Analysis of HIV/AIDS Prevention and Control Program in the Ethiopian Roads Authority

Netsanet Sileshi Bogale

Ethiopia

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A thesis submitted in partial fulfillment of the requirement for the degree of Masters of Public Health

By Netsanet Sileshi Bogale, Ethiopia

Declaration:

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This thesis **Analysis of HIV/AIDS prevention and control program in the Ethiopian Roads Authority** is my own work.

Signature:  ……..

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List of Abbreviations

ADB	Asian Development Bank
ADBG	African Development Bank Group
AIDS	Acquired Immunodeficiency Syndrome
BSS	Behavioural Surveillance Survey
CDC	Centre for Disease Control
CSA	Central Statistical Agency
EC	European Commission
EDHS	Ethiopia Demographic and Health Survey
EMOT	Ethiopian Ministry of Transport
EMSAP	Ethiopian Multi-sectoral HIV/AIDS project
ERA	Ethiopian Roads Authority
FHAPCO	Federal HIV/AIDS Prevention and Control Office
FMoH	Federal Ministry of Health
GDP	Gross Domestic Product
GTZ	German development organization
HIV	Human Immunodeficiency Virus
HSDP	Health Sector Development Program
IEC	Information Education Communication
IFC	International Finance Corporation
ILO	International Labour Organization
IOM	International Organization for Migration
MOFA	Ministry of Foreign Affairs

MoFED	Ministry of Finance and Economic Development
MWUD	Ministry of Works and Urban Development
NGO	Non-Governmental Organization
SNNPR	Southern Nations and Nationalities People Region
STD	Sexually Transmitted Disease
PLWHIV	People Living with HIV
WHO	World Health Organization

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Abstract

Introduction: Road construction workers at the Ethiopian Roads Authority are at higher risk of acquiring HIV infection due to a number of influencing factors such as migration, age (15-59), and males staying in a camp which could facilitate the practice of high risk behaviour. This thesis analyses the program from 2004 to 2011.

Objective: To critically analyse the Ethiopian Roads Authority Workplace HIV/AIDS prevention and control program in order to give recommendations.

Methodology: the evaluation framework from EC and WHO was adapted to analyse the program. Also literature, reports, and official documents of the organization were used for the analysis.

Findings: The program objectives were relevant; however, with limitations. The needs of the target population were not assessed so far. Efficiency of the program with regard to human resources was found to be weak. Similarly the assignment of sub-contractors to the project sites was limited to cover all the road projects due to different problems. Awareness raising activities and training were also found to be limited. The results of the program were not enough to judge the effectiveness but some gains were stated; inclusion of HIV activities in contract agreement.

Conclusion: From the findings the ERA HIV /AIDS prevention and control program is relevant; however, efficiency was very limited for some activities and effectiveness could not be assessed due to absence of relevant information.

Recommendation: Evaluating effectiveness of the program, improve documentation and reporting, studies assessing HIV situation of the sector, and identifying needs of the target population are recommended.

Word Count: 12,793

Key words: HIV, road construction, Ethiopia, prevention, Ethiopian Roads Authority

Introduction

Sub-Saharan Africa is the region worst affected by HIV and AIDS morbidity and mortality. Ethiopia is one of the countries in this region affected by this disease with the prevalence of 2% among 15 - 49 years with 1.1 million HIV positive people (WHO, 2010, FHAPCO, 2007a). The spread of HIV infection in the country is heterogeneous; affecting all age groups, and both sexes; however, there is marked regional variation (FHAPCO, 2010). In 2008 HIV prevalence in urban area was 7.7%; whereas, in rural areas it was 0.9%. There is also variation among urban settings; Somali region 2.4%, Tigray region 9.9%, Amhara 10.7% and Afar region 10.8% (FHAPCO, 2009). This regional variation shows the need for tailoring prevention programs based on specific areas and conditions.

