1
70.9	Active engagement in social activism or social change in the community (for example playing a leading role in using modern agricultural practices or overcoming issues such as underage marriage, genital mutilation, rape, abduction and human trafficking)	5 4 3 2 1	5 4 3 2 1
70.10	Supporting the physically handicapped	5 4 3 2 1	5 4 3 2 1
70.11	Taking care of the elderly	5 4 3 2 1	5 4 3 2 1
70.12	Helping the needy by providing moral/financial/ material support	5 4 3 2 1	5 4 3 2 1

71. Who has informed you about the importance of social justice (equality, equity and fairness)? **It is possible to put a tick (√) more than once.**
    71.1 IFALE: _____
    71.2 Agricultural extension workers:_____
    71.3 Health extension workers:_____
    71.4 Local leaders: _____
    71.5 Media: _____
    71.6 If others, please mention:_____

72. **Democratic culture activities**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* the following activities?	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of each of the following activities?
72.1	Distinguishing facts from opinions	5 4 3 2 1	5 4 3 2 1
72.2	Using participatory decision making	5 4 3 2 1	5 4 3 2 1
72.3	Respect for other individuals	5 4 3 2 1	5 4 3 2 1
72.4	Willingness to listen, even when confronted with a view you disagree with	5 4 3 2 1	5 4 3 2 1
72.5	Willingness to reflect on one's actions, recognize mistakes, and learn from them	5 4 3 2 1	5 4 3 2 1
72.6	Communication at eye level (as opposed to talking up or down to someone)—regardless of age	5 4 3 2 1	5 4 3 2 1
72.7	Respect for difference in perceptions, beliefs about an idea	5 4 3 2 1	5 4 3 2 1
72.8	Respect for diversity due to ethnicity, language, religious beliefs, etc.	5 4 3 2 1	5 4 3 2 1
72.9	Respecting everyone's civil and legal rights	5 4 3 2 1	5 4 3 2 1

73. Who has informed you about the importance of democratic culture? **It is possible to put a tick (√) more than once.**

73.1 IFALE: _____

73.2 Agricultural extension workers:_____

73.3 Health extension workers:_____

73.4 Local leaders: _____

73.5 Media: _____

73.6 Community policing:_____

73.7 If others, please mention:_____

74. **Ways of conflict resolution**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* the following activities?	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself* in terms of each of the following activities?
74.1	Resolving controversial issues through discussion	5 4 3 2 1	5 4 3 2 1
74.2	Resolving conflicts through9negotiations	5 4 3 2 1	5 4 3 2 1
74.3	Resolving conflicts through apology	5 4 3 2 1	5 4 3 2 1
74.4	Resolving conflicts through legal means	5 4 3 2 1	5 4 3 2 1

75. Who has informed you about the importance of the measures of conflict resolution? **It is possible to put a tick (√) more than once.**

75.1 IFALE: _____

75.2 Agricultural extension workers:_____

75.3 Health extension workers:_____

75.4 Local leaders: _____

75.5 Media: _____

75.6 If others, please mention:_____

76. **Self-concept**

	Item	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1. totally unimportant** How do you rate the *importance of* each of the following measures of self-perception? (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you *rate yourself in* terms of each of the following measures of self-perception? (**circle one**)
76.1	Being pleased with oneself	5 4 3 2 1	5 4 3 2 1
76.2	Being a good husband/wife	5 4 3 2 1	5 4 3 2 1
76.3	Being pleased with one's appearance	5 4 3 2 1	5 4 3 2 1
76.4	Being a good mother/father	5 4 3 2 1	5 4 3 2 1
76.5	Being a good son/daughter	5 4 3 2 1	5 4 3 2 1
76.6	Finding oneself to be knowledgeable	5 4 3 2 1	5 4 3 2 1
76.7	Finding oneself to be skillful	5 4 3 2 1	5 4 3 2 1
76.8	Finding oneself to be successful in life	5 4 3 2 1	5 4 3 2 1
76.9	Finding yourself important contributor to the community	5 4 3 2 1	5 4 3 2 1

77. Who has been important in developing your self-concept. **It is possible to put a tick (√) more than once.**
    77.1 IFALE: _____
    77.2 Agricultural extension workers:_____
    77.3 Health extension workers:_____
    77.4 Local leaders: _____
    77.5 Local culture:_____
    77.6 Parents:_____
    77.7 Media: _____
    77.8 If others, please mention:_____

