The Impact of Climate Change on Vulnerability to HIV/AIDS in Ethiopia

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Abstract

The study is based on primary data collected from four studies connected to climate change and vulnerability to HIV/AIDS and interviews with informants working on programs dealing with the consequences of climate change. The studies were conducted from 2004 to 2009. The findings show that climate change is one of the major causes for displacement, mobility, migration and as a consequence vulnerability to HIV/AIDS. Ethiopia is one of the countries frequently exposed to drought and shortage of food. In the event of HIV/AIDS, its efforts to prevent and control HIV/AIDS are very much undermined by climate change. Climate change caused displacement and camp life as well as resettlement of people to ensure food security. Harmful gender related practices are also making the prevention of HIV/AIDS difficult. The study is one of the multicounty studies on climate change and vulnerability to HIV/AIDS funded by UNAIDS, New York. It aims at reminding Ethiopia and other countries vulnerable to climate change to include HIV/AIDS in their National Adaptation and Program Action (NAPA). The study recommends that some of the good practices learnt from the Dire Dawa management of the flood victims of 2006 and key activities in HIV/AIDS prevention, care and support and treatment services should be included in NAPA.

Keywords: climate change, vulnerability, displacement, resettlement, cross generational sex

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Introduction

The HIV/AIDS and Climate Change Complex

Climate change has become a buzz word nowadays. Concerned scientists and individuals have been expressing their views on global warming and its consequence on climate change, while politicians (especially leaders of the industrialized north) continue to give it a deaf ear and at most a lip service to the problem.

Climate change has started threatening the survival of our planet and its inhabitants. The immediate consequences of climate change are displacement, spread of communicable diseases and ultimately loss of life of people and animals. The long term effects are chronic shortage of food, war and conflict induced by competition for meagre resources among neighbouring countries, communities and individuals and even global powers.

Ethiopia has been experiencing the consequences of climate change for over a century.[1] The situation has become worse with the massive industrialization of Europe, increasing the amount of carbon being emitted to the atmosphere every now and then. It is a fact of life that climate change has affected Ethiopia and sub-Saharan Africa in a number of social, economic and political ranges. Drought and famine are the major consequences of climate change. Populations are being forced to move in search of food, water, shelter and relief services. Population mobility, displacement and migration as the result of drought have been creating the necessary conditions for transactional sex, rape and abuse of women and children.

UNAIDS reports show that climate change induced emergencies such as displacement and shortage of food are interrelated with vulnerability to HIV/AIDS. Unfortunately, little attention has been given to these

relationships[2]. The Ethiopia National Adaptation Program Action (NAPA), which deals with the anticipated consequences of climate change, hardly mentions HIV/AIDS in its adaptation strategy, for example. According to UNEP (United Nations Emergency Program) and UNAIDS publication on climate change and HIV/AIDS (2008), "AIDS and climate change (CC) are two of the most important long wave global issues of the recent past, the present and the future. They share similarities, interactions, and present possibilities for a more united response. Yet these links have received little analysis."[3]

UNAIDS has identified key pathways that exacerbate the spread of HIV/AIDS in situations of climate change constituting the HIV/AIDS and Climate Change Complex (HACC).[4] They include:

(i) the deterioration of food security affecting individual nutrition and resistance to disease, as well as nutrition of community worsening governance (corruption and conflict);
(ii) the creation of favourable condition for other infectious diseases such as malaria which worsen the condition of people living with HIV/AIDS and also weaken resistance of others against HIV;
(iii) the destruction of infrastructure and service giving facilities (in some extreme case); this worsens the burden of diseases of aids; and
(iv) the displacement of people - the increase in mobility of additional migrants and refugees which aggravates gender inequalities, increasing the frequency of transactional and coercive sex.

The report adds populations with currently high rates of HIV are the most vulnerable to a worsening or prolongation of the epidemic due to climate change. This scenario places the people of sub-Saharan Africa including Ethiopia at the greatest risk of the HIV AIDS Climate Change Complex (HAAC)[5]. The HACC predicts:

(i) the maximum impact of CC is in the future, likely to occur decades after the peak incidence of HIV;
(ii) the severity of the HACC will largely be determined by the temporal overlap of the pathways enumerated above; and

(iii) the HACC will also have an uneven spatial distribution, modified by the regional impact of CC and the regional epidemiology of AIDS, each of which varies by physical and social elements.

Accordingly, populations with currently high rates of HIV are the most vulnerable to a worsening or prolongation of the epidemic due to CC. This places the people of SSA (sub-Saharan Africa) at the greatest risk of the HACC, though outside Africa populations in north east India and New Guinea may also be significantly impacted.

Ethiopia has been severely affected by climate change, experiencing mass starvation like that of the Wollo drought which killed hundreds of thousands of people and displaced millions in 1973[6]. This was one of the major causes of the mass uprising against the imperial regime. The 1979 and 1984 famines that happened under the military regime killed over a million people and wiped out huge number of livestock in the drought-affected regions of northern Ethiopia.[7] The situation forced the military government to initiate programs such as resettlement and villagization[8] which were unpopular and became contributory factors to the downfall of the regime in 1991.