The government of Ethiopia put in place a National HIV/AIDS policy in 1998 to make an enabling environment for the prevention of HIV infection (FHAPCO, 2010). A comprehensive multi-sectoral response to enhance prevention and control activities was started following the United Nations Assembly declaration in 2006, towards universal access to HIV prevention, treatment, and care and support (FHAPCO, 2010). This multi-sectoral response supported and coordinated workplace HIV/AIDS prevention and control activities. Road construction workers were one of the ten target populations identified by their direct relation to risk behaviour, included in the second Behavioural Surveillance Survey, 2005 (EMOH, 2005).

The Ethiopian Roads Authority (ERA) is a governmental organization with the major function of construction and administration of roads in the country (MWUD, 2012). This wide responsibility makes the employees move from place to place with different road construction projects. The organization is one of the first to have started HIV prevention programs in their workplace in 2001 by recognizing the risk of HIV infection to the workers and the community along the road.

The author of this thesis has worked in the organization as an assistant project coordinator of the HIV/AIDS prevention and control program for a period of one year. During my entire stay in the organization I happened to notice a few critical problems that seemed to compromise effectiveness of the program such as shortage of human resources and high turnover along with lack of supervision, lack of coordination with other departments and limited knowledge of the program among workers. This thesis will critically review the program in comparison with available literatures and personal experience.

CHAPTER 1: Background

1.1 Geographical Location

Ethiopia is a landlocked country located in the Horn of Africa, bordered by Sudan in the west, Somalia and Djibouti in the east, Eritrea in the north and Kenya in the south. It has a land size of about 1.14 million square kilometres (944,000 square miles) (MOFA, 2010). Ethiopia uses the ports of Djibouti and Sudan for import and export of commodities. The altitude ranges from 4,550 meters above sea level to 110 meter below sea level, but the majority lies above 1,500 meters. The climate is tropical monsoon mainly with topographic induced variations in the low lands and high lands. (FMOH, 2010).

1.2 Population

Based on the population census commission in 2007 the country's population was 73,918,505 of which 50.5% (37,296,657) were male and 49.5% (36,621,848) were female. The national average growth rate is 2.6% annually. Accordingly the population projected for the year 2012 is 84,000,000. The population distribution is different in different regions; the highest being in Oromia region followed by Amhara and SNNPRS region and these regions comprise 80% of the total population. The lowest proportion was in Harari regional state. The population age composition is largely (47%) children younger than 15 years. Another 49% are from age 15 to 64 years and the remaining 4% older than 65 years (CSA, 2012). The majority, young age group is more vulnerable to HIV infection (FMOH, 2007). According to the second Behavioural Surveillance Survey the age range of road construction workers was 15-59 years and from this about 57% were less than 30 years (EMOH, 2005).

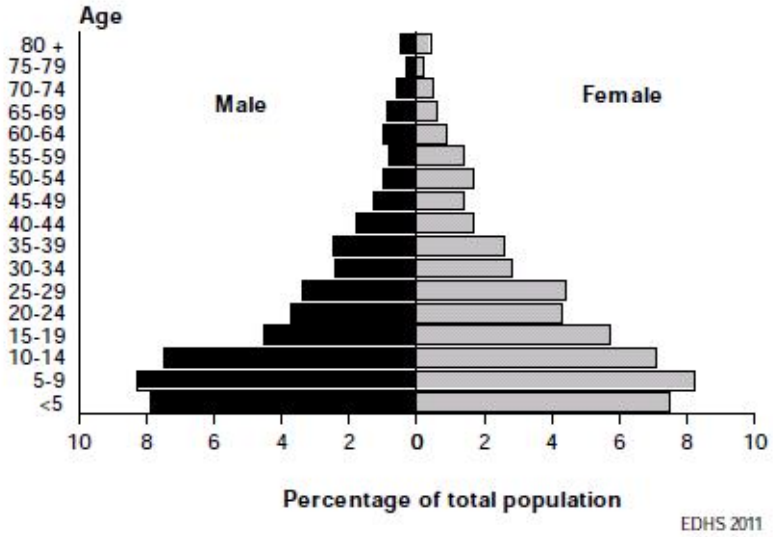


Figure 1 Ethiopian population pyramid

1.3 Administrative structure

The country is governed by a federal system. It consists of nine administrative regions; Tigray, Affar, Amhara, Oromiya, Somali, Benishangul - Gumuz, Southern Nations, Nationalities and Peoples, Gambela and Harari regional states and two city administrations; Addis Ababa and Dire Dawa (CSA, 2012). ERA districts are located in each of these regions and the projects are also spread throughout these regions.