78. **Self-efficacy**

	Items	**Use the following scale for column 1** **5. very important** **4. important** **3.moderately important** **2. not important** **1. totally unimportant** How would you rate *the importance of doing each of the following oneself?* (**circle one**)	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How do you rate *yourself in terms of carrying out each of the following activities yourself?* (**circle one**)
78.1	Buying items in the market	5 4 3 2 1	5 4 3 2 1
78.2	Going to church/mosque	5 4 3 2 1	5 4 3 2 1
78.3	Going to clinic/ hospital	5 4 3 2 1	5 4 3 2 1
78.4	Buying food in a restaurant	5 4 3 2 1	5 4 3 2 1
78.5	Taking the bus/taxi/bajaj	5 4 3 2 1	5 4 3 2 1
78.6	Making transactions in a (rural) bank	5 4 3 2 1	5 4 3 2 1
78.7	Paying bills	5 4 3 2 1	5 4 3 2 1
78.8	Crossing the bridge (to the other side of the village)	5 4 3 2 1	5 4 3 2 1

79. Who helped develop your self-efficacy? **It is possible to put a tick (√) more than once.**
    79.1 IFALE: _____
    79.2 Agricultural extension workers:_____
    79.3 Health extension workers:_____
    79.4 Local leaders: _____
    79.5 Media: _____
    79.6 If others, please mention:_____
80. In your opinion, are more resources provided for those who are in greatest need?
    A. Yes B. No
81. If yes, could you provide an example?
    _____

82. **The effectiveness of IFALE (Only for IFALE participants)**

	Items	**Use the following scale for column 2** **5. very good** **4. good** **3. average** **2. poor** **1. very poor** How would you rate IFALE in terms of addressing each of the following issues? (**circle one**)
82.1	Having relevance to the daily realities and needs of the community	5 4 3 2 1
82.2	Having access to people living in remote areas	5 4 3 2 1
82.4	Giving equal opportunity to women to participate in class	5 4 3 2 1
82.5	Focusing on knowledge that encourages and supports citizens to lead sustainable lives	5 4 3 2 1
82.6	Focusing on skills that encourage and support citizens to lead sustainable lives	5 4 3 2 1
82.7	Focusing on attitudes that encourage and support citizens to lead sustainable lives	5 4 3 2 1
82.8	Focusing on values that encourage and support citizens to lead sustainable lives	5 4 3 2 1

83. How would you agree that facilitators help to improve conditions in your community?
    5. Strongly agree 4. Agree 3. Moderately agree 2. Disagree 1. Strongly disagree
84. Which of the following do you consider as the five most important solutions to improve IFALE?
    84.1 Allocating adequate budget: _____
    84.2 Providing more training to facilitators: _____
    84.3 Improving the commitment of the leaders of the sector at various levels:_____
    84.4 Strengthening integration among stakeholders (in the agriculture, health sectors etc.): _____
    84.5 Solving attitudinal problem among learners ('I am too old to learn'; 'Learning at this age is a waste of time'): _____
    84.6 Increasing the participation of women: _____
    84.7 Supplying primers to the learners: _____
    84.8 Providing learning facilities to the learners: _____
    84.9 Decreasing the number of the meetings: _____
    84.10 Conducting classes in convenient times rather than after the tiring water and soil conservation chore (safety-net chore): _____
    84.11 Improving learning conditions (e.g. under the green wood trees without seats):____
    84.12 Others (if any): _____

Thank you for your cooperation and participation in this survey!

F. Research Permit

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Lene Buchert
Pedagogisk forskningsinstitutt
Universitetet i Oslo
Postboks 1092 Blindern
0317 OSLO

Vår dato: 10.06.2013 Vår ref:34382 / 3 / AMS Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 28.04.2013. Meldingen gjelder prosjektet:

34382	*The Contribution of Adult Literacy Education to Sustainable Development in Ethiopia*
Behandlingsansvarlig	*Universitetet i Oslo, ved institusjonens øverste leder*
Daglig ansvarlig	*Lene Buchert*
Student	*Fesseha Abadi Weldemichael*

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 28.12.2014, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Vigdis Namtvedt Kvalheim