Climate change continued to be a major threat to Ethiopia. Long periods of drought and erratic rainfall are the major causes. A significant section of the population is still exposed to shortage of food and water. Scarcity of resources has caused huge displacement of people. Drought and shortage of food have resulted in resettlement programs that have increased mobility and migration.

The populations in the east, and south east, particularly, the pastoralists remain vulnerable to drought and famine. Currently, over six million people are in dire need of food (DPPA Press Release, 2009).[9] Unlike the past imperial and military regimes, the present government has been responsive in dealing with the challenges of climate change. However, studies made at Miz-Hasab Research Centre show that vulnerability to HIV/AIDS has increased in communities affected by climate change especially among internally displaced people and re-settlers.[10]

Methodology

This article tries to highlight and give clues to the answers of the following questions:

How vulnerable is Ethiopia to HIV/AIDS because of climate change-the HACC (HIV/AIDS Climate Change complex?

(i) How vulnerable is Ethiopia to HIV/AIDS because of climate change—the HACC (HIV/AIDS Climate Change complex[11]?
(ii) What socio cultural practices exist that enhance vulnerability to HIV/AIDS under conditions of climate change?
(iii) What social capital exists that could be used for prevention and control of HIV /AIDS in situations of climate change induced emergencies and displacements?
(iv) What services could be made available to prevent and control the spread of HIV/AIDS during emergencies?

Moreover, the study aims to:

(i) highlight the need for locally researched information for the development of frameworks and tools for management of HIV in situations of climate change induced emergencies; and
(ii) incorporate health (particularly HIV/AIDS) as a key theme in the adaptation strategies of NAPA. It also looks for a strategic alliance of NAPA, HAPCO and FMOH to develop a comprehensive health package to deal with health problems, especially HIV/AIDS, during emergencies.

Data Sources

The major data sources for this article are the studies made at Miz-Hasab Research Centre from 2003 to 2006. Data collected from field visits, interviews with key informants made by the author in 2009 at federal and selected regions namely Dire Dawa and Somali have been included.

The authors would like to admit that there has never been a direct study made on climate change and HIV/AIDS. The data used in the write up of the article come from works on Internally Displaced People and HIV/AIDS (Hailom, Aklilu, and Tempo, 2003); Resettlement and Cross-generational Sex and HIV/AIDS (Hailom and Aklilu, 2006); Gender and HIV/AIDS (Hailom et al., 2004); and Climate Change and Vulnerability to HIV/AIDS (UNAIDS, 2008; 2009). All these studies were conducted in Ethiopia and one of the authors of this report has been the PI of these studies.

These works have wider coverage and fairly describe the challenges in HIV/AIDS in situations of climate change induced displacement. Twenty key informant interviews with people at the federal and two regions; Dire Dawa and Somali regional state were included. Descriptive analysis of statistical data and thematic analysis of qualitative data have been used to identify emerging issues on the topic.

The sites included in the study have been purposely selected in consultation with clients on the nature of the emergencies and displacements caused mostly by shortage of food and resource related conflicts and wars. Data collection instruments were standardized questionnaires that were piloted to ensure readability, coverage, and comprehension.

The study on **HIV/AIDS and Internally Displaced People in Ethiopia (2002/3)** was conducted in seven regions (Addis Ababa, Amhara, Oromia, Tigray, Southern Nations, Nationalities and People (SNNPR), Somali Regional State, Afar Regional State) and in eight IDP sites: Mesealmia (Addis Ababa), Shashamane (Oromia), Zalambesa (Tigray), Metema

(Amhara), Kalti (Addis Ababa), Shakiso (SNNPR), Harishek (Somalia), and Loggia (Afar). The study lasted for six months.
The study used cross sectional survey quantitative data and key informant in-depth interviews and FGD qualitative data: 1,243 cross-sectional survey respondents stratified by age and gender; 53 key informants, and 22 focus group discussions. The purpose of the study was to document and describe the conditions of the IDP sites in relation to vulnerability to HIV/AIDS. Data was collected on knowledge, attitude and practice of IDPs on HIV/AIDS and their sexual behaviour along with social and economic factors that were believed to exacerbate IDP vulnerability to HIV infection.

The HIV/AIDS and Re-settlement (2004) study was commissioned by International Office for Migration (IOM) and UNAIDS. The study lasted for six months. The Government of Ethiopia developed a policy of voluntary resettlement of people vulnerable to climate change induced food shortage. Resettling people living in uninhabited fertile areas was taken as one approach to mitigating the problem of food security. IOM, UNAIDS and other UN agencies were concerned that the resettlement of people would contribute to the rapid spread of HIV/AIDS. It was felt that the shuttling of families to new sites could give much space to HIV infection. The resettlement framework allowed re-settlers to retain their property at their place of origin for three years before they actually decided to settle in the new sites.

The study covered resettling and receiving communities in Oromia, SNNPR, Amhara, and Tigray, including four resettling communities: Chewaka, Bulkabul, Maiagam, and Dasgundo, and four receiving communities: Dabohana, Chere, Bakel, and Kokit. The data was drawn from 1,201 randomly selected respondents stratified by sites that were receiving or resettling communities, 16 focus group discussions, 43 interviews with key informants, and four case studies.