1.4 Economic status

Ethiopia is one of the poorest countries in the world with per capita income of lower than the Sub Saharan Africa average of 1.165 US$ in the 2010 fiscal year. However, in recent years Ethiopia has been reported to be one of the countries with reasonable economic growth; in 2011 the GDP per capita was 374 US$ (World Bank, 2012a).

Currently Ethiopia has registered a rapid economic growth. The growth rate of GDP during 2003/04-2008/09 was about 11.2%. This economic growth could be explained by different factors including the improvements of infrastructure like, roads, telecommunications and the energy sector (ADBG, 2010).

1.5 Education

In general the Ethiopian population is less educated. 38% of males and 52% of females have never attended school. There is different primary education attainment in urban and rural areas. In urban areas 85% of males and 72% of females have some type of education whereas the proportion in rural areas is 56% of males and 42% of females (CSA, 2012).

1.6 Health status

The health indicators show an under five mortality rate of 88/1,000 live births and a maternal mortality ratio 676 per 100,000 live births (CSA, 2012). The average life expectancy is 56 years in general (WHO, 2008). Communicable diseases are the major health problems in the country. The top ten diseases that cause mortality include lower respiratory tract infection, HIV/AIDS, perinatal conditions, diarrheal disease, tuberculosis, measles, cardiovascular disease, ischemic heart disease, malaria, and syphilis (CDC, 2010).

1.7 HIV/AIDS in Ethiopia

The first evidence of HIV infection in Ethiopia was detected from a stored serum collected in 1984 and the first case of AIDS was reported in 1986 (EMOH, 2005). Since then the infection has been spreading and causing significant morbidity and mortality. The estimated prevalence of HIV infection in 2010 was 2.4%. Among pregnant women in the age range of 15-24 years the prevalence was 5.6% in 2005 which decreased to 2.6% in 2011(EMOH, 2012).

There is also a significant difference between urban (7.7%) and rural (0.9%) prevalence. HIV related death among adults was also estimated to be 28,000 in 2010 leaving about 274,000 orphans (losing both parents) (FHAPCO, 2007a). HIV/AIDS is affecting the young age group of the country contributing to 34% of deaths amongst the 15-49 years old population (FHAPCO, 2007b).

1.8 Health system organization and financing

The Ethiopian Federal Ministry of Health is the central governing body in Ethiopia's health system. The ministry develops policies and strategies regarding the health issues in the country. The HIV/AIDS prevention and control Office (HAPCO) is part of the ministry which is concerned with HIV/AIDS prevention and control activities throughout the country.

The country's health system is organized and functions in the following way. The health system is decentralized to the Woreda level. Woredas are equivalent to districts. Service is provided by public and private institutions. The health service delivery system is a four-tier system composed of primary health care units (health centres and heath posts), district hospitals, zonal hospitals and specialized hospitals (FMoH, 2010). There were 195 hospitals, 2,689 health centres, 14,416 health posts and 1,299 private clinics in 2008/09 (MoFED, 2010). Access to health facility is limited; there are about 25,000 people per primary health care facility (WHO, 2005). In addition the distance from the health facility could affect accessibility; about 30% of households live more than 10 kilometres away from the health facility (Wamai, 2009). Though 10 kilometre is still far to ensure access so if we take 5 kilometre, according to a study which presents a method of measuring geographic access to health facilities estimated walking in a flat surface as 5 kilometre per hour (Ray,2008). With this measure the proportion of households with limited geographical access will be more than 30%.