Anne-Mette Somby

Kontaktperson: Anne-Mette Somby tlf: 55 58 24 10
Vedlegg: Prosjektvurdering
Kopi: Fesseha Abadi Weldemichael, College of Social Sciences and Languages, Mekelle University, Mekelle, Ethiopia PoBox 451, -1 UKJENT

G. University of Oslo's Confirmation Letter for Data Collection

UiO : Faculty of Educational Sciences
University of Oslo

To whom it may concern

Date: 12.12.2012
Your ref.:
Our ref.:

Confirmation

Mr. Fesseha Abadi Weldemichael is pursuing his PhD study in the Department of Educational Research at the University of Oslo, Norway. His PhD research topic is on *the Contribution of Adult Literacy Education to Sustainable Development in Ethiopia.*

As the Department of Educational Research at the University of Oslo is now sending the PhD student researcher for field work in Ethiopia, all relevant and concerned government officials at various levels, collaborating organizations, partners, facilitators and learners of the adult literacy education sub-sector are kindly requested to provide him the required information and also facilitate his endeavors for the smooth accomplishment of the data collection process.

We are very grateful in advance for your kind cooperation.

Sincerely yours

UNIVERSITY OF OSLO
Department of Educational Research
Box 1092 Blindern
N-0317 Oslo

Emil Trygve Hasle
Senior Executive Officer
Department of Educational Research

Department of Educational Research
Postal addr.: PO Box 1092, Blindern, 0317 Oslo
Visiting addr.: Sem Sælands vei 7 Helga Engs hus, 5. etasje

Phone: (+47) 22 84 44 75
Telefax: (+47) 22 85 42 50
postmottak@uv.uio.no
www.uv.uio.no
Org. no.: 971 035 854

H. **Mekelle University's Confirmation Letter for Data Collection**

MEKELLE UNIVERSITY
COLLEGE OF SOCIAL SCIENCES AND LANGUAGES

☎ 251-04-40-55-30
✉ 451

Ref. No: CSSL/216/2008
Date: 24/7/2008

To Whom It May Concern

Ato Fesseha Abadi Weldemichael who is a teaching staff at Mekelle University, College of Social Sciences and Languages is pursuing his PhD Study in the University of Oslo, Norway. The PhD study about the contribution of Adult Literacy Education to Sustainable Development in Ethiopia is hoped to play a significant role not only in understanding adult literacy education but also in improving its quality.

This is, therefore, to kindly request you to provide the researcher with any relevant data for the success of his study.

We thank you in advance for your kind cooperation

Best regards.

Gebreyesus Tekle Bahta
Dean, College of Social Sciences and Languages

I. Informed Consent Form for Interview

University of Oslo
Faculty of Education
Department of Institute for Educational research
Postboks 1092 Blindern
Mobile Phone:+4792558585
E-mail:f.a.weldemichael@ped.uio.no

I volunteer to participate in a research project conducted by a research fellow Mr Fesseha Abadi Weldemichael from the University of Oslo. I understand that the project is designed to gather information about the Role of Adult Literacy Education for sustainable Development. I will be one of approximately 90 people being interviewed for this research.

My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one on my campus will be told.

1. **I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.**

2. **Participation involves being interviewed by a researcher from Oslo University, Norway. The interview will last approximately 30-45 minutes. During the interview, notes will be written and the interview will be audiotaped, and may be videotaped upon your agreement.**

3. **I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.**

4. **No one except the researcher and his assistants will be present at the interview. Neither will any other person other than the researcher and his supervisors (Professor Lene Buchert and Dr Wim Hoppers) have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.**

5. **I understand that the findings or the results of the study might be presented in national and international conferences, published in the form of articles or monograph as of 2013.**

6. **I have read and understood the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.**

7. **I have been given a copy of this consent form.**

_____ _____

My Signature **Date**

_____ _____

My Printed Name **Signature of the Investigator**

For further information, please contact Ato Fesseha Abadi Weldemichael through the address given at the beginning of this page

