

# HIV&AIDS KNOWLEDGE OF AGRICUTURAL EXTENSION WORKERS AND THE CHALLENGE TO MAINSTREAM IN THEIR SECTOR

The case of Awassa Zuria District, Ethiopia

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**Specialization in Rural Development and AIDS** 

By:

**Wondimu Mamo** 

Van Hall Larenstein University of Applied Sciences
Wageningen, The Netherlands
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#### **ABBREVIATION**

AIDS Acquired Immune Deficiency Syndrome

BCC Behavioural change communication

DFID Department for International Development

DHS Demographic and Health Survey

FAO Food and Agriculture Organisation

FGD Focus Group Discussion

HIV Human immunodeficiency Virus

IEC Information, education and communication

MoH Ministry of Health

HAPCO HIV/AIDS Prevention and Control Office

PLWHA People Living With HIV/AIDS

SNNPR Southern Nations Nationalities and People Region

USAID United State Aid for International Development

UNDP United Nations Development Program

UNGASS United Nations General Assembly Special Session

VCT Voluntary Counselling and Testing

WB World Bank

#### **ABSTRACT**

This study attempted to fill in the research gap observed in studies related to status of the agricultural sector in mainstreaming HIV/AIDS in to their development strategies, programs and plans in sidama, SNNPR. It was conducted taking the case of sidama zone. To this end, the study assessed the knowledge of agricultural extension workers and the status of the agricultural sector in implementing internal and external HIV/AIDS mainstreaming at district level through survey and qualitative methods.

The survey was undertaken on randomly selected staff of the agricultural sector offices at the district using self-filled questionnaires. The qualitative method that was used at the sectoral, group and individual levels include; focused group discussion and document review and direct observation. In total 30 agricultural extension staffs from two purposively selected study villages were participated in the survey and 2 focus group discussion each comprises of 10 members were involved in the discussion.

The Findings of the study revealed that there was universal knowledge of HIV/AIDS in the agricultural extension agents but no attempt have not been made to develop shared understanding and to avoid confusion and misunderstanding about the meaning and practice of HIV/AIDS mainstreaming in the sector. In addition, leadership and commitment was found to be inadequate and HIV/AIDS impact assessment has not been done. Furthermore HIV/AIDS workplace policy has not been developed; agricultural development strategies, programs and plans have not been analysed in light of their risks to HIV/AIDS and opportunity to fight against the pandemic.

The study investigate that the scope of HIV/AIDS mainstreaming in the agricultural sector has reduced to include HIV/AIDS prevention and control activities without modifying and revising key strategies and programs in relation to HIV/AIDS. In general, the study reveals that the sector has been involved in exercising of HIV/AIDS mainstreaming.

Thus to effectively implement HIV/AIDS mainstreaming activities, it is essential that the sector and its staffs share a common understanding of what HIV/AIDS mainstreaming means and it is imperative to strengthen upper level commitment and participation of senior managements. There is also a clear need for the sector to conduct HIV/AIDS impact assessment and establish monitoring and evaluation systems. More over the study suggested that the sector need to develop work place HIV/AIDS policy that facilitates HIV/AIDS mainstreaming.

#### **CHAPTER1.: INTRODUCTION**

#### 1.1. Background

More than twenty years of HIV/AIDS pandemic, there is now ample evidence for the complex linkage between HIV/AIDS and agricultural development. HIV/AIDS knowledge gaps increase the people's susceptibility to HIV transmission and their vulnerability to AIDS. Inversely, the epidemic itself hampers or even reverses development progress posing major obstacles to the achievement of the Millennium Development Goals (UNAIDS, 2003: [1])

The adverse effect of HIV/AIDS on agriculture development activities can be more devastating and challenging in countries that seriously hit by the epidemic. In connection to this, the United Nation General Assembly round table 3 on HIV/AIDS stated that:

"HIV/AIDS is having a disastrous impact on economic and social development of countries highly infected by the epidemic eroding the ability of governments to provide and maintain essential services, reducing labour supply and productivity and putting a break on economic growth" (UNGASS, 2001, cited in UNAIDS, 2003:1).

The growing understanding of this two way relationship between HIV/AIDS and the agricultural development and the challenge posed by the epidemic has led to the insight that in addition to agricultural development programs that specifically address HIV/AIDS there is a need to strengthen the way in which the existing agricultural extension service programs deals both the cause and effect of the epidemic in each countries specific settings (UNAIDS, 2003:1).

Since then, in many countries, efforts have been made by governments as well as non-governmental organisation to increase HIV/AIDS knowledge and mainstream it in different sectors at different levels (federal to district). In the last twenty years, the Ethiopian Government has also tried to address some of the challenges posed by HIV/AIDS through instituting HIV/AIDS policies, strategies and programs. The strategic plan for intensifying multi-sectoral HIV/AIDS response (2004-2008) has been formulated. In the strategic framework, the multi-sectoral response to epidemic by developing specific plans based on its role/mandate in the society and its capacity. Each sector is expected to effectively mainstream HIV/AIDS in the sectoral policy (Drimie, et al, 2006:47).

However, as far as the research is concerned, no empirical studies have been conducted in Ethiopia in general and in SNNPR in particular to disclose the HIV/AIDS knowledge gap of agricultural extension workers and how to mainstream HIV/AIDS into their agricultural development activities.

Thus, in an attempt to fill the research gap observed related to the level of HIV/AIDS knowledge of extension workers and the status of the agricultural sector in mainstreaming HIV/AIDS in to their development process this study aimed at assessing HIV/AIDS knowledge of agricultural extension workers and make recommendation about HIV/AIDS issues in the agricultural sector and its implication for the work of extension is crucial to the further spread of HIV infection in the rural community and decrease organisation vulnerability to AIDS.

#### 1.2. Problem Statement

The huge magnitude of HIV/AIDS has left no sector untouched. The epidemic has become not only a health issue but also a development issue that has an impact on every aspect of life. In other words, no policy sector is immune to or unaffected by the impact of HIV/AIDS (Common Wealth Secretariat, 2002:51). Vulnerability and susceptibility of the epidemic varies from sector to sector. According to the cross-impact analysis of HAPCO and UNDP(2003:52), the health and education sectors are most vulnerable and strategic of all sectors. Being central to the economy of many African countries including Ethiopia for more than 80% of the people whose livelihood are based on farming, the impact of HIV/AIDS on the agricultural sector is even more severe(Drimie et al., 2006:9).

Despite the fact that rural prevalence rates are lower than urban rates, the scale of the epidemic requires an urgent response because the problem gets more severe rapidly in the rural area where majority of the people are dependent on the agriculture and the media distance and awareness is relatively low.

The impact of the disease can undermine development initiatives, diverting attention from productive activities to caring for the sick and surviving the aftermath of the death of key household members. Indeed the disease affects the organisation; changes the composition of rural communities and the priorities of farming households, thereby making many of the agricultural production-oriented extension messages irrelevant. However the extension workers are not involved in HIV/AIDS activities because it does not fall under their job description and the ability of extension workers to effectively support the intervention has remained a source of concern. The concern is occasioned by lack of appropriate HIV/AIDS knowledge by extension workers and its impact on agricultural extension service hence this requires the understanding of the existing knowledge and challenge of HIV/AIDS faced on the agricultural to incorporate in the sector.