The health system is financed from four sources; government, donors, non-government organization and household (out of pocket). The health expenditure per capita is US$ 4.1 which is far below the minimum WHO estimates (US$ 34). 3.83% of GDP is spent on health which is far below the Abuja declaration (15%) (FMOH, 2006). 40% of the total health expenditure is from private and out of this, 80% was out of pocket expenditure in 2006 (WHO, 2009).

There is shortage of health professionals in the country. The national health workers per 10,000 population is three which is less than 23, the minimum rate set by WHO (WHO, 2012). In order to improve coverage of health services, the government has introduced a health extension program and training health extension workers. The health extension program includes basic preventive and curative health package including HIV/AIDS and other STIs prevention and control activities. (FMOH, 2010)

CHAPTER 2: Statement of the problem, Objectives and Methodology

2.1 Statement of the problem and justification

Road construction workers in Ethiopia are one of the high risk groups for acquiring HIV infection (EMOH, 2005). Though the prevalence of HIV among the road construction workers is not known, it is assumed to be high because of their young age, mobility due to the nature of their work, mostly men (annex 2), and staying in the camp. At that time, HIV/ AIDS was noticed to become a threat for the sector as it affects the young age group between 15-49 years with the prevalence of 4% in 2001 (FHAPCO, 2007a).

The government of Ethiopia is currently focusing on infrastructure development, including road construction (ADBG, 2010). Accordingly ERA has started the Road Sector Development Program (RSDP) in 1997. Up to 2011 the road network has developed from about 26,550 to 48,799 kilometres. This shows how the construction activity has been implemented intensively (EMOT, 2011). In 2011 ERA has reported to have more than 15,000 employees (Annex 2).

The RSDP resulted in the commencement of road construction projects throughout the country with movement of a large number of construction workers towards project sites. In the construction sites, employees live in a camp away from their family where there is usually limited recreational facility other than local bars and restaurants. About 98% the construction workers are young men with a mean age of 30 years (ERA, 2004a).

Mobility is identified as one of the factors which facilitate the spread of HIV infection in a study conducted by Parker and his colleagues. They have reviewed literature from developing countries to identify structural and environmental factors such as economic development and poverty, mobility including migration and seasonal work, which could affect HIV spread (Parker, Easton and Klein, 2000).

Road construction involves migrant workers and seasonal works, and also brings changes in the economic situation of the areas where construction activities are carried out. The presence of Chinese and Korean contractors who have no information about HIV and HIV prevalence in Ethiopia could also be a problem in spreading HIV (Lema, Riverson and Lewi, 2008). According to Lema's report there is language barrier among the Chinese contractors which needs specific attention in controlling HIV spread. The presence of these foreigners could be considered as predisposing factor to HIV infection for their workers and the roadside communities especially if they come from high HIV prevalence areas and also for the foreign workers if they came from low prevalence areas.

However, in Ethiopia there is no study conducted regarding HIV/AIDS among road construction workers and the roadside communities which can show the prevalence among these groups. A study conducted in Asia at different road projects also has shown how the road construction significantly contributes to HIV infection in the community (Hus, 2001). Overall documented HIV cases for Guangxi of China in this study jumped from 10 to 525 within three-year period of road construction in the area.

In 2002, an HIV AIDS prevention project coordination unit was established in ERA. Since then HIV/AIDS prevention and control activities have been carried out at different ERA work sites. As mentioned in reports from ERA and the World Bank in 2001 before the start of the program an assessment was conducted and found that among ERA workers and roadside community. However, since 2004-20011, ERA HIV/AIDS prevention and control program effectiveness and achievements were not assessed.

This thesis will explore ERA workplace HIV/AIDS prevention and control program to answer the following questions: Are the stated goals sufficient to address HIV/AIDS problem of the organization? Is the program achieving its goals? What are the achievements so far? What are challenges, constraints and gaps that affect the program implementation? This will help to give recommendations.

2.2 Objective

2.2.1 General Objective

To critically analyse the Ethiopian Roads Authority Workplace HIV/AIDS prevention and control program in order to give recommendations that will help to strengthen the program performance and ensure sustainability to the program.