J.**Letter from Kilte-Awlaelo Health Office (Tigray)**

ብሄራዊ ክልላዊ መንግስቲ ትግራይ

The Government of the National Regional, State of Tigray,

ቤት ፅሕፈት ጥዕና ወረዳ ክልተ አውላዕሎ

Kilte Awalaelo Wereda Health office

ቁፅሪ 714/11/06

ዕለት 13/03/2006

ናብ --------------------------- ጥዕና ኬላ /ሱፐርቫይዘር/

ዋኒን፡- ብዛዕባ ዝተዋደደ ተግባር ተኮር ትም/ቲ ንአባፅሕ (IFAE) ይምልከት፡

ኣብ ርእሰ ዋኒን ከምዝተገለፀ ሃገርና ዝሓዘቶ ስትራቴጂ ልምዓት ጥዕና ኣብ ዝተቐመጠሉ ግዜ ሰሌዳ ንከዕወት ዝተምሃረ ሓይሊ ሰብ ተወዳዳሪ ዘይብሉ ድርሻ ከምዘለዎ ይእመን። መንግስትና ድማ እቲ ብሰፊሑ እናገልገልናዮ ዝርከብ ዘይተምሃረ ሕ/ሰብና ናብርኡ ንምምሕያሽን ጥዕንኡ ንምሕላውን ዝሕግዞ ተግባራዊ ትምህርቲ ክረክብ ምእንቲ "ዝተዋደደ ተግባር ተኮር ትምህርቲ ንአባፅሕ" ዝብል ፕሮግራም ቀሪፁ ከተግብርን ካብ ፌደራል ክሳብ ጣብያ ዘለዉ ሴክተራት ጥዕና ፣ ሕርሻ ፣ ማይነፍትን ትምህርትን ብዋናነት ክዋስኡሉን ኣብ መምርሒ እቲ ፕሮግራም አርቂቑ እዩ።

ስለዚ ኣብ ኩሉን ጣብያታት እትርከቡ ሰብ ሞያ ጥዕና እዚ ፕሮግራም መደባትና ንምስላጥ ዘለዎ ረብሓ ብውነ ተገንዚብኩም ኣብዑ ምስ ዘለዉ ካልኦት መዳርግቲ ሴክተራት ብምውዳድን ኣብ ትልምኩም ብምክታትን ክትሰርሑሉን ከምዝግባእ እንዳሓበርና ብወገንና እውን እንዳተከታተልናን እንዳገምገምናን ዘለዎ ደረጃ ንምፍላጥ ይኸን ናይ ደገፍ ግብረ መልሲ ንምሃብ ምእንታን ክጥዕም ግና ኣብዚ ዓብዩ መደብ እዚ ዝሰራሕኩምዎ ዝርዝር ስራሕቲ ኣብ ወርሓዊ ፀብፃብኩም አካቲትኩም ክትልእኩልና ብአፅንኦት ነተሓሳስብ።

በዝሒ ክፍለግዜ ---------- በዝሒ ዝተምሃሩ ተባ -------- ኣነ -------- ድምር ----------

ዘጋጠመ ፀገማት --

መፍትሒ --

ነዚ ሱፐርቫይዘር ምስ ወርሓዊ ሪፖርት እናጠቓለለ ይሰደልና።

"ወፍሪ መለስ ንምድሓን አደታትን ህፃናትን!"

ፍፁም ብርሃን ወ/አረጋይ

ሓላፊ ቤት ፅሕፈት

ቅዳሕ፡

- ንዋና አማሓዳሪ ወ/ክ/አውላዕሎ
- ንቤት ፅሕፈት ትም/ቲ ወ/ክ/አውላዕሎ
- ንኩሎም ከይዲ ስራሕቲ ቤት ፅሕፈትና

ውቅሮ

✉ 11 ☏ 031-4-43-01-13

ውቅሮ ትግራይ ኢትዮጵያ

Wukro, Tigray, Ethiopia

ራእይና ጥዑይ ሰድራ ኣብ ሕድሕድ ገዛን ወረዳናን ምርኣይ

T.IN. R.D

K. Letter from Meqhet Agriculture and Rural Development Office (Amhara)

ቁጥር መ/ጠ/ ገ/ል/ፅ-/217/06

ቀን 24/02/2006ዓ.ም

ለ---- Astqo ---- ቀበሌ ል/ጣቢያ ጽ/ቤት

ለ ---------------------------- ቀበሌ አስተዳደር ጽ/ቤት

ጉዳዩ:- የተግባር ተኮር ጐልማሶች ትምህርት ስለጣጥ ስለማሳወቅ ይመለከታል//

ከላይ በርዕሱ እንደተገለፀው በወረዳችን ለሁሉም ቀበሌዎች 227 ጣቢያ የአርሶ አደረን ግንዛቤ ለማሳደግ ለሁሉም ፓኬጆች ላይ ለማስልጠን ብሎም ከመሃይምነት ለማውጣት በያዘው የመንግስት መርሃ ግብር ላይ የቀበሌ ልማት ጣቢያ ባለሙያዎች የሚጠበቅባቸውን ለመወጣት ለቅድመ ዝግጅትና ለተግባር ምዕራፍ መከናወን ያለባቸውን ዋና ዋና ነጥቦች እንደሚከተለው እናሳውቃለን::