## 1.3. Significance of the study

In country, which has been suffering from scarcity of agriculture extension manpower for the rural development sector, it is extremely difficult to quantify the crisis resulting from losing its skilled people because of HIV/AIDS. Extension officers are the potential source of agricultural development of the nation, protecting them from the threat of the pandemic is a crucial step and a significant contribution to the development of the nation. In order to devise appropriate preventive strategies, it is a non debatable fact to clearly and systematically understand the risk situation of this critical group from the context of rural development.

#### 1.4. Research objectives

The overall major objective is:

To assess the knowledge of HIV/AIDS among agricultural extension workers and explore the challenges in mainstreaming HIV/AIDS in the agricultural sector specific activities.

#### 1.5. Research Questions

Research question # 1

What knowledge do the agricultural extension workers have about HIV&AIDS?

#### Sub-questions

- 1.1. What is the state of knowledge of Awassa zuria agricultural extension agents about HIV/AIDS and its cause, transmission, its prevention and control methods?
- 1.2. How do the agricultural extension workers get the knowledge about HIV and AIDS?

Research question # 2

What are the challenges facing agricultural extension workers and senior management in mainstreaming HIV/AIDS work in the agricultural extension sector?

- 2.1 Why HIV/AIDS issues are not incorporated in agricultural extension service?
- 2.2. What could be modified in the organisational agricultural extension strategy to face the challenge of HIV/AIDS?

#### **CHAPTER 2. : LITERATURE REVIEW**

In this chapter, attempts were made to briefly describe some of the contemporary wittings of mainstreaming, particularly on issues related to rationale, concepts, knowledge and challenges of mainstreaming in the agricultural sector. Since the concept of mainstreaming has appeared recently in the HIV/AIDS and lack of adequate empirical studies pertaining in the topic, effort is made to review the most relevant literatures.

#### 2.1. HIV/AIDS and the global perspectives

It is estimated that 40 million people in the world are living with HIV/AIDS, over 70%(28.5 million people) live in sub-Saharan Africa with 3.5 million new cases estimated in 2000 alone (Carael and Holmes, 2001).In most of the countries, the pandemic of HIV and AIDS has had a selective impact on young men and women who constitute their main stay on agriculture, education, commerce, industry and health.

## 2.2. Status of HIV/AIDS in Ethiopia

Ethiopia, with a population of 67 million people, is the second most populous country in Sub-Saharan Africa. The country, with per capita income of about US\$ 100 per annum, is among the poorest in the world and is ranked 169<sup>th</sup> out of 175 countries listed in UNDP's Human Development Report (2003). Of the total population, over 80% live below the income poverty line of US\$1 per day and 60% are illiterate.

The economy is primarily based on agriculture, where small scale farmers occupy 96% of the cultivable land. The sector accounts for half of GDP, 85% of exports, 80% of total employment, and is an important source of inputs for the manufacturing sector (CIA, 2003). However, it is plagued by periodic drought, soil degradation caused by overgrazing, deforestation, high population density, and poor infrastructure. Over the centuries, the country has experienced repeated emergencies related to food insecurity (Pankhurst, 1985).

The drought and relief situation is being aggravated by the spread of HIV/AIDS pandemic. Since the first case was noted in 1984, the prevalence rate rose rapidly during 1990s, from 3.2% of the adult population in 1993 to 6.6% in 2001(MOH, 2002). By the end 2002, it was estimated that 1.7 million people in Ethiopia had already died from the disease and further 3 million were living with the disease (UNAIDS, nd). The number of additional people affected by the disease may be high 10-12 million, including 1 million orphans. It is estimated that 5000 people infected with the virus every week and that one out of every 11 people living with HIV/AIDS in the world today is an Ethiopian. The disease is taking its toll on life expectancy and ,over the next 10 years, it will be reduced by nine years (from 59 years in the absence of AIDS to 50 years with AIDS)(MOH,2002). Underlying factors promoting the spread of the disease include poverty, lack of knowledge, gender inequality, cultural barriers, war and displacement and demonization of troops (Walta information center, 2002, NIC, 2002).

Ethiopia is classified(along with Nigeria, China, India and Russia) as belonging to the next wave countries' with large population at risk from HIV infection which will eclipse the current focal point of the epidemic in central and southern Africa (NIC,2002). It is estimated that 7 to 10 million Ethiopian will be infected by 2010 because of the high current rate of adult prevalence, wide spread poverty, gender inequality and the government's limited capacity to respond(due to limited human, financial, technical and material capacities (Gabrus, 2003).

The Government of Ethiopia is addressing the epidemic .HIV/AIDS Prevention and Control Office(HAPCO) have been established at national, regional, tonal and woreda level focusing on reducing transmission and associated morbidity and mortality and its impacts on individual, families and society at large.

#### 2.3. The Epidemic in Rural Ethiopia

Little work has been done on the nature of the disease in rural areas despite the fact that 85% of the population lives in rural areas and that the agricultural sector plays a central role in the Ethiopian economy. This essential gap in information noted by (MOH, 2002), Behavioural Surveillance Survey, 2002, and Gabbros, 2003), arises because there have been very few sentinel survey sites in rural areas.

Until recently the rural sector was overlooked by institutional response. Although there are over 175 NGOs conducted HIV/AIDS related programmes in Ethiopia ,very few directly address the needs of the agricultural sector and small holder producers (Tesfaye et al,2002).

The Ministry of Agriculture (MOA) established an anti-HIV/AIDS task force in 2000 and it has been developed a project for combating the HIV/AIDS epidemic. Most of the activities to date have been focused on information, education and communication (IEC) and behavioural change communication (BCC). Future activities will include voluntary counselling and testing for MOA staffs, capacity building through curriculum development at the agricultural colleges and impact assessment studies of HIV/AIDS in the agricultural sector.

The Demographic and Health survey (DHS) of 2000(Central Statistics Authority, 2000) found rural residents had more stigmatising attitude and less knowledge about the disease than urban residents.

#### 2.4. Knowledge of agricultural extension workers on HIV/AIDS

"Knowledge is the capacity to acquire, retain and use information" (Badran, 1995). These are the facts, information, skills and understanding that have been gained through learning and experience. As the pandemic is now in the third decade since it was identified, and it is showing no sign of relenting (Mbanya, Zebaze, Kenghe, Minkoulou, Awah and Beure, 2001). It is important for the agricultural extension workers to be equipped with the current facts and information on HIV/AIDS knowledge on the resource available. The knowledge and use of universal precaution by extension agents when caring for all clients is imperative the prevention of the spread of HIV/AIDS (Shearer & Davidhizar, 1999).

In SNNPR, Ethiopia males had 1.5 times more knowledge than females and most of them had heard about HIV or the disease AIDS and they knew somebody who was infected with the virus or who had died of AIDS.

When the composite indicators of knowledge of the three preventive methods and absence of incorrect belief about HIV/AIDS transmission were merged to form a comprehensive indicator of knowledge, comprehensive knowledge was found among age group of 15-45. A higher proportion of males had comprehensive knowledge than females on prevention and misconception than females.(DHS, 2000).