2.2.2 Specific objectives

- To identify influencing factors for road construction workers to HIV infection.
- To analyse whether the ERA HIV/AIDS prevention and control program is responding to the HIV prevalence and incidence among the road construction workers.
- To review other countries' experience in road construction HIV/AIDS prevention programs.
- To give recommendations to ERA management and FHAPCO in order to improve the program performance, policies and studies.

2.3 Methodology

In order to answer the objectives of the thesis a literature review was done. This review is done through literature search using search engines of PubMed, Google scholar, KIT library and Scopus. Other websites such as that of the ERA, MOH, WHO and World Bank were also used to collect relevant data on the ERA HIV/AIDS prevention activities to accomplish the objective of the thesis. Relevant English literature on transport sector, road construction workplace HIV/AIDS prevention and control were reviewed. In addition, through e-mail, collection of available documents from the organization such as policy, strategies, and reports were used.

Key words: HIV/AIDS, behaviour change, workplace, construction, transport, road workers, prevention, program, population, health system, health status, mobility, Africa, Ethiopia, peer education, advocacy, posters, leaflets; information, education, communication (IEC) materials; condom distribution, efficiency, effectiveness. The key words were used in combination to limit the number of articles to reach needed information. The combination of the words was done mostly using the connector AND.

2.4 Conceptual framework

In order to guide the analysis the conceptual frame work was adapted from EC, (2005) "Evaluation of EU activities evaluation frame work" and WHO, (2009) "A guide to monitoring and evaluation for collaborative TB/HIV activities". The EC framework includes the components of program cycle starting from identification of needs, problems and issues, the objectives, inputs, outputs, results and global impact. The WHO guideline is partly similar to that of the EC but in one hand it does not include the needs, problem, and issue and objective. On the other hand, it additionally contains the context, factors that are external to the program.

The framework is therefore adapted in a way that the needs, problem and issues, and the objective were incorporated into the WHO framework which has the context. Then, from the World Bank a good practice note on HIV/AIDS in the work place, the recommended three initial steps to start a workplace HIV prevention program (identifying the problem and the risk for the organization, identifying on-going initiatives, resources and stakeholders, and collaboration, partnership and integration) were also included under needs, problems and issues and input (World Bank, 2002).

The additions from the World Bank were done because the component under the needs, problems and issues in the EC framework did not include the organization problem and risk which is important for the workplace program to address. Similarly, the components under input from WHO framework did not include identifying on-going initiatives, resources and stakeholders, and collaboration, partnership and integration which are important inputs to be considered since HIV is not the organizations problem only. The framework will be used to identify the ERA program components step by step and the analysis will be done regarding relevance, efficiency, effectiveness, utility and sustainability.

2.5 Components of the framework

Explanation of the framework components:

Needs, problems and issues of the target population and nature of the problem and organizational risk.

Objectives: gives the foundation for the whole review by providing the direction the program is aimed to reach (EC, 2005).

Inputs: are available resources in order to produce output. This includes policy, human resources, money and equipment (EC, 2005). In addition, identifying stakeholders, on-going initiatives, integration and partnership are included.

Process: is the program activities; including training, management, logistics, and IEC/BCC activities (EC, 2005).

Output: is the result or product at the program level such as service delivered, knowledge, and service use (EC, 2005).

Outcome: is the result at the target population level, such as safer practice, condom use (EC, 2005).

Impact: it is the ultimate effect of the program in long term (EC, 2005).

The analysis will be done with respect to relevance, effectiveness, efficiency and sustainability.

Relevance: the extent to which an intervention's objectives are pertinent to needs, problems and issues to be addressed (EC, 2005).