The study on **Gender and HIV/AIDS** (2004) was commissioned by UNDP and conducted in ten woredas (districts) in Oromia and six woredas in SNPPR: Yaya Gule, Yabello, Kereyou, and Fedis in Oromia region as well

as Meskam, Alaba, Humbo, Dawro, Wenago, and Hamer in SNPPR. The study lasted for one year. The study sites were selected purposely by identifying woredas from agrarian and pastoralists that are exposed to climate change and shortage of resources. The study aimed at documenting and explaining factors that expose men and women to HIV infection in areas affected by natural calamities along with the prevailing masculinity and femininity ideologies. The study collected quantitative and qualitative data from 2,000 survey respondents, 40 FGDs and 236 in-depth interviews with a balance of men and women aged 15 and above.

The study on **HIV/AIDS and Cross Generational Sex in Ethiopia with Reference to Addis Ababa and Adama (2005)** was commissioned by the Population Service International (PIS). It was conducted in Addis Ababa and Adama. The study lasted for three months. The purpose of the study was to understand the underlying causes of cross generational sex and to develop HIV/AIDS messages in relation to its practice. Addis Ababa and Adama were believed to be conducive for the practice in cross generational sex. They are big cities and are located close to each other. They have more business and recreation centres that are believed to be contributory factors to cross generational sexual relationship. Qualitative data was collected from twelve focus group discussions involving young women under the age of 18, each FGD having eight members and interviews with fifty men who were aged 50 years and above.

The study on **Climate Change and Vulnerability to HIV/AIDS (2009)** was commissioned by UNAIDS. It used data from the above mentioned studies among others and included field visits in Addis Ababa, Dire Dawa and Somali Regional State. This is the only study commissioned by UNAIDS New York on climate change and HIV/AIDS. The study was based on available works related to climate change and some field work at the centre and the city of Dire Dawa and Somali Region. The study lasted for two months. The field work involved 20 key informant interviews and observations of areas affected by climate change. In addition to interviewing officials in the selected regions, flood victims in Dire Dawa were interviewed and their new resettlement sites were observed.

Literature from UN sources on climate change are reviewed and critiqued. The conceptual framework on HIV vulnerability and climate change known as HAAC is used as a reference point in the analyses and discussions made by the authors.

Study limitation

The works, apart from the last one, were not purposely designed to connect climate changes and vulnerability to HIV/AIDS. However, the study subjects are one way or the other victims of shortage of food and displacements mostly caused by drought, flooding and famine. These phenomena are induced by climate changes. Therefore, the study used the data from the works on displacement, resettlement, gender and HIV/AIDS, and cross generational sex to highlight the vulnerability of communities to HIV/AIDS, particularly women and children who are already victims of harmful cultural and traditional practices. This study avoided the use of analytical statistics tools because the works used were meant to generate empirical data for policy considerations and program ramifications in the prevention and control of HIV/AIDS in Ethiopia.

The study used descriptive analysis of statistical data wherever necessary and thematically analyzed qualitative data to explain underpinning causes of events observed and emerging themes. The study is based on limited literature because most of the literature on climate change focuses on explaining the phenomena and ways to deal with the phenomena especially in tackling food shortage and environmental degradation. We hope that what we have attempted would trigger interest and more research on the subject we raised.

Findings

The data from the above works show that climate change induced famine and shortage of food are the major causes of individual and group displacement in Ethiopia. Along with shortage of food and resources, conflicts emerge causing more internal displacement and camp life. These

problems have exacerbated transactional and cross generational sex, rape, abduction, and unsafe sex. The current attempts made by the government to deal with food shortage through resettlement programs have not made HIV/AIDS services available. The study shows that settlers were more exposed to HIV/AIDS and in some cases acted as bridges for spreading the disease. The National Adaptation Program Action has not included HIV/AIDS activities that could be managed with HAPCO and/ or FMOH in times of emergency as part of its adaptation strategy. Nevertheless, the response of the Dire Dawa City Administration to the August 2006, flood to prevent the spread of HIV/AIDS has been exemplary -had good practices on prevention, treatment, care and support services.

The factors that this study has identified in climate change on vulnerability to HIV/AIDS include:

(i) Displacement

The study on HIV/AIDS and Internally Displaced People in Ethiopia (2002/3) shows that the major causes of displacement were drought and resource-related conflicts. Ethnic and tribal conflicts are mostly triggered by competition for meagre resources. While men die or get injured in conflicts, women and children migrate looking for safety and support. Internally displaced people stay for longer time in camps under miserable conditions. The IDP study in 2002/3 showed that 90% of displaced people stayed in camps for more than three years. Women and children constituted over 89% of the displaced community; and over 60 percent of the households were headed by women.

The socioeconomic conditions of the IDP sites exhibited a very harsh lifestyle with high vulnerability to HIV infection. Transactional sexual relations were widely practiced. Female heads of family practice sex for gifts. Young women practiced sex for financial gift. Families encourage their young women to engage in sex for financial gift or pay. 11% of Metema women openly practiced sex for income. This practice was widely observed in Addis Ababa. Even communities that strongly condemn the practice were engaged in the business. For example, a number of displaced

Somali women heading household in Harteshek were reported by key informants that they engaged in sex for gifts with soldiers and non-Somali traders[12]. The income they generated by cleaning and washing clothes in nearby communities at service-giving organizations (like hotels) did not meet their needs. The availability of young non-Somali women migrating to Somali Region encouraged Somali businessman and officers to have lovers. Such women reported that they have sexual affairs with such men and without condom.