## 2.5. Challenge of HIV/AIDS on agriculture extension

"In sub-Saharan Africa, the agricultural sector is the predominant means of livelihood for rural households. Whereas the growth in the agricultural sector contribution to the national economies is threatened by high production costs arising from the high prices of inputs, especially energy and fertilizer, it is also now evident that HIVAIDS has worsened the situation in the agricultural extension sector through increased loss of agricultural extension skilled manpower. HIV/AIDS also raises costs, reduces productivity of individual workers and alters the organization's operating environment through; increased employee absenteeism due to ill health, workers falling productivity due to physical or emotional health, loss of knowledge and skill due to death or medical retirement". (Barnett and Whiteside, 2006 and Qamar, 2003).

Mather, Donovan, Jayne, and Weber (2004) and Rugalema et al. (1999) indicate that "adult AIDS deaths have a significant impact on both crop income and value of the household assets. This scenario could be worsened by high mortality rates for agricultural research and extension workers who in fact should bridge up this gap of agricultural information and skills transfer to farmers. They further point out that absenteeism and mortality of agricultural staff pose a serious threat and are growing problems to improved food security for agricultural households in AIDS-affected areas. AIDS is further leading to a loss in indigenous knowledge, reduction in agro-biodiversity and degradation of research-extension services by increased workload among remaining staff". The situation in Ethiopian agricultural sector, loss due to prolonged illness among the staff leads to reduction in profitability emanating from escalation of operation expenses due to increased medical and funeral costs, reduced productivity due to extension workers absenteeism.

The epidemic is also changing the traditional composition of the clientele for extension service. In areas of high HIV prevalence, the category of healthy and able bodied men, women and youth, in the late adolescence to middle age range, is the one that has most affected by high level of morbidity and mortality. One finds more women, children and elderly persons now engaged in farming due to prolonged illness and/or death of their spouses, parents, guardians and other members of the family. Paradoxically, the struggle of feeding a large number of children left behind their parents who have died young, has forced many old persons back in to farming who have retired from active farming long ago. The emerging target population for extension services increasingly includes more physically weak, sick and elderly persons, widows and young orphans. These new comers, who even though they are exposed to farming due to living in rural areas, have relatively less experience in agronomic practices as compared to their elders, and have limited physical and technical capacities for the use of heavy tools, farm machinery and animal drought power equipment. Change of this magnitude in the type and character of the clientele is bound to render the existing extension strategies and methods outdated unless they are adjusted in line with the new extension clientele and their needs. The public extension organisations, however, are not yet prepared to cope with the situation. (Qamar, 2003).

## 2.6. The concept and definition of HIV/AIDS mainstreaming

The concept of 'mainstreaming' appears to have originated in the late 1960's to 1970's within the education sector to describe classrooms where all boys and girls receive the same education regardless of disabilities (UNAIDS, 2002 cited in HAPCO&UNDP, 2005:16).

The term is now widely used across a range of different sectors and contexts. The adoption of a mainstreaming approach by advocating gender equity across all sectors seems to emerge before its application by HIV/AIDS activities and policy makers (Elsay et al.2005:990).

The concept of mainstreaming has appeared relatively recently in the field of HIV/AIDS policy. While initial responses to the epidemic were dominated by a biomedical approach led by health sector, increasing recognition of the social and economic impacts of the pandemic led to calls for a multi-sectoral response and HIV/AIDS mainstreaming (Collins and Rau, 2000;UNDP,2000 in Elsey et al,2005:995).In a number of countries AIDS commissions have been established with remit to work across sectors. However, the term is often used interchangeably with integration or a multi-sectoral response(Holden,2003 In NHAPCO and UNDP,2005:18 and Elsey et al.,2005:991).For the sake of clarity and to identify the definition that best suit to this study, it is logical to review some different definition and ideas surrounding mainstreaming.

According to Elsey,H. and Kutengule,P.,2003:12),HIV/AIDS mainstreaming can be defined as "The process of analyzing how HIV/AIDS impacts on all sectors now and in the future, both internally and externally, to determine how each sector should respond based on its comparative advantage".

The specific organisational response, as the authors further suggests, includes;

- -Putting in place policies and practices that protect staffs from vulnerability to infection and support staffs who are living with HIV/AIDS and its impacts, whilst also ensuring that training and recruitments takes into consideration future staff depletion rates, and future planning takes into consideration the disruption caused by increased morbidity and mortality;
- -Refocusing the work of the organisation to ensure those infected and affected by the pandemic are included and able to benefit from their activities.

As can be conceptualized from the above definition, by dividing out the different components of mainstreaming, it aims to go beyond a definition to look at the processes involved in mainstreaming. Thus, a critical element of mainstreaming HIV/AIDS is re-conceptualizing the core work of development sectors to pursue strategies aiming to reduce the vulnerability to, and impact of HIV/AIDS respectively.

As UNAIDS proposes, mainstreaming HIV/AIDSIS defined as "a process that enables development sectors to address the causes and effects of AIDS in an effective sustained manner, both through their usual work and within their work place (UNAIDS,2003:4)." The UNAIDS strategic note and action framework elaborate that the working definition distinguishes two domain for mainstreaming HIV/AIDS. These are the external domains which deal with the organizational mandate and usual work, including the people it serves and the internal domain which concerns the organizational workplace, including its resources, mainly the employees and its internal procedures.

According to OXFAM (2003, cited in HAPCO and UNDP, 200:19), the term is defined as "Mainstreaming" is about change; it starts at individual level where it must be internalized by the people in the institution. The process of change is from vertical to horizontal process from a lack of action towards a push, demand and request for support, integration based on increased ownership. It is about a growing organisational consciousness and culture integrating HIV/AIDS. The three definitions given above are not mutually exclusive, rather

they reinforce each other. Indeed, definition suggested by UNAIDS and Elsey, H and Kutangule, P connote nearly similar concepts.

They address the internal and external dimension of mainstreaming. However definition proposed by Oxfam considers mainstreaming as a change and assume mainstreaming as a means to achieve integration of HIV/AIDS.

From my own point of view, the definition suggested by UNAIDS and Elsey, H and Kutangule, P. have been applied. This is because the definitions vividly show areas of mainstreaming activities to be carried out by development sectors. By doing so the definition can facilitate the research process by informing the main activities HIV/AIDS mainstreaming in the agricultural sector.

#### 2.7. The rationale for mainstreaming HIV/AIDS in agriculture sector in Ethiopia

Ministry of agriculture in Ethiopia was founded with a mandate to raise the level of nutrition and standard of living: to improve agricultural productivity and to better the condition of rural population. Its role focuses on providing technical assistance in the field of food security, agriculture and rural development.

The impact of HIV/AIDS on agriculture and food security was neglected for many years. Originally the epidemic was perceived as a health issue and the potential role of the agriculture sector to assist in the prevention and mitigation of its impact was not recognized.

As the impact of the disease continue undermining development initiatives, diverting attention from productive activities to caring for the sick and surviving the aftermath of death. The death of key adult household members is usually accompanied by a loss of labour, skills, knowledge and assets. Indeed, if left unchecked, the disease changes the composition of rural communities and the priorities of farming households. In heavily AIDS-impacted areas in parts of eastern and southern Africa, many farmers are now principally concerned about basic food security and the survival of their families, thereby making many of the traditional production-oriented extension messages irrelevant.