በቅድመ ዝግጅት ምዕራፍ

- ለዳሳ ትምህርት የሚሰጥባቸውን ጣቢያዎች ለመለየት በህብረተሰቡ እንዲሰራ ማድረግና ለጐልማሶች ምቹ ሁኔታ መፍጠር
- የገበሬዎች ማሰልጠኛ ጣቢያ የተመረጠ ከሆነ የውስጥና የውጭ ገፅታዎችን ማስተካከል ለጐልማሶች ምቹ ሁኔታ መፍጠር፣
- ፕሮግራሙን በተሳካ ሁኔታ ለመፈፀም ከአጋር አካላት ጋር የጋራ እቅድ ማዘጋጀት፣
- ከተዘጋጀው የጋራ እቅድ በመነሳት የግብርና ልማት ፓኬጅ ማስፈፀሚያ እቅድ ማዘጋጀት የሰልጣኞችን የእውቀት ደረጃ ለማጤን እቅድን ደረጃ በደረጃ ማውጣት፣
- ሰልጣኞች እውቀትና ክህሎትን በጥሞና እንዲጨብጡ ለማድረግ የስልጠና ዘዴ መወሰን/ ለድራማ፣በሰርቶ ማሳያ፣መከታተልና መደገፍ፣ ቪዲዮ ማሳየት አስፈላጊም ከሆነ የአካባቢውን ችግር በዳሰሳ ጥናት በማረጋገጥ ለሰልጣኞች ማቅረብ ተገቢ ይሆናል::
- የስልጠና ፕሮግራም ማዘጋጀት እነሱም በእቅድ፣ በዝግጅት ፣በተግባርና በግምገማ የተከፈለ ሲሆን ሁሉም በውጤት መለካት ይኖርባቸዋል::
- ከአጋር አካላት ጋር ያለውን ትስስርና ትብብር ማጠናከር
- አጋር አካላት /የትምህርት ባለሙያዎች፣የጤና፣ ባለሙያዎች ፣ግብርና የፖሊስ አባላት እና የአካባቢ ጥበቃ ባለሙያዎች / የአ/አደረን ችግርና ፍላጐት በውል ተረድተው እንዲያግዙ ማድረግ
- በአጠቃላይ የቀበሌውን መሰረታዊ መረጃዎች ለማጠናከር ለሰልጣኞች እንዲጨብጡ ለማድረግ ማዘጋጀት ይጠበቃል::

በተግባር ምዕራፍ

- የስልጠና አሳማ ሰልጣኞች ከስልጠና በኋላ ምን መስራት እንደሚችሉ የሚገልፅ መሆኑን ማረጋገጥ
- የአካባቢ ፔቴንሻል መሰረት ያደረገ ስጠና መስጠት
- የሴቶችን ተሳትፎ በተግባር ማረጋገጥና ተጠቃሚ ማድረግ
- በሚሰጠው ስልጠና ሰልጣኞች የሚያሳትፍ መሆን አለበት
- ሰልጣኞች የአካባቢውን ችግር እንዲለዩ ቅድሚያ መስጠት
- የትምህርት አሰጣጡ 80% በተግባር ተኮር /በመስክ አየሰራ የሚማረበት ሲሆን 20% በተወሰ የፖኬጆችን ሁለንተናዊ ጉዳዮች ላይ በአጭሩ በማዘጋጀት ለሰልጣኞች በቀላል አማራጭ ማስጨበጥ እና ከምንሰጠው ስልጠና ርዕስ ጋር የሚዛመድ መረጃ ማቅረብ
- ሰልጣኞች ተሞክሮን የመቀባበል ልምድ እንዲያዳብሩ ማድረግ
- በተሰጣቸው ትምህርት ሰልጣኞችን ግብረ መልስ በመጠየቅ የታዩ ክፍተቶችን ማስተካከል
- ሰልጣኞችን ከ10-15 አባላት ያሉ ቡድን ለማደራጀት ተሳትፏቸው እንዲዳብር ማድረግ ወሳኝ ተግባር ነው::
- አሰልጣኝ የአስተ ስልጠናውን ካጠናቀቀ በኋላ የስልጠናውን አሰማ በድጋሚ ማስታወስ ይኖርባቸዋል::