According to the study, the outstanding causes that made the IDP vulnerable to HIV were (i) shortage of food, clothing, and shelter, (ii) lack of health, educational, and social services, (iii) HIV/AIDS services scarcely available, apart from health workers giving general orientation to IDPs on the disease. Although IDPs were allowed to access available services in nearby communities, their situation did not allow them to easily access such services. Their life style exposed them to stigmatizing attitudes from the host communities.

In conflict zones, women were raped, especially in the bordering areas between Ethiopia and Eritrea. Key informants reported that the peacekeepers stationed to maintain peace between Eritrea and Ethiopia tempted women for sex by offering significant amounts of money. This practice is widely reported in regions experiencing armed conflict. According to a study made by Samuels, Harvey, and Bergmann (2008: vii-viii): "Complex social factors associated with armed conflicts such as the use of SGBV [sexual and gender based violence], especially rape as a 'weapon of war', displacement, disintegration of families and communities, changes the stable sexual relationships and the social norms giving sexual behaviour and fatalism among soldiers and civilians in a war situation may all increase vulnerability to HIV."

The IDP study showed that authorities delegated to deal with the displacements and emergencies prioritize making food, shelter and water available to victims. The threat from HIV/AIDS is not considered as a concern to be addressed in such situations. Counselling and testing services

barely existed. ART services were unimaginable. As a result, the IDPs exhibited a low level of knowledge on transmission, prevention and treatment of HIV/AIDS. Misconceptions on ways of HIV transmission and prevention, care and treatment were immense. Suspected individuals living with HIV/AIDS were subjected to rumours, gossip, stigmatization, and discrimination. The team observed PLHA suffering from discrimination and isolation. In one of the locally managed Shakisho mining sites an ex-Somali soldier suspected of living with HIV/AIDS was put in a closed room till he died of starvation. When it comes to practice, the use of condom was unthinkable. Unsafe and multiple sexual relationships, however, were widely practiced.

(ii) Resettlement

The study ***on Re-settlement and HIV/AIDS (2004)*** showed a number of characteristics that are conducive for the spread of HIV/AIDS.

(a) Absence of community norms. Re-settlers included families led by men and/or women, singles and unemployed youngsters. Some were collected from semi-urban towns. The women who were settlers were predominantly divorced, widowed or singles. Almost all married men came to settlement sites by leaving their families in their place of origin. Unemployed urban men, mostly youth, were included as settlers. Delcha and Bulkabul settlement sites in SNNPR were typical examples for harbouring unemployed youth collected from towns.

A majority of Oromia-Chewaka settlers were Muslim and came from western Hararghe. Some men came with their families and some left their families back home. Resettlement sites in Amhara and Tigray (Metema and Humera, respectively) are located in commercial crop areas where seasonal labourers flock to the sites in huge numbers. They are followed by commercial sex workers coming from the northern and central areas of the country. During the study period there were military camps and troop movements happening regularly to check activities of rebel groups that operated from the Sudanese and Eritrean borders. All these created complex social factors that made settlers vulnerable to HIV infection. Absence of

social and community norms and structures exposed the settlers to all sorts of crime including rape and looting, for example.

(b) Poor social services. Each community visited had a clinic, but with poor health service delivery systems. The clinics reported that they could hardly meet the settlers' needs. Due to different reasons, including malnutrition, a large number of people used to seek medical assistance. Of the population studied, 97.5% tried to acquire medical service and only 47.4% of those persons had access to health services. As a result, 21.7% of the persons that did not have access to health services used faith healers, 10.7% sought traditional healing methods and 27.5% received religious counselling. No HIV/AIDS services were available in any of the sites studied.

School services were poor and in some cases did not exist; only 22% of those surveyed reported their children were attending school. Bulkabul and Maiagam resettlements did not have schools at all. The Chewaka and Das Gundo communities had schools with temporary grass roofs. Classes remained crowded, each having a crowd of over 200 children.

Access to information was limited. Only 32.1% reported that they access information through radio; and 4.9% through TV by travelling to nearby towns. Settlement sites did not have TV services; and the only sources of information to settlers were social gatherings, neighbours, friends and rumours. Both receiving and resettling communities exhibited poor knowledge with regards to unsafe sex practices and the use of condoms. The risk of HIV infection through blood contamination was feared more than the risk of HIV infection through unsafe sex. Misconceptions on modes of transmission such as mosquito bite, sharing food with PLHA, kissing and sharing public toilets were frequently mentioned.

Women in the resettlement sites exhibited lower knowledge of HIV/AIDS, and reproductive health services as compared to women in the receiving communities. Although most of those interviewed said that they have heard of HIV blood tests and were favourable for testing and disclosure, their reason was to know those that are living with the virus. They said that PLHA should be separated and live in different places; even some informants suggested that PLHA should be removed from the sites. Sex

with multiple partners and with commercial sex workers without condom, however, was widely practiced. The research team documented cases of rape, forced sex, and violence against sex workers who refused to have sex without condom. Community leaders reported that condom was a major source of fighting between men and sex workers. A significant number of men who left their wives at their place of origin married young women, practiced sex with sex workers and also maintained sexual relationships with their legal wives. The separation of families encouraged rape, forced sex, abduction, and underage marriage.