A gender inequality is one of the driving forces for the spread of HIV. Biological and social factors make women vulnerable to HIV especially to youth and adolescence. Access to productive resources including land, credit, training and technology is strongly determined by gender lines, with men frequently having more access to all of these than women. With the death of her husband, a wife may be left out without the access she had gained through him or his clan, and her livelihood and that of her children is immediately threatened. AIDS is thus worsening existing gender imbalance.

In addition, HIV/AIDS creates a significant institution capacity gaps, particularly in national agriculture and service organisation and research organisation. In its consequences HIV/AIDS has a profound effect on hunger and poverty reduction strategies.

Given the above, it is clear that HIV/AIDS has a direct bearing on ministry of agricultural mandate in order to adequately respond to the multiple challenges brought by the epidemic.

## **CHAPTER 3.: RESEARCH METHODOLOGY**

In revealing the implementation of mainstreaming activities, interview method as a strategy was employed. It was based on examining the extent to which HIV/AIDS knowledge of agricultural extension agents and mainstreaming HIV/AIDS in the sector is effective. This was realized through collection of quantitative and qualitative data obtained from extension agents, Focus Group Discussion and document review. The detail was here below

## 3.1.Study area and sampling technique

This study was conducted in Awassa Zuria district which is found in Sidama Zone of Southern Nation Nationalities People Regional State(SNNPR) in July and August 2009. Awassa Zuria district covers an area of 91,000ha and has an estimated population of 105,000, out of these women constitute 51% (CSA,2007).

The district has 20 kebeles (the lowest administrative unit in Ethiopia). Two kebeles Qocho and Guguma were selected on the basis of the following criteria:

#### 1) Geographical location

2) High and low prevalence rate and AIDS cases. According to SNNPR Health Bureau surveillance report Qocho (9.2%) ranks among the highly prevalent district and Guguma (2.1%) among the district of low prevalence rate.

The two kebeles are very similar except concerning agro-ecology and gender but differ in geographical location and HIV prevalence rate. So the two have been applied while the others remain constant.

These categories were developed on the basis of the sub-Saharan HIV prevalence rate as the reference point and availability of extension workers who were targeted as informants for this study. (UNAIDS/WHO, 2008).

The Kebeles (village) where their agricultural productivity is severely affected due to the epidemic were selected each representing close and distance proximity from regional town Awassa. (Tesfaye at al, 2002). In these kebeles the total number of number of agricultural extension workers is 220. Out of these 15 agricultural extension workers 10 male and 5 females are selected in each kebele. A characteristic of the study area is described in table 1.

Table 1. Characteristics of study area

Name of Kebele	HIV Prevalence	Number of agricultural extension workers	Male to female ratio	Distance of kebeles from Awassa(KM
Qoche	9.2	15	3:1	14(close)
Guguma	2.1	15	3:1	150(distance)

From the above date the prevalence of HIV considerably varies in Qocho and Guguma areas. Infection rates are higher in the urban centres where more than 9% of the entire population is believed to be infected with HIV.

#### 3.2. Data collection

Data were collected from both primary and secondary sources. Primary source of data were collected through Focus Group Discussion (FDG) and structured questionnaires.FGD were conducted in two Qocho and Guguma villages. For the two villages the selected involved in FGD were District head of agricultural and rural development, District head of Health Bureau, Extension officers, Elder farmers, women and Religious leaders.

Both focus group discussion and structured questionnaire are attached in the appendix 2 and 3.

Secondary data were collected prior to primary data, as a starting point for the study and these includes publications, books and current relevant documents of HIV/AIDS.

#### 3.3. Data analysis

The data and information collected from primary source (from sample respondents through questionnaires and FGDs) and secondary sources (review documents of bureau strategic plan and programs) were analyzed using simple descriptive statistics such as frequency and percentages. The qualitative aspects of the study were summarized as descriptive.

#### 3.4. Limitation of the study

Unavailability of related literatures and study has made the substantiation and comparison of the findings difficult.

## **CHAPTER 4.: RESULT AND DISCUSSION**

This chapter of the study is concerned with the presentation of major findings of the research and the discussion subsequently made on the findings. The section comprises of the main findings obtained from the research area which were examined to meet the objectives and address the basic question of the research.

The result of discussion were mainly based on responses of the sample staff from the agricultural sector, FGD and document review.

#### 4.1. Focus group discussion

This section presents the results of discussion with focus groups on knowledge of HIV/AIDS and the challenge to incorporate HIV/AIDS issues in the sector.

#### 4.1.1. KNOWLEDGE

Knowledge on HIV/AIDS transmission was reported by the participants mainly in terms of transmission and prevention. The main route through which HIV/AIDS was said to be transmitted was sexual intercourse with infected person, sharing of sharp instruments with those infected ones, being transfused with blood from infected ones or getting in to contact with infected blood and from mother to child transmission.

HIV/AIDS prevention methods commonly mentioned in the focus group discussion in both districts were condom use, being faithful to sexual partner, abstaining sex for those who are young, on-sharing of sharp instruments and avoiding inheritance of widow.

They revealed that even when agricultural extension agents know the basic facts about the diseases, they understood very little about the dynamics of HIV/AIDS. Knowledge on the mode of transmission and prevention exist largely on the theoretical level. Extension agents can explain very well how the disease is transmitted but they do not understand how it may actually happen to them. As a result their knowledge is simply too academic rather than practical and does not relate to the individual life experience. And even when female extension workers did have the basic facts about HIV/AIDS they were not confident with what they know and did not feel empowered by this knowledge, the reason for this HIV messages have been health oriented and have not been integrated in social context.

Men are more mobile and have more access to information and have more leisure time to socialize and exchange ideas.HIV and AIDS are discussed in the bars and entertainment places and the information that men have gained knowledge related to HIV and AIDS issues had not shared the knowledge with their wives.

#### 4.1.2. CHALLENGE

The challenge currently posed by the HIV/AIDS epidemic to agricultural extension organizations, is quite unusual as it affects both staff and clientele and involves human emotions to a depressing degree, that is, in addition to technical aspects. This challenge has at least three major dimensions. First, the very nature of the extension work; second, the impact of the epidemic on the extension organization itself and its staff; and third, the impact of HIV/AIDS on the clientele of extension services. (Qumar, 2003).

In focus group discussion heads of the organisation and extension workers revealed that the challenge posed by HIV/AIDS is:

- Inadequate delivering extension services caused by deaths, protracted sickness and frequent absences of staff.
- increased organisation cost
- unable to afford for farm inputs
- poverty and food insecurity

The group were asked to mention how the challenge of HIV/AIDS impacts their work in day to day activities. Different answers were given in the discussion.

Elder farmers reported that the district office agricultural extension agents have to be equipped with essential knowledge on HIV/AIDS so that they can teach the clients and reduce the spread of the disease. A respondent from Qocho village reported that only few extension agents he had talked to were actually dealing with HIV/AIDS.

Head of the district agricultural office and extension agents revealed that the organization by itself is not prepared to confront the challenge posed by the pandemic.

Almost all they revealed inadequate extension delivery due to frequent absence from work was the major one followed by increased organizational cost and unable to afford farm inputs.

#### 4.2. Characteristics of the agricultural extension agents

A total of 30 agricultural extension agents from two urban and rural villages were studied; extension agents from both locality i.e. from Qocho (n=15) and Guguma (n=15) were selected each having 10 male and 5 female respondents.