"ለጐልማሶች ትምህርት ትኩረት በመስጠት የበኩላችንን በመወጣት ድህነትን ራዕይ እናፋጥናለን"

ደሣለ ያለዉ ሽ...
Desale Yalew Sh...

ግልባጭ

- ለመ/ወ/ም/አስተዳዳሪ
- ለመ/ወ/ት/ጽ/ቤት ለጐልማሶች አስተባባሪ

L. Table on gender equality in decision making in the family by number of IFALE participants and non-participants and by gender

Item		Tigray				Amhara			
		Married IFALE participants (M*=34,F**=35, Total=69)		Married Non-participants (M=42, F=35, Total=77)		Married IFALE participants (M=53, F=20, Total =73)		Married Non-participants (M=44, F=39, Total=83)	
		Freq	%	Freq	%	Freq.	%	Freq	%
1 Main decision maker in your family in for buying expensive things	Husband	4 M=1 F=3	5.8 M=1.45 F=4.35	3 M=1 F=2	3.9 M=1.3 F=2.6	9 M=6 F=3	12.33 M=8.22 F=4.11	15 M=5 F=10	18.0 M=6.02 F=11.98
	Wife	4 M=1 F=3	5.8 M=1.45 F=4.35	0	0	6 M=5 F=1	8.22 M=6.85 F=1.37	2 M=1 F=1	2. 41 M=1.205 F=1.205
	Husband and wife, together	61 M=32 F=29	88.41 M=46.38 F=42.03	74 M=41 F=33	96.1 M=53.24 F=42.86	53 M=38 F=15	72.60 M=52.05 F=20.55	62 M=36 F=26	74.70 M=43.37 F=31.33
	Others	0	0	0	0	5 M=4 F=1	6.85 M=5.48 F=1.37	4 M=2 F=2	4.82 M=2.41 F=2.41
2 Main decision maker in your family for selling expensive things	Husband	3 M=1 F=2	4.35 M=1.45 F=2.90	4 M=1 F=3	5.19 M=1.30 F=3.89	6 M=4 F=2	8.22 M=5.48 F=2.74	16 M=5 F=11	19.28 M=6.025 F=13.255
	Wife	3 M=1 F=2	4.35 M=1.45 F=2.90	0	0	5 M=4 F=1	6.85 M=5.48 F=1.37	2 M=0 F=2	2.41 M=0 F=2.41
	Husband and wife, together	63 M=32 F=31	91.3 M=46.37 F=44.93	7 M=41 F=32	94.81 M=53.25 F=41.56	58 M=42 F=16	79.45 M=57.53 F=21.92	60 M=36 F=24	72.29 M=43.37 F=28.92
	Others	0	0	0	0	4 M=3 F=1	5.48 M=4.11 F=1.37	5 M=3 F=2	6.02 M=3.61 F=2.41
3 Main decision maker in your family for having another child	Husband	1 M=0 F=1	1.45 M=0 F=1.45	0	0	1 M=1 F=0	1.37 M=1.37 F=0	2 M=0 F=2	2.41 M=0 F=2.41
	Wife	3 M=1 F=2	4.35 M=1.45 F=2.90	0	0	6 M=2 F=4	8.22 M=2.74 F=5.48	4 M=1 F=3	4.82 M=1.21 F=3.61
	Husband and wife, together	65 M=33 F=32	94.20 M=47.82 F=46.38	77 M=42 F=35	100 M=54.55 F=45.45	66 M=50 F=16	90.41 M=68.49 F=21.92	77 M=43 F=34	92.77 M=51.81 F=40.96
	Others	0	0	0	0	0	0	0	0
4 Main decision maker in your family for using birth control	Husband	0	0	0	0	0	0	3 M=1 F=2	3.61 M=1.20 F=2.41
	Wife	6 M=1 F=5	8.70 M=1.45 F=7.25	3 M=1 F=2	3.90 M= 1.3 F=2.6	8 M=5 F=3	10.96 M=6.85 F=4.11	12 M=5 F=7	14.46 M=6.03 F=8.43
	Husband and wife, together	63 M=33 F=30	91.30 M=47.82 F=43.48	72 M=40 F=32	93.51 M=51.95 F=41.56	64 M= 48 F=16	87.67 M=65.75 F=21.92	68 M=38 F=30	81.93 M=45.78 F=36.15
	Others	0	0	2 M=1 F=1	2.60 M= 1.30 F=1.30	1 M=0 F=1	1.37 M=0 F=1.37	0	0