However, there were some encouraging social capitals that the research team made: (i) communities expressed a feeling of vulnerability to HIV; (ii) communities exhibited a desire to access HIV testing and HIV-related services; (iii) community Based Organizations, especially HIV/AIDS clubs, were eager to help; spiritual fathers at times gave spiritual counselling, (iv) the *woreda* and *kebele* administration, although lacked both skills and resources, looked eager to make HIV/AIDS-related services available to the settlers.

(iii) Gender based perceptions and practices

Gender based social norms and value systems particularly perceptions and practices associated with the roles and positions ascribed to women by societies have increased the spread of HIV/AIDS and vulnerability of men and women to the pandemic. The areas that are repeatedly affected by climate change are settled by communities with unfavourable beliefs and practices. A study on *Gender and HIV/AIDS in Ethiopia* (Hailom et al., 2004) showed that gender norms along with shortage of resources exacerbate HIV/AIDS spread in the studied agrarian and pastoralist districts.[13]

The study revealed that self risk assessment remained low at the individual and community level and therefore there was no change observed with regard to their sexual behaviour. The prevailing cultural and social norms and values in the studied communities exposed women to economic vulnerability, inability to access services and information, denial of their basic rights, and increasing vulnerability to HIV infection. The laws that

were supposed to protect women were hardly reinforced by police and the courts. Surprisingly, police officers and judges were also reported to be participants in the sexual abuse of women. Extramarital sexual relations, abduction, rape, polygamy, sharing of wives, widow inheritance, allowing men to practice sex before marriage, requiring women to be virgins before marriage and FGM were observed to be culturally sanctioned practices.

The pastoral communities such as the Borenas, Kereyous and Hammers were more affected by climate change and natural disasters. They were observed to be on the move in search of pasture for their livestock. They were more at risk of HIV infection because they were sexually chained with each other through the practice of woman and husband sharing. Customary practices created at a certain period of a community's social evolution remained the same in the context of climate change and HIV/AIDS. HIV/AIDS prone practices like *jala jalto*[14], *widow inheritance*, and *evangadi* (a dancing ceremony in Hamer where young women and men are permitted to have free sex) are still in place.

The educational opportunities and health services available to pastoralists remained low; wherein most of their children did not go to school. Women in rural communities have limited access to information on HIV/AIDS and respondents reported cases of male and female acquaintances dying from AIDS. Externalizing the HIV infection to associate it to outside groups and cultures were frequently mentioned by key informants.

The study documented the availability of social structures and social capital that can be used to change existing gender-related values and norms. Tribal and religious leaders are potential players in such communities, for they play key roles in maintaining social harmony and remain influential. Community-based associations such as *Idir*[15], *mahber*[16], *debo*[17] exist. They are social assets of cooperation and working together. They are also community forums for resolving problems and disseminating information. In some woredas the research team observed some initiatives that aim at changing community norms and values. Community leaders in Alaba were involved in facilitating community conversation with the objective of stopping cultural practices that increase the risk of HIV infection. Community leaders were mobilized in Yabello, Alaba and Butajira, for

example, to deal with harmful gender based customary practices. Key informants reported that major changes were occurring in those areas; in Butajira HIV testing before marriage has become mandatory, for example.

(iv) Practices in cross generational sex

The practice of sexual relation between underage girls and older men has been scaling up in key urban areas in Ethiopia. The practice chains the young and the old in sexual network. Younger women have their younger lovers and older men have their legal wives. The innocent older wives find themselves chained in this relationship. This has become a pathway for HIV/AIDS spread. In most cases the older men are positioned to buy or get sexual service from poor or underprivileged young girls who in most cases belong to families that migrated from rural areas because of food shortage.

The study on *HIV/AIDS and Cross Generational Sex*[18] *in Ethiopia* (Hailom and Aklilu, 2006) revealed that the practice is widespread in the two major cities studied: Addis Ababa and Adama. Most of the young women that were involved migrated from the rural areas of northern and middle regions of Ethiopia; from areas that are affected by climate change and food shortage. Parents of poor school girls had similar histories. Studies on climate change induced food shortage show that when faced with limited opportunities, women and girls migrate to urban areas and turn to commercial and transactional sex.[19]

A majority of older men engaged in transactional sex with underage girls were business men, administrators, school teachers, policemen, army officers and surprisingly in some instances religious fathers. Business men used their financial power to win the consent of underage girls to engage in such sexual relations. In the case of office holders, teachers and religious fathers, they used their power to persuade and/or force underage women to enter into such relationships.

For most young women from poor families, sex with rich older men was believed to be a quick way of getting job and generating money. The women who engaged in the practice of cross-generational sex supported

themselves and their poor families with the money they received from their older male partners in most instances. For older men, the motivation to engage in cross generational sex is mostly psychological and in some cases culturally sanctioned. Women FGD participants reported that older men perceived women irrespective of age as if they were created to satisfy the sexual needs.