#### Age

Amongst the 30 respondents interviewed 66.7% were male and 33.35 were female. The age distribution of agricultural extension workers showed that 13.3% were aged 20-26 years, 20% were aged 27-44% and 7% were greater than 44%.

Table 2. Gender and age distribution of extension agents

Age group	Gender percentage		Total percentage	
	Male	Female	Male	Female
20-26	8	4	26.4	13.3
27-44	10	6	33.3	20
>44	2	-	7	-
Total	20	10	66.7	33.3

#### **Education**

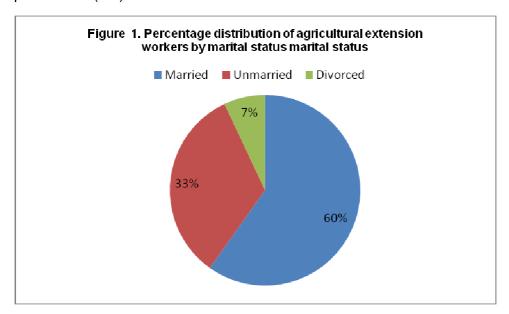
The distribution of respondents by educational status majority of them (50%) was at certificate level, (33.3%) was at diploma level and (16.7%) had degree respectively. The respondents had been drown from different educational background; this could help the study to obtain information from staffs with diversified academic status.

Table 3. Education level of agricultural extension workers

Education level	Frequency	Percentage
Certificate	15	50
Diploma	10	33.3
Degree	5	16.7
Total	30	100

#### **Marital status**

About (60%) of the respondents of agricultural extension workers were currently married and living with their spouse and bout (33 %) of were unmarried and not living with a sexual partner and (7%) were divorced.



## Religion

About 80% of extension agents were Protestant, 20% Orthodox Christian and about 10% of extension agents were reported traditional believers. As I was informed by extension agents religion has a key role in HIV/AIDS prevention.

#### 4.3. Knowledge of agriculture extension workers towards various HIV/AIDS issues

#### 4.3.1. Knowledge on concept of HIV/AIDS among agriculture extension workers

Knowledge on the identification of differences between HIV and AIDS was explored among extension workers. More than 90% of the respondent from urban and 80% from rural knew HIV was different from AIDS. This result of the respondents who knew HIV was different from AIDS is supported by Ethiopia Demographic and Health Survey (CSA, 2001); which is high level of awareness is high (90% and 60% for urban and rural, respectively). About 10% from urban and 20 % from rural don't know<sub>1</sub> HIV is different from AIDS.

Extension agents who are female who are working in rural areas were less likely to the pathogenesis of HIV to AIDS. This finding supports reports from earlier studies of strategic plan. (NNPWE, 2007).

#### 4.3.2. Knowledge about HIV/AIDS causes

The study was attempted to disclose the Knowledge about HIV/AIDS causes of the agricultural extension workers in the sector.

The understanding of the concept of HIV/AIDS including the relationship between human immunodeficiency virus (HIV) and the virus responsible for causing AIDS was explored by agricultural extension workers. More than 90% of the respondents working in the urban areas and 75% of the respondent working in the rural areas knew HIV is different from AIDS and the virus destroy the immunity. About 10% of the urban and 25% of the rural people were said AIDS is the result of curse of God. This result of the respondent is supported by the study (James Zou et [al], 2009), "Religious beliefs about HIV can also contribute to fatalistic attitudes and passive resignation, which hinders participation in treatment. In one study from rural Mali, people who believed that AIDS was a punishment from God had more fatalistic attitudes (e.g. agreeing to the statement "I believe that if a person has HIV/AIDS most treatments will not change anything") than those who did not".

#### 4.3.3. Knowledge of HIV/AIDS transmission

The knowledge of HIV/AIDS transmission route was also assessed and agricultural extension agents were able to spontaneously mention multiple route of transmission. The agricultural extension workers knew unprotected sexual intercourse (90%) male and (80%) female of urban and 80% and 60% of the rural ones , sharing of sharp objects including toothbrush (70%) male and (40%) female of urban and 60% and 40% of the rural village and receiving transfusion of infected blood (40 %) for male and ( 20%) for females of the urban and 30% and 20% of the rural as the major route of transmission of HIV/AIDS. More over few extension workers said HIV can be transmitted from an infected mother to her child during pregnancy through trans-placental route(20%)of male and (80%) of female only in urban and 30% of male and 80% of female in rural. In both villages almost all the female respondents and a few male were able to mention the three mothers to child transmission (i.e. during pregnancy, labour and delivery and breast feeding). This result of the respondents who knew HIV was different from AIDS is supported by Ethiopia Demographic and Health Survey (CSA, 2002).

Table 4. Percentage distribution of extension agents on route of transmission

Route of transmission	Qocho(urban)		Guguma(rural)	
	Male%	Female%	Male%	Female%
Unprotected sexual intercourse	90	80	80	60
Sharing of sharp objects	70	40	60	40
Blood transfusion	40	20	30	20

## 4.3.4. Misconceptions about transmission

Agricultural extension workers views on the possibility of HIV transmission through casual contact were assessed. Only small proportion of extension agents said that HIV can be transmitted through eating and mosquito bite.

The common misconceptions amongst the Qocho and Guguma agricultural extension agents were that HIV could be contracted by eating raw meat prepared by a person infected with HIV (50% and 60% respectively) and by mosquito bites 30% and 40% respectively. These misconceptions lowered the comprehensive knowledge level of agricultural extension agents.

#### 4.3.5. Knowledge of HIV/AIDS prevention

Agricultural extension workers were also asked their knowledge regarding prevention of HIV. HIV/AIDS prevention methods commonly mentioned in interviews and focus group discussion in both villages were Condom use, being faithful to sexual partners, Abstinence, and non-sharing of sharp instruments (knife). More than 90% of the respondent of Qocho village and 60% of Guguma were mentioned HIV can be Prevented. Most extension workers 80% of Qocho and 60% of Guguma were mentioned abstinence as a method of HIV/AIDS prevention. Faithful sexual relationship between non-infected partners 80% of Qocho and 60% of Guguma avoiding shared use of sharp objects were mentioned other methods of HIV/AIDS prevention. Around half 90% of Qocho and 80% of Guguma agricultural extension workers mentioned condom use as a means of HIV/AIDS of prevention.

In both study sites more than 80% of the male were able to name the two major preventive methods (abstinence, faithfulness, and use of condom) than female respondents. This shows most agricultural extension agents had a good knowledge on the major HIV/AIDS preventive methods

#### 4.4. Source of information for HIV/AIDS

Majority of the agricultural extension workers cited multiple source of information about HIV/AIDS issues. Their source of information on HIV/AIDS includes Electronic media; TV and Radio, Printed materials (newspapers and pamphlets), Health workers, Religious institutions and PLWHA.

Almost all discussants from Qocho village consider that TV programs were the most useful source of information because the information sometimes accompany experiences of PLWHA on the other hand discussant from Guguma revealed Radio is the main source of information on HIV/AIDS accessible by many people as a result of full coverage of the Ethiopia.

Printed materials like magazine, news paper, poster and brochures were also mentioned as a source of information however access to these printed materials in Guguma (rural) was found to be limited due to circulation.