5 Main decision maker in your family for disciplining the child	**Husband**	**2** M=0 F=2	**2.90** M=0 F=2.90	**4** M=0 F=4	**5.19** M=0 F=5.19	**21** M=1 F=5	**28.77** M=21.9 F=6.85	**31** M=15 F=16	**37.80** M=18.29 F=19.51
	Wife	**4** M=1 F=3	**5.80** M=1.45 F=4.35	**2** M=0 F=2	**2.60** M=0 F=2.60	**3** M=2 F=1	**4.11** M=2.74 F=1.37	**1** M=1 F=0	**1.22** M=1.22 F=0
	Husband and wife, together	**63 M=33 F=30**	**91.30 M=47.82 F=43.48**	**71 M=42 F=29**	**92.21 M=54.55 F=37.66**	**48 M=34 F=14**	**65.75 M=46.57 F=19.18**	**50 M=28 F=22**	**60.98 M=34.15 F=26.83**
	Others	**0**	**0**	**0**	**0**	**1** M=1 F=0	**1.37** M=1.37 F=0	**0**	**0**
6 Main decision maker in your family for arranging marriage for a daughter/son	**Husband**	**1** M=0 F=1	**1.45** M=0 F=1.45	**1** M=1 F=0	**1.30** M= 1.30 F=0	**9** M=5 F=4	**12.33** M=6.85 F=5.48	**13** M=5 F=8	**15.66** M=6.02 F=9.64
	Wife	**3** M=1 F=2	**4.35** M=1.45 F=2.90	**0**	**0**	**5** M=4 F=1	**6.85** M=5.48 F=1.37	**2** M=1 F=1	**2.41** M=1.205 F=1.205
	Husband and wife, together	**65 M=33 F=32**	**94.20 M=47.82 F=46.38**	**76 M=41 F=35**	**98.70 M=53.25 F=45.45**	**52 M=38 F=14**	**71.23 M=52.05 F=19.18**	**62 M=34 F=28**	**74.70 M=40.96 F=33.74**
	Others	**0**	**0**	**0**	**0**	**7** M=6 F=1	**9.59** M=8.22 F=1.37	**6** M=4 F=2	**7.23** M=4.82 F=2.41
7 Main decision maker in your family for purchasing agricultural inputs	**Husband**	**0**	**0**	**5** M=1 F=4	**6.58** M=1.32 F=5.26	**14** M=10 F=4	**19.18** M=13.70 F=5.48	**29** M=15 F=14	**34.94** M=18.07 F=16.87
	Wife	**6** M=1 F=5	**8.70** M=1.45 F=7.25	**0**	**0**	**3** M=2 F=1	**4.11** M= 2.74 F=1.37	**5** M=2 F=3	**6.02** M=2.41 F=3.61
	Husband and wife, together	**63 M=33 F=30**	**91.30 M=47.82 F=43.48**	**71 M=41 F=30**	**93.42 M=53.95 F=39.47**	**54 M=39 F=15**	**73.97 M=53.42 F=20.54**	**49 M=27 F=22**	**59.04 M=32.53 F=26.51**
	Others	**0**	**0**	**0**	**0**	**2** M=2 F=0	**2.74** M=2.74 F=0	**0**	**0**
8 Main decision maker in your family for what crops to sow	**Husband**	**1** M=0 F=1	**1.45** M=0 F=1.45	**2** M=1 F=1	**2.63** M=1.315 F=1.315	**19** M=11 F=8	**26.03** M=15.07 F=10.96	**36** M=19 F=17	**43.37** M=22.89 F=20.48
	Wife	**5** M=1 F=4	**7.25** M=1.45 F=5.80	**0**	**0**	**3** M=2 F=1	**4.11** M=2.74 F=1.37	**6** M=2 F=4	**7.23** M=2.41 F=4.82
	Husband and wife, together	**63 M=33 F=30**	**91.30 M=47.82 F=43.48**	**74 M=41 F=33**	**97.37 M=53.95 F=43.42**	**51 M=40 F=11**	**69.86 M=54.79 F=15.07**	**41 M=23 F=18**	**49.40 M=27.71 F=21.69**
	Others	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: M*=male, F**=female