Older men think that sex with younger women keeps them potent and makes them feel younger. The study revealed that older men did not want their young partners to use the pronouns that are uttered to show respect and/or seniority in age, position and the like. Older men wanted to be treated as if they were equal in age and acted, although awkwardly as some participants reported, as if they were young lovers. FGD participants reported that some of these old men are influenced by western pornographic films. Almost all confirmed that unsafe sex was widely practiced and that older men refused to use condoms. Unfortunately, the young women and their older partners did not consider themselves vulnerable to HIV infection. Older men think that young women are likely to be HIV negative. Younger women also think that older men are married and therefore cannot transmit the HIV virus.

The study further revealed that older and younger women were set as adversaries because of cross-generational sex practices. Older men enjoy having many younger lovers in addition to their older wives. Younger women also had younger male lovers. In some cases, the monies that young women received from older partners were shared with their younger lovers. Participants reported of older men and their partners (young and old) who died of HIV/AIDS. Younger women also reported to have experienced unwanted pregnancies and abortion-related complications. Some abortion-related complications resulted in younger women dying or afflicted with permanent obstetric damage. Some women became street dwellers, sex workers, drug addicts, alcoholics and school dropouts. A number of underage women were reported to have died of HIV/AIDS and many live with the virus. The study reconfirmed that economic vulnerability of women, lack of education and information, lack of legal protection, and

lack of community awareness in the basic human rights of women including reproductive health right are fuelling the spread of HIV/AIDS.

(v) Climate change induced emergencies

Our planet has been witnessing all forms of emergencies: floods, earthquakes, fires, cyclones, etc. Although, it is not reported widely, emergencies have been happening in Ethiopia, mostly connected with flooding and wars. During emergencies, the primary concern of governments and concerned international and local organizations is how to mitigate the challenges of food, water, shelter and at most controlling water and insect borne diseases.

Variables affecting HIV vulnerability in emergencies include (i) pre-emergency HIV prevalence, (ii) the duration of the emergency, and (iii) pre-existing knowledge and awareness about HIV.[20] Access to prevention services, treatment and care in emergency situations are rare. Availability of ART services are hardly mentioned in the discourse of international aid to HIV/AIDS programs.[21] The UN action on climate change mentions of the use of technologies for adaptation purposes to ensure livelihood, but does not make any reference to HIV/AIDS.[22] The same is true with the Poznan document on risk management.[23]

Key informants in Ethiopia dealing with emergencies said that their major concern is feeding those that are under emergency. The National Adaptation Program Action does not mention of coping mechanisms under emergency situation in relation to HIV/AIDS. An informant working in emergency preparedness says:

> During an emergency our major concern is making food and related services such as shelter and clothing available to people affected by the situation. HIV/AIDS is part of the health package and the Ministry of Health takes care of that. During an emergency the Disaster Preparedness and Prevention Commission, in collaboration with other sector ministries such as the ministries of health, agriculture and rural development, water resources and education along with concerned

> regional and woreda as well as kebele administration, work to help the victims. The major concern is survival and making those survival needs such as food, water, clothing and shelter available. Disaster affects individuals but the response of government is when a community as a group is affected by a disaster, not for individuals.[Key informant from Disaster Preparedness and Prevention Agency].

The interviews with Somali regional state officials showed denial and a belief system that Somalis are not vulnerable to HIV infection. The region is settled by pastoralists and is very much affected by drought. It is also affected by floods when heavy rain falls on the highlands. There are only six hospitals and 36 health centres providing health services in the whole region, covering one third of the land mass of Ethiopia.

The visit to Jijiga by the author proved that during flooding, or famine caused by drought, the emergency responses do not include HIV/AIDS services. Discussions conducted with the health bureau and the regional HAPCO confirmed that the emergency response in health deal with WASH (hygiene and sanitation), EPI, malaria and other epidemic control such as acute watery diarrhoea, surveillance, and nutritional support.

The mobile health team is managed by international NGOs in collaboration with the Regional Administration and Heath Bureau. With the major support of UNICEF, there are 28 mobile teams working with drought victims in remote areas; however, no HIV component is included in the health package. Regional informants say that HIV is not a problem of the pastoralists; HIV is the proposed problem of urban areas and that the problem is due to contact with non-Somalis such as the Habeshas.

Such misconceptions are also shared by program people at the center. A key informant explains:

> There is no special package on HIV/AIDS for communities experiencing emergency as a result of flooding and other climatic changes including displacements caused by conflicts. When pastoralists experience displacement due to flooding/drought, focus is

> given to other communicable diseases. HIV is not considered as a threat in such communities for they move with all their family members; the family is intact. The other is cultural reason; such communities do not think HIV is a problem [Federal HAPCO informant].

The pre-emergency social mobilization and awareness of HIV/AIDS among pastoralists especially among Somalis is non-existent. However, there is evidence that suggests Somalis are vulnerable to HIV infection. About 60% of women in Jijiga hospital that were tested for the months of June and July 2008, tested HIV positive and a significant number of them were Somalis.