Although information was reported to increase knowledge of agricultural extension workers on HIV/AIDS, the most important sources such as TV, magazine and news papers were not widely accessible by most agricultural extension agents especially those who work in Guguma rural areas

#### 4.5. Availability of documents and literature in the office related to HIV/AIDS

Concerning the availability of important materials related to HIV/AIDS for employees in the work place will give them an opportunity to search for relevant information on HIV/AIDS but the outcome of this study revealed that majority of the respondents in both villages reported except some reports there was no documents and literature related to HIV/AIDS in the office.

## 4.6. Implication of HIV/AIDS in development

Almost (70%) of Qocho and (50%) of Guguma respondents were said HIV/AIDS is both a health and a development issue, and 30% of Qocho and 50% of Guguma respondents were said HIV/AIDS is a health issue since most of HIV/AIDS activities like awareness creation, condom promotion and VCT were done under the mandate of health bureau. Furthermore the agricultural extension workers responded that since majority of the people are dependent on the agriculture and the media distance and awareness is relatively low it is a convenient place to address HIV/AIDS related issues.

#### 4.7. HIV mainstreaming in the agriculture sector

Being 80% of the population are dependent on agriculture successful implementation of HIV/AIDS mainstreaming requires the agricultural sector departments to establish a shared understanding to develop complete knowledge of what HIV/AIDS mainstreaming means to the sector and why they are trying to achieve through mainstreaming. To identify the status of each department in the agricultural sector in this regard, the study attempted to elicit HIV/AIDS mainstreaming in the agricultural sector.

Majority of the respondents (80%) of Qocho and (60% of Guguma) village agricultural extension agents revealed that they are concerned and HIV/AID has to be incorporate in the agricultural sector by citing the impact of AIDS on agriculture.

#### 4.8. Effect of HIV/AIDS within the agriculture sector

Agricultural extension workers stated that to what extent HIV/AIDS can affect their routine extension work in relation to costs, reduces productivity of individual workers and alters the organization's operating environment. About (50%) of Qocho and (40%) of Guguma respondents mentioned HIV/AIDS disrupts extension service operation by severing key linkages in the service delivery chain between the sector and their clients due to increased employee absenteeism caused by (ill health and attending burials), death of extension workers and Increase organizational cost. About (30%) of Qocho and (20%) of Guguma respondent were explained that productivity of agriculture was decreasing from year to year and about 10% of Qocho and 30% of Guguma agricultural extension workers mentioned their morals were decreasing from time to time and about 10% of Qocho and 10% of Guguma were revealed it had no impact on the sector.

## 4.9. Challenges of HIV/AIDS mainstreaming in the sector

This part of the discussion deals with the challenges of mainstreaming HIV/AIDS in to the strategies, programmes and plans of the agricultural development sector.

Almost half of respondents (50%) of Qocho and (40%) of Guguma village extension workers ranked lack of adequate knowledge and a clear concept on HIV/AIDS mainstreaming has been the major challenge that hampered the agricultural sector to mainstream HIV/AIDS activities. In addition, (20%) of Qocho and (20%) of Guguma respondents were reported weak leaderships and low level of commitment was the second bottle neck. About (10%) of Qocho and (20%) of Guguma respondents reported lack of adequate resources and (10%) of Qocho and (20%) of Guguma were reported poor monitoring and evaluation were the obstacles that hinder the efforts of the sector towards effective HIV/AIDS mainstreaming. As suggested by the respondents, lack of Lack of adequate knowledge of HIV/AIDS and Weak leadership are the major impeders of HIV/AIDS mainstreaming.

#### 4.10. Methods to face the challenges of HIV/AIDS in the agriculture sector

Few respondents (30%) of Qocho and (20%) of Guguma village extension agents revealed that HIV/AIDS issues needs to be included in the existing job description of our works in view of significant global changes that are shaping up the future role of extension agents and presenting meaningful options for institutional reforms in the agricultural extension systems. This will help extension staffs to mainstream HIV/AIDS in the context of agricultural production system. About 40% of respondent of Qocho and (30%) of Guguma were said for afflicted households have to be given 100% credit in agricultural packages since they are depleting their assets for medical and funeral. About 30% of Qocho and (5%) were informed that the extension strategy has to be revised and adjusted since many orphans without experience and elders are pushed to farming. In addition to this they said HIV/AIDS policy in relation to agricultural extension has to be designed so that this has an input in the reduction of the spread of the disease.

#### **CHAPTER 5.: CONCLUSION AND RECOMMENDATION**

In this chapter, on the basis of major findings of the research, conclusions are drawn and recommendations with suggested research outcomes are forwarded.

#### 5.1. Conclusion

This study was primarily aimed to assess HIV/AIDS knowledge of agricultural extension workers mainstreaming in the agricultural development sector in SNNPRS.

On the basis of the information collected from staffs and focus group discussion and document review this study has come up with the following conclusion.

## Knowledge

There was universal knowledge of HIV/AIDS in the agricultural extension agents.TV, newspaper and radio were mentioned as the main media through which HIV/AIDS related information was disseminated to raise awareness and increase knowledge of HIV/AIDS. But access to both TV and newsletters was still limited especially in Guguma areas, due to inaccessibility of TV channels and inability to deliver newsletters in the rural areas.

Even if the extension agents had good knowledge on HIV/AIDS, there were misconceptions particularly in Guguma about the cause and transmission of HIV/AIDS. Few agricultural extension agents associate with HIV/AIDS with punishment of God. There were others who believe that mosquito can transmit HIV and eating raw meat prepared by infected person. These misconceptions about HIV/AIDS have an impact on the existing knowledge of agricultural extension agents that shows gaps in fighting the disease.

The outcome of the research disclose that socio-economic and demographic characteristics of agricultural extension agents, perception and environment to action are the major component in increasing the knowledge and change the behaviour of agricultural extension agents e.g. area of working place has a great impact one's vulnerability and access to information on HIV/AIDS related activities.

The outcome of the research indicated that majority of agricultural extension agents knew the pathogenesis of HIV to AIDS. They are also knew the major route of transmission and prevention of HIV. The male agricultural extension workers were more likely to know conceptual knowledge of HIV/AIDS than their female counterpart.

## Challenge

It was concluded that there has been confusion, lack of clarity and a narrow understanding about the concepts of HIV/AIDS mainstreaming. It was found that concepts have not been understood well and knowledge of the term varied considerably even between urban and rural extension workers. These conceptual confusion and misunderstanding has hampered effective implementation of the sectoral responses to HIV/AIDS in the agricultural bureau. Without a clear concept of how HIV/AIDS might be mainstreamed in to the agricultural sector strategy and programs, it is unthinkable to implement effective HIV/AIDS mainstreaming.

The outcome of the research revealed that the leadership and high level commitment in SNNPR Awass zuria agriculture and rural development bureau has been inadequate, though it has been central to the success of HIV/AIDS mainstreaming. This lack of adequate attention and commitment of leadership has been seen throughout the indicators of HIV/AIDS mainstreaming.

Strategic plan, programs and annual plans have not adequately described in the sector to address the epidemic.HIV/AIDS mainstreaming has not been strategic priority of the sector and key HIV/AIDS activities have not been included in the job description and result oriented performance and frequent and continuous monitoring and evaluation and reporting systems has not been formalized.

The outcome of the research showed that it is becoming difficult to implement agricultural development activities as a result of HIV/AIDS. Agricultural extensions staffs are continuously absent due to illness and attending burials and this has an impact on the agriculture sector.

The finding of the study disclosed that many agricultural extension agents were concerned in incorporating HIV/AIDS in the agricultural sector and a few were not supporting to be incorporated in the sector since they were explaining that HIV/AIDS is a health issue and it has to be carried out by Ministry of Health.

The study outcome revealed that limitation in terms of personnel and resources remain a big challenge to mainstream HIV/AIDS in the agricultural development sector.

#### 5.2. Recommendations

In light of the findings obtained from interview respondents, FGD and document review, the research outcome conclude that even if the agricultural extension agents have universal knowledge on HIV/AIDS, their experience in mainstreaming HIV/AIDS into their core business remained ineffective. Thus, the study suggested the following major recommendation for improvements and effective HIV/AIDS mainstreaming in the agricultural sector.

- The outcome of the research revealed that the level of knowledge of agricultural extension workers on HIV/AIDS was high, but there are misconceptions that lower their level of knowledge on HIV/AIDS. So interventions are important to target these extension agents that have misconceptions working in Guguma village.
- Printed materials like magazine, news paper, poster and brochures were also mentioned as a source of information however access to these printed materials in Guguma (rural) was found to be limited due to circulation. It is recommended that interventions should be designed for Guguma extension worker so as they can get these resource materials to increase their knowledge on HIV/AIDS by creating AIDS resource centre in their office and training them on HIV/AIDS related issues.
- I have realized from interview and focus group discussion that designing AIDS resource centre in both villages is very important based on this my recommendation is the organisation has to think quickly in designing this resource centre.
- In my opinion from the interview and FGD with the view that the problem of HIV/AIDS in the district is not just a health issue but has fundamentally become a development issue, mainly because the disease exacerbates existing problems such as poverty, food insecurity, shortage of skilled manpower and strained and dysfunctional social and economic institutions. Based on this I will recommend that agricultural extension agents who have a misconception that HIV/AIDS related activities should be handled by health professional has to be trained so as to contribute to the problem.

- The outcome of the research showed that the district agricultural sector in Ethiopia lacks system to place the internal HIV/AIDS and this work place policy are seen very important based on this my recommendation is developing HIV/AIDS work place crucial.
- This study reveals that there has been lack of clarity and confusion about the meaning and practice of HIV/AIDS mainstreaming which hampers the effectiveness of the implementation of the work in the sector. Frequently, mainstreaming HIV/AIDS is interpreted as including HIV/AIDS component on the existing activities of the sector. Thus, it is essential that the sector and the staffs share a common understanding on what HIV/AIDS mainstreaming means to their sector and what they are trying to achieve through HIV/AIDS mainstreaming.

### Suggested research outcomes:

- develop sustainable awareness creation program
- identify knowledge gaps
- Identify key influential decision makers (managers, department heads and desk heads) and facilitation of HIV/AIDS mainstreaming workshop for them to make a change and strengthen the sector HIV/AIDS mainstreaming work.
- Fundamental change in HIV/AIDS mainstreaming is ensured through strong leadership and high-level commitment. With regard to this, the study reveals that one of the major challenges that impede the effectiveness of HIV/AIDS mainstreaming in the sector is inadequate upper level commitment and leadership. Therefore, it is imperative to strengthen upper-level commitment and participation of senior management (managers, department heads and desk heads) in the process of HIV/AIDS mainstreaming. To ensure this the following strategies are suggested.

#### Suggested research outcomes:

- design a strategic and annual plan in view of HIV/AIDS.
- consider HIV/AIDS as main issue in the sector (priority).
- include HIV/AIDS activities in the job description and result oriented performance evaluation of employee.
- Frequent and continuous monitoring and evaluation of HIV/AIDS mainstreaming activities is of paramount importance for effectiveness of the strategies. However it is observed that sectors, except health sector disregard the issue of HIV/AIDS mainstreaming while they monitor and evaluate their core activities, thus the sector should give equal, if not more attention to monitoring and evaluation of HIV/AIDS mainstreaming activities.

#### Suggested research outcomes:

- develop continuous monitoring and evaluation system
- set clear and measurable indicators that will allow effective monitoring and evaluation.
- include time frame, targets and goals in indicators.

#### References

- Barnett, T.and Whiteside. 2006. AIDS in the twenty-first century. Disease and Globalization. Second edition. Palgrave Macmillan. Chapter 10, pp 262. UK
- Barden, G.I. (1995:1). Knowledge, attitude and practice the three pillars of excellent and wisdom: a place in medical professionals.
- BoH.(2007). Annual Report of Regional Health Bureau. 2007 E.C. Hawassa
- Carael and Holmes(2001).HIV/AIDS and global perspective.
- Central Statistical Authority (2000) Ethiopia Demographic and Health Survey (http://www.measuredhs.com/hivdata/start.cfm)
- Central statistics and ORC marcor; Ethiopia demographical health survey DHS, 2005, Sept, 2006.
- Collins J and Rau B, 2000. AIDS in the Context of Development.
- Common Wealth Secretariat (2002). Impact of HIV/AIDS.
- Degu G Knowledge and practice of condom in preventing HIV/AIDS infection among the commercial sex workers in three small town north western Ethiopia. Ethiopia Health Development,2002,16(3) 277-286.
- Drimie, S. and others (2006). HIV/AIDS, Food and Nutrition Security. RENEWAL, IFPRI
- Elsey, Helen and others (2005). AIDS care: Mainstreaming HIV/AIDS in Development sectors. UK, Liverpool School of Tropical Medicine.
- Elsey, Helen and Kutengule, P. (2003). HIV/AIDS Mainstreaming: A Definition , some experiences and strategies.
- Food and Agriculture Organisation(2003).HIV/AIDS and Agriculture. Impact and Response: IP, Rome, Italy.
- Kurshchner, E. (2001). Status Report-HIV/AIDS-Interface; Lessons and Means in the context of Poverty Reduction Strategy Paper (PRSP). GTZ, Esshborn.
- HAPCO(2004).Ethiopian Strategic Plan for Intensifying Multi-Sectoral HIV/AIDS response.Addis Ababa,Ethiopia.
- HAPCO and MOH(2005).A Hand book for HIV/AIDS Mainstreaming. For scaled up Gender sensitive Multi-sectoral Response. Addis Ababa, Ethiopia.
- Holden,S., AIDS on the Agenda. Adapting Development and Humanitarian Programmes to meet the challenges of HIV/AIDS.
- Mather, D., Donovan, C., Jayne, T.S., Weber, M. 2004. Using empirical information in the era of HIV/AIDS to inform mitigation and rural development strategies: Selected results from African country studies. American Journal of Agricultural Economics 87(5):1289-97.