Doctoral Candidate: Fesseha Abadi Weldemichael

Title of Thesis: Integrated Functional Adult Literacy Education for Empowerment and Sustainable Development in Ethiopia: A Comparative Study of Tigray and Amhara Regions

Abbreviation for different types of corrections:

Cor—Correction of Language

Cplft: Change of page layout or text format

Page, paragraph and line	**Original text**	**(Type of correction) Corrected text**
P.IX, L.18	Analytical Model for the Study…p. 84	(Cplft) Analytical Model for the Study…p. 85
P. IX, L.29	Ethical Issues...p.1033	(Cplft) Ethical issues ...p. 103
P. X, L.40	7.3.11 Importance and Practice of Maternal and Child Care…1488	(Cplft) 7.3.11 Importance and Practice of Maternal and Child Care…148
P. XIV, L.5	Table 7.14: …statistical significance…146	(Cplft) Table 7.14: …statistical significance…147
P.23, Par. 3, L.8	…Campaign, 1974-1976; …	(Cplft) …Campaign, 1974-76; …
P.29, Par. 1, L.5	…period (1997/98-2001/2002), …	(Cplft) …period (1997/98-2001/02), ….
P.83	Figure 4.1: A cake for…	(Cplft) Figure 4.6 A cake for….
P.86, Par. 2, L.8	…or succeed at tasks.	(Cor)…or succeed in tasks.
P.88, Par. 4, L.7	…unobservables' Chakravartty (2015, p. 10).	(Cplft) …unobservables' (Chakravartty, 2015, p. 10).
P.91, Table 5.1	Source: *CSA (2013)…as cited in cited in….	(Cor) Source: *CSA (2013)…as cited in ….
P.97, Par. 1, L.4	…seems to not have influenced…	(Cor) seems not to have influenced
P.113, Par.1, L.1	The findings…of building a relevant curriculum….	(Cor) The findings…of implementing a relevant curriculum….
P.113, Par. 2, L.2	…structure (Ingram, 2018; Nedović & Božinović (2013).	(Cplft) …structure (Ingram, 2018; Nedović & Božinović, 2013).
P.114, Par.1, L.1	…in the MOE provides….	(Cor) …in the MoE provides….
P.118, Par.1, L.1-2	….This amount also covered the salary…	(Cor) ….The Amhara regional government also covered the salary…
P.120, Par.2, L.7	…and of poor pay for facilitators.	(Cor) …and the poor pay for facilitators.
P.124, Par.4, L.4-7	While the number of IFALE voters was slightly higher in Tigray than in Amhara, the number of non-participants was higher than that of participants in Tigray. The opposite was the case in Amhara.	(Cor) The two sentences do not make sense and should be deleted

P.124, Table 7.2, column 4, last line	86 (6%)	(Cor) 86 (89%)
P.125, Par.4, L.6-7	The difference in terms of IFALE participants (61 in Tigray and 44 in Amhara) was statistically significant implying that IFALE only made an impact in Tigray.	(Cor) The difference in terms of IFALE participants (61 in Tigray and 44 in Amhara) was statistically significant. (The last phrase is deleted)
P.135, Par. 2, L.5	…(Cameron & Cameron, 2005)….	(Cor) *(Cameron & Cameron, 2005)* or the source within the brackets should be deleted
P.157, Par. 3, L.9	…women's empowerment in Turkey did not….	(Cor) …women's empowerment in Turkey (Kagitcibasi et al., 2005) did not….
P.167, Par. 1, L. 5-6	…to live together' (Delors (1996)….	(Cplft) …to live together' (Delors,1996)….
P.186	Figure 9.7: Summary of results…	(Cplft) Figure 9.1: Summary of results…
P.237, Q.41	Missing sentence	(Cor) Do you have any means of additional income generation? A. Yes B. No.