While the situation in dealing with emergency situations look dire particularly in dealing with HIV/AIDS, the way the Dire Dawa Administration responded to the flood emergency in 2006 has left us with a lot of good practices to learn from. The Dire Dawa Administration and Health Bureau response to the emergency caused by the 2006 flood was well coordinated and comprehensive enough to prevent the spread of HIV infection. In addition to making basic necessities such as food, water, shelter, and clothing available to the flood victims, the city's administration took every precaution to create conditions that deter HIV infection by making HIV/AIDS services available on time.

The disaster displaced tens of thousands of people from their homes. The city administration used schools and available facilities for sheltering the victims, separated men from women, made law enforcing police availability within close proximity to the disaster area. As a result, no crime was reported. Individuals were identified and reunited with their families. Each household was given a tent as a temporary shelter.

The administration put all types of medical services in place for victims in all health facilities at no cost to the consumer. Services in education, counselling, testing, treatment, care and support for PLHA were made available. One focal person per ten households was assigned to teach families on HIV/AIDS. Condoms were made available in adequate quantities. Families and youth were given continuous education on HIV

prevention, transmission, treatment services including testing and access to ART. Youth, women, men and elders were organized and actively worked in mobilizing victims and passing HIV and reproductive health messages through all available channels such as tea and coffee ceremonies, meetings and regular group discussions. The follow up from health providers, city officials and the federal government at all levels was done on a regular basis. The camp life ended after eight months. CBOs, NGOs and government structures from the regional level up to kebele were involved in assisting the victims until they were given permanent residences. All sexually active members of the community were tested for HIV on a voluntary basis. Health providers reported that there was a high demand for testing. Those who were HIV positive before the flooding were identified and continued to receive treatment, care and support, including ART. Special attention was given to PLHA, vulnerable children, and groups such as the disabled. PLHA were given priority by the local government in receiving permanent shelters. Dire Dawa now has a permanent committee established to deal with emergency situations. It is chaired by the city mayor and all sectors, NGOs and community representatives are included in the committee. The community develops projects to reverse potential emergencies caused by climate change– such as reforestation programs, building walls along the river banks, making emergency services readily available, etc.

Discussions, Conclusions and Way Forward

Discussions

Ethiopia experiences, almost on yearly basis, disasters and displacements related to climate change. What we were able to see in the UN documents on climate change and national adaptation program to deal with effects of climate change, the program documents of HAPCO and the activities of the Disaster Preparedness and Prevention Agency, HIV/AIDS spread has not been seen in relation to climate change. The connection of climate change and HIV/AIDS is not direct. On the other hand, the connection of climate change with food insecurity, loss of life and property is direct and visible.

Strategies for adaptation and coping mechanisms with climate change focus on reducing carbon emission, environmental protection, and food security.

As has been elaborated in this paper, climate change induced emergencies lead to displacement, mass mobility and migration - exposing migrants to engage in practices that expose them to HIV/AIDS. This has been observed and documented in the studies referred in this paper.

People living in areas that have been affected by climate change for a longer period gradually migrate to urban areas. Women and girls engage in transactional sex. Existing gender norms make women vulnerable to HIV infection. Governments get forced to use resettlement programs as a way of dealing with food shortage. However, this action in turn aggravates environmental degradation and desertification. More than anything else, it creates conditions for the rapid spread of HIV /AIDS as discussed and evidenced in this paper.

This study revealed that documents in HIV/AIDS policy have no reference made to climate change. Disaster preparedness activities do not include HIV/AIDS prevention. The current national document on adaptation program of action (NAPA) does not make any direct reference to HIV/AIDS. What is articulated in health is prevention of water born diseases such as diarrhoea as major concern. HIV/AIDS is not seen as a major concern in such situations. The interviews and discussions made with policy and program key informants show that the thinking on connecting climate change to HIV/AIDS vulnerability has not evolved yet. The NAPA steering committee and higher authorities did not see the connection between climate change and HIV/AIDS. A key informant in NAPA admitted that no expert on climate change came with the idea of connecting climate change and spread of HIV/AIDS, although he added that the disease is major impediment to the overall development of the country. The National HIV/AIDS Prevention and Control Office does not see climate change induced vulnerability to HIV/AIDS as a notion by itself and as a theme to be given special focus in areas affected by climate change. The Disaster Prevention and Preparedness Agency does not see HIV/AIDS as its

mandate of concern. Informants emphatically informed the researcher that DPPA's major concern is availing food and shelter and of course water to victims; and then rehabilitating them to lead a normal life. DPPA informants say that health is the mandate of the Ministry of Health, although they are required to mainstream HIV/AIDS activities in their programs as per the multi sectoral HIV/AIDS prevention program of the country.

The challenges of climate change cannot be mitigated through the use of food security related technologies and related adaptation strategies only. When climate changes, everything is affected. The studies referred in this paper show the multifaceted effect of climate change on people. The strategy of dealing with climate change need to look into a whole range of social, economic, political and cultural set ups that exacerbate the negative consequences of climate change. HIV/AIDS has been treated as an issue in this paper, for it is a crosscutting issue which deals with a multiple of social, economic and cultural factors. We are not sure on how much carbon would be reduced, but we are sure that there would be climate change and we have to deal with it comprehensively.