- Mbanya, D.N., Zebaze. R, Kengne, A.P., Minkoulou, E.M. Awah. P&Beure. (2001). Knowledge, attitude and practice in rural hospital
- Ministry of Health (2002) AIDS in Ethiopia, Fourth Edition, Addis Ababa: Disease Prevention and Control Department, MOH
- Ministry of Health (2004). AIDS in Ethiopia, 5<sup>th</sup> edition, Addis Ababa, Ethiopia.
- National Intelligence Council (2002) The Next Wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India and China, US: NIC (www.odci.gov/nic)
- Pankhurst R (1985) The History of Famine and Epidemics in Ethiopia Prior to the Twentieth Century, Addis Ababa: Relief and Rehabilitation Commission
- Qamar, M.K. 2003. Facing the challenge of an HIV/AIDS epidemic: agricultural extension services in sub-Saharan Africa. FAO. Rome.
- Rugalema, G.H.R. 1999. Adult mortality as entitlement failure: AIDS and the crisis of rural livelihoods in a Tanzanian village. PhD thesis. Institute of Social Studies. The Hague (September).
- Shearer.R and Davidhizar,R.E.(1999).What every health care professional should know about AIDS.
- Tesfaye N, Mamo G, Assegid Y and Bielman J (2002) HIV-AIDS and Agriculture in Ethiopia, A profile, Paper presented at Africa-Asia Agricultures against AIDS, December 2002, Bangkok, Ethiopia: MOA
- United Nation Special Session of the General Assembly on HIV/AIDS, Round Table 3(2001). Socio-economic impact of the epidemic and the strengthening of national capacities to combat HIV/AIDS.
- UNAIDS(2003).Support to Mainstreaming AIDS in Development; UNAIDS Secretariat Strategy Note and Action Framework 2004-2005.
- UNAIDS/WB/UNDP(2005).Mainstreaming HIV/AIDS in sectors and programs. An Implementation Guide to National Response.
- UNAIDS(no date) Ethiopia (www.unaids.org/EN/geographical+area/by+country/ethiopia.asp)
- Walta Information Centre (2003) *The HIV/AIDS Epidemic: What more does Ethiopia need to do and do more aggressively?* Addis Ababa: Walta Information Centre (www.waltainfo.com/

#### Web Site Source

UNDP (1999). Mainstreaming the Policy and Programs Response to HIV Epidemic. Issue paper No.33 available on http://www.undp.org.

#### **APPENDIX I**

Definitions of key terms

**AIDS:** (acquired immune deficiency syndrome) is the presence of a reliably diagnosed "opportunistic" disease and of an underlying defect in the cell mediated immunity in the absence of known causes of immune defect such as immunosuppressive therapy of malignancies(Onin,2002).

**Agricultural extension services:** transfer of agricultural knowledge, communication, learning activities and sharing of experiences with farming households.

**Agricultural extension workers**: personnel with professional training background in crop, livestock husbandry, entomology and fishery department.

**HIV:** (human immune- deficiency virus) is the virus that destroys the immune system and renders the person susceptible to infections.

**Knowledge**; is a clear awareness and a fact and situation (Hornby,1995). According to United Nation General Assembly Special Session for HIV/AIDS (UNGASS) knowledge include identification of ways of preventing sexual transmission of HIV and clarification of major misconception about HIV transmission(UNAIDS,2005b:29).In this study HIV/AIDS knowledge among agricultural extension workers include the knowledge of transmission and prevention of HIV, as well as the ability of extension workers correctly clarify misconception about HIV/AIDS.

**People living with HIV/AIDS(PLWHA):** are people who have been tested and confirmed to be living with HIV/AIDS. They are also people HIV antibodies in their blood.

**Risky sexual practice**; unprotected sexual intercourse (sex without condom) and sex with non-regular partner.

**Sexual practice**; refers to the manner in which humans experience and express their sexuality. It encompasses a wide range of activities, such as strategies to find or attract partners (mating and display behaviour), interactions between individuals, physical or emotional intimacy, and sexual contact.

## **APPENDIX II**

Questionnaire for assessment of HIV/AIDS Knowledge among agricultural extension agents					
Part-1 SOCIO-DEMOGRAPHIC SURVEY AND	Part-1 SOCIO-DEMOGRAPHIC SURVEY AND PERSONA CHARACTERISTICS				
Age :					
Sex :					
Location(Resident) :					
Religion :					
Position in the organisation: a) Management b	) Middle level manager c)Field staff				
How many years have you been working in you	ur organisationyears				
What is your roles in the organisation					
Administration	Tick(you can tick more than one)				
Administration					
Field coordinator/supervision					
Field workers					
Others					
1. Is HIV is different from AIDS? a) yes b) no c	) I don't know				
If yes what is HIV and					
What is AIDS					
2. In your opinion what is the cause of AII	OS?				
3 What would you say on the stage of HIV/AIDS					
4 How will people get infected with HIV?					
a) Through sexual intercourse					
b) Sharing infected needle, blade, toothbrus	sh and other sharp meta				
c) Infected blood transfusion					
d) Others					

5) How can HIV be transmitted from infected mother to the baby? a) During pregnancy b) Breast feeding c) Both d) I don't kno 6) How is HIV transmitted from the infected person? Kissing for greetings of PLWHA Shaking hands with PLWHA Penetrative sex Eating and drinking with PLWHA Sharing eating utensils with infected individuals 7) Can HIV transmitted through mosquito bite? a) Yes b) No c) I don't know 8) Can HIV transmitted from infected man who sell raw meat? a) Yes b) No c) I don't know 9) In your opinion what are the factors for transmission and increased vulnerability of HIV/AIDS? 10) Is HIV infection preventable?

- 11) Do you agree that avoiding having sex with high risk groups and using drugs especially chat helps in preventing HIV/AIDS?
  - a) Yes b) No c) I don't know

a) Yes b) No c) I don't know

If yes can you mention methods of prevention?

12) From where did you first hear about HIV&AIDS?
Electronic media; TV and Radio
Newspaper
Others
13) what is your source of information about HIV&AIDS in your locality?
Electronic media; TV and Radio
Printed materials(newspapers and pamphlets)
Health workers
Family members and friends
Others
14) Tell me about your institution information desk on availability of HIV/AIDS literatures and documents?
15)IS there anything that you would like to discuss on HIV/AIDS topic
16) Have you ever received information on HIV/AIDS from any training program in your organization?
a) yes b)no c) I don't know
Part 3 .Mainstreaming
1) Do you that HIV/AIDS is;
- A health issue
-A development issue
-I don't know
2) Have all staff members trained on HIV and gender?
-yes
-no
-I don't know
3) what knowledge and skill would you requires to address HIV/AIDS to the rural communities?
4) State how HIV/AIDS affect your organisation and your extension program

- 5) Does your organisation have HIV/AIDS work place policy?
- -yes
- -no
- -I don't know
- 6) If yes how are they implement it?
- 7) What are the challenges facing in implementing HIV/AIDS mainstreaming in your organisation?
- 8) What should be modified to face the challenges of HIV/AIDS in your organisation?

#### **APPENDIX III**

- 1. Does your organisation engaged in community consultation about HIV/AIDS and its impacts?
- 2. Does your organisation facilitate transfer of HIV/AIDS information to your staffs and clients?
- 3, In your opinion, do you think that extension workers are competent enough to mainstream HIV/AIDS in their works?
- 4. What are the main challenges facing agricultural extension workers in mainstreaming HIV/AIDS in the sector?
- 5 What could be modified in the organisational agricultural extension strategy to face the challenge of HIV/AIDS?
- 6. Does your sector have developed HIV/AIDS policy?
- 7. Does your organisation identified potential partner to support your mainstreaming efforts?
- 8. Are there any changes occurred in the farming community due to HIV/AIDS?

# Thank you