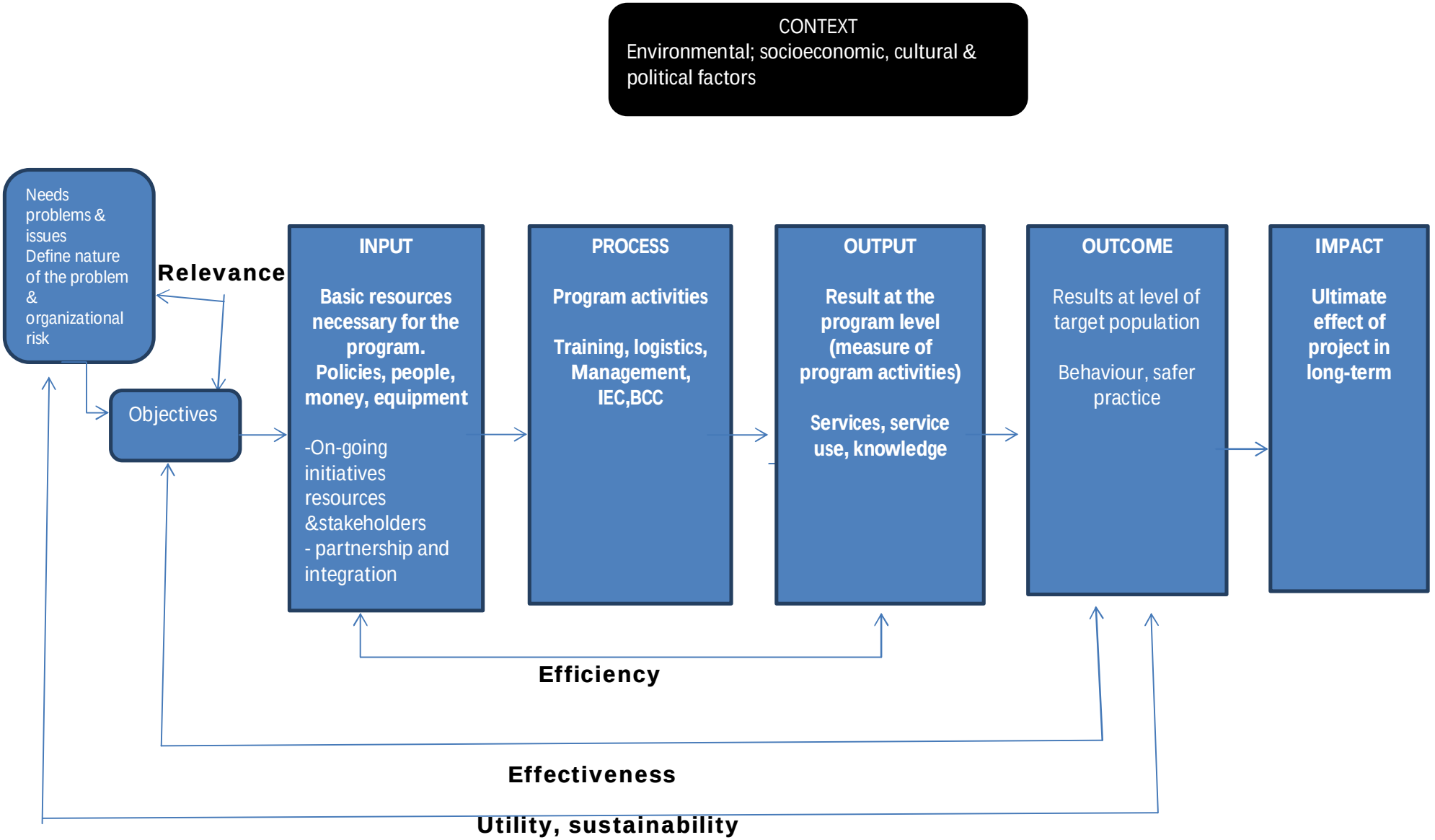
Efficiency: The extent the desired effects are achieved at a reasonable cost (EC, 2005).

Effectiveness: The extent to which objectives set are achieved (EC, 2005).

Utility: The extent to which effects correspond with the needs, problems and issues identified (EC, 2005).

Sustainability: The extent to which positive effects or outcomes are likely to last after an intervention has terminated (EC, 2005).

Contextual factors: external to the program that affect the program implementation such as environment, culture, socioeconomic and political factors (WHO, 2000)



Source, WHO, 2009, EC, 2005 & World Bank, 2002, adapted by author

The thesis will critically review Ethiopian Roads Authority HIV/AIDS prevention and control activities from 2004-2011. Chapter Three will present the brief background information about the countries HIV/AIDS prevention activities and the beginning of the work place prevention activities; Chapter Four will present analysis of ERA's HIV/AIDS prevention activities using the conceptual framework; Chapter Five will analyse practices from other countries; Chapter Six will present the discussion and finally Chapter Seven the conclusion and recommendation is presented.

2.6 Limitations of the study

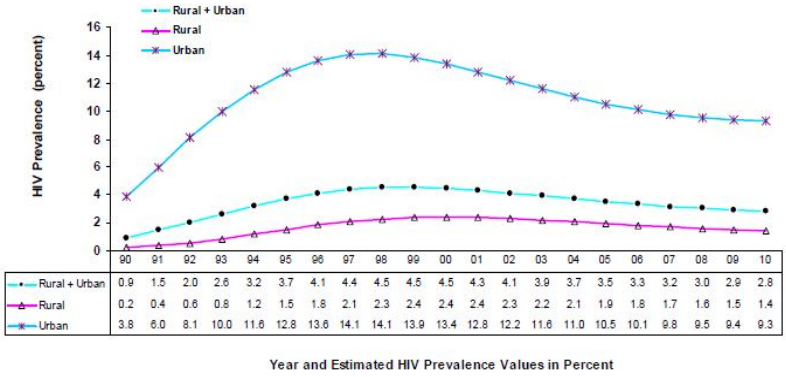
Limitations of the study include; limited data on Ethiopian road construction workers and HIV AIDS, lack of data on the ERA HIV/AIDS prevention and control program on result and impact. There is no available data on the prevalence of HIV among road construction workers. Since the author is part of the organization there may be bias in analysing information from the organization.

CHAPTER 3: Historical background of HIV prevention and control activities

This chapter looks at the background of the multi sectoral response to combat HIV/AIDS in Ethiopia.

Ethiopia started HIV/AIDS prevention and control activities in 1985; one year after the first evidence of HIV infection was detected in the country. A National task force was established to plan and implement prevention and control activities focusing on information, education and communication, condom promotion, surveillance, patient care, and expansion of HIV screening laboratories in health institutions. This program was implemented up to 1996. However, the interventions were not effective enough in limiting the spread of infection and one of the reasons identified there was not involvement of the community and other sectors (FHAPCO, 2007b).

HIV affects the working age group and prevents them from being productive. This will also affects income and family savings which through time could affect the country's per capita income (ILO, 2003). As the prevalence continued increasing, the devastating socioeconomic impact of HIV/AIDS was recognized and it was noted that HIV is not only a health sector issue (Parker, Easton and Klein, 2000).



	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Rural + Urban	0.9	1.5	2.0	2.6	3.2	3.7	4.1	4.4	4.5	4.5	4.5	4.3	4.1	3.9	3.7	3.5	3.3	3.2	3.0	2.9	2.8
Rural	0.2	0.4	0.6	0.8	1.2	1.5	1.8	2.1	2.3	2.4	2.4	2.4	2.3	2.2	2.1	1.9	1.8	1.7	1.6	1.5	1.4
Urban	3.8	6.0	8.1	10.0	11.6	12.8	13.6	14.1	14.1	13.9	13.4	12.8	12.2	11.6	11.0	10.5	10.1	9.8	9.5	9.4	9.3

Source, FHAPCO,2007b

Figure 2: HIV prevalence of adults in Ethiopia

Therefore, in 1998 a comprehensive HIV/AIDS policy was approved that has led to preparation of the national HIV/AIDS strategic framework (FHAPCO, 2007b).

The policy provided direction to the multi-sectoral and multi-partner HIV prevention and control program for which Ethiopian government requested support from the World Bank. As a result implementation of World Bank funded prevention and control activities in selected sectors like the Ethiopian Roads Authority.

In 2000 the National AIDS council was established. It was chaired by the president of Ethiopia and members included ministries, regional heads of states, civil society, religious leaders, NGOs and PLWHA. This led to establishment of the HIV/AIDS prevention and control office (HAPCO) in 2002 replacing the council. In 2003 a multi-sectoral response to HIV the epidemic was started to address the direct causes and underlying risk factors (FHAPCO, 2007b).

The components of the program were capacity building of public and private institutions, expanding government multi-sectoral response, expanding the response of communities, NGOs and the private sector to mitigate the epidemics, and project coordination and management (Okubagzhi and Singh, 2002).

In implementing the multi-sectoral response, 28 government organizations including the Ethiopian Roads Authority established the HIV/AIDS task force. The Ethiopian Roads authority also included HIV/AIDS interventions as part of the contractual agreement with road contractors and started to expand HIV/AIDS interventions among its regular employees and work camp (Okubagzhi and Singh, 2002).

CHAPTER 4: HIV/AIDS prevention and control program in Ethiopian Roads Authority

ERA HIV/AIDS prevention and control activities were started with the establishment of a task force in 2001 followed by the establishment of co-ordination unit in 2002 (ERA, 2010A).

Until 2004 when the baseline survey was conducted and the strategic plan and the policy were put in place, it had no clear and measurable objectives and activity plan to direct the implemented activities.

This chapter will analyse ERA HIV/AIDS prevention and control program using the conceptual framework.

4.1 Relevance of the ERA HIV/AIDS prevention and control program

The relevance of the ERA HIV/AIDS prevention and control program will be analysed to which extent the program objectives were relevant to the needs, problems and issues identified.

4.1.1 Needs, Problems and issues, nature of the problem and organizational risk

- **Needs, Problems and issues**

Ethiopia is member state of ILO and ratifies 21 international labour conventions including occupational safety and health convention (ILO, 2010). Regarding HIV prevention at the workplace, ILO put 10 key principles in the code of practice, one of the key principles in is '*recognition of HIV/AIDS as a workplace issue'* (ILO, 2011).

Most of ERA employees are young; also they are part of the community so ERA workplace HIV prevention and control programs will contribute to the overall effort made to reduce HIV infection. In addition, with regard to jobs that require mobility, the resulting separation from the existing socio-cultural norms in a more stable community results in increased risk of exposure to HIV/AIDS (IOM, 2006). A respondent in the baseline survey conducted at ERA work places mentioned that staying away from the area where they usually live will liberate them to do anything they don't dare to do, such as having multiple sexual partners (ERA, 2004a).

Though this is the situation of the road construction workers that could put them in the higher risk of acquiring HIV infection, while planning for the intervention their need should also be identified and included in establishing and implementing a program. In the ERA HIV/AIDS prevention program, the needs of the workers have not been assessed during the program planning.

However, identifying their need would help to put intervention activities which would respond well for their problem. Information from personal communication with a construction worker during my stay in the organization tells "*our problem is lack of alternative recreational facility, makes us go to bar and sex workers*". Even though this claim could not be representative to all workers, it still shows the fact that they have different needs from the implemented activities which could reduce their risk to HIV.

- ***Define the nature of the problem and the organization's level of risk with respect to HIV/AIDS***

Defining the problem and determining the extent of risk is helpful to know the extent to which organization is affected by the infection. Also at this level the situations that put the employees at risk in relation to their work environment are determined. Information obtained at this stage can also serve as a baseline for monitoring and evaluation of the implemented interventions. However, ERA HIV/AIDS prevention and control program started before the formal assessment of the problem and the extent of risk.

A survey was conducted in 2003 to assess HIV/AIDS prevention knowledge, attitude and practice of ERA staff and surrounding community. The findings show that about 80% of the workers and 68% of the roadside community know that using condoms in all intercourse could prevent HIV infection (ERA, 2004a). The construction workers know better about condom than the road side community. The knowledge of ERA workers regarding condom use looks similar to the male general population proportion which is