Conclusions

Climate change and HIV/AIDS remain major impediments for Ethiopia's development effort. Cultural practices in most instances exacerbate the magnitude of the damages caused by climate change and climate change induced HIV/AIDS transmission. The country is very much affected by adversities related to climate change, thereby exhibiting a lot of mobility resulting in vulnerability to HIV/AIDS. It still lags behind in availing HIV/AIDS-related services during emergencies and displacements.

Ways Forward

(i) Broader strategy

As part of the adaptation strategies to climate change outlined in NAPA, we think that there should be good governance and equitable distribution of resource to avoid conflict and displacement. Resettlement is a temporary

solution and we have seen that it fuels HIV spread and environmental degradation. Family planning and population control activities should be in place. Technologies which are environment friendly have to be introduced. Raising food production and ensuring food security is one goal. There should be consorted effort to enlighten the broader communities to lead a rational life. Education is a key factor for change. Social services such as health, legal services and access to information should be available in close distance. There should be efforts to develop the social capital each community possesses for bringing about behavioural change towards dealing with climate change, HIV prevention, and gender equity. Food security and economic well being along with scientific and social knowledge can help in changing the behavioural practices of people. The authors believe that if NAPA is reformulated by incorporating these notions, it can make an impact in the life style of people and in the prevention and control of HIV/AIDS.

(ii) Specific strategies

The HIV/AIDS programs should give special attention to prevent the pandemic in relation to climate change induced displacements, mobility, migrations, and emergencies:

- HIV/AIDS programs should comprehensively include all people irrespective of their occupation and location —all are vulnerable. Pre-emergency knowledge of HIV/AIDs is a determining factor in reducing HIV vulnerability.
- HIV/AIDS education needs to be culturally sensitive; services in HIV/AIDS treatment, care and support should be available at accessible distance. Clinic based services such as testing, counselling, and ART should be available in communities vulnerable to climate change, such as pastoralists. The formation of youth and women's associations has proved effective in transmitting HIV-related messages and issues surrounding reproductive health. Elders could also manage sites in such a way that transactional sex and rape could be deterred. Creating communities of excellence to give care and support to PLHA during adverse situations would enhance prevention of HIV /AIDS.

- Every effort should be made to improve women's access to basic social services, and every social capital should be used to deal with harmful practices and their underpinning social norms.
- Prevention, treatment, care and support services should be packaged to be delivered to areas affected by emergency.[24] These should include:
  - Prevention: Using of available community social capital in an effective way to pass HIV/AIDS messages.
  - Making all basic services (food, nutrition, water, and shelter) available as quickly as possible.
  - Preparing the victims to support themselves while in camps—training in income generating activities, especially for women.
  - Secure sites of disaster from any sort of violation of human rights especially women and children tend to be victims in such situations, for example the case of Dire Dawa.
  - Give special attention to PLHA and vulnerable groups– make sure that PLHA on ART continue their treatment and counseled to get both social and psychological support.
  - Biomedical services in HIV should be available: VCT, PMTCT, ART
  - Care and support services should be given on regular basis: WFP support to PLHA is a good example.
- Emergencies are part of life. People in emergency situations or those placed in camps be rehabilitated to live a normal life as quickly as possible. Any camp life of displaced people has to be shortened as much as possible. The camp life of IDPs in Addis Ababa, Hartishek and the gold mining sites at Shakiso became breeding places for various communicable diseases, particularly sexually transmitted diseases. During camp life and once rehabilitated, people must have access to HIV/AIDS services (especially VCT and treatment-related services) as well as support services for those living with HIV/AIDS.
- During emergencies, the lessons learned from the Dire Dawa response to the emergency caused by flooding are worth emulating for social mobilization, leadership and good governance.

- The mobilization of the entire community—focal persons, health workers, availability of the health structures, use of local influential people to communicate HIV/AIDS messages.
- The management of the emergency—separation of men from women, use of police force to maintain security, law and order of the victims of the flood, close supervision and follow-up of stakeholders working at different levels.
- Availing HIV/AIDS prevention, care, and support and treatment services.
- The formation of an emergency alert committee. The Dire Dawa City Administration has a committee which is chaired by the city mayor and involving all stakeholders—this committee evaluates events that can cause emergency situations and is ready to respond immediately to prevent such disasters before they occur; all follow ups for early warning are coordinated and updated.

• Climate change induced vulnerability to HIV/AIDS can also be dealt with effectively by strengthening the health extension program which has already created visible impact in changing the behavior of people to live a healthy life style. Ethiopia has scaled up the Health Extension Program[25] which is designed to transfer knowledge and skills in health to households. This knowledge is critical to deal with HIV/AIDS in emergency situations.

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[14] Women and men can have as many lovers as they can as long as the men are able to give compensation to the legal husband for the first encounter in the form of heads of cattle.

This practice sexually links the Borenas, Guggis and Kereyous of Oromia. In addition to *jala jalto,* the communities practice polygamy.

[15] *Idir* is a voluntary association used for contributing money to cover cost of funerals of members. This is now being developed to assist PLHA and gradually into a community insurance scheme.

[16] *Mahber* is an association normally organized in the name of a patron saint and members share ideas and help each other.

[17] *Debo* is a kind of an association used to work in groups such as building a shelter, harvesting crops and the like.

[18] HIV/AIDS and Cross generational sex is defined as sexual relations between economically vulnerable young women and older men that can afford to buy sex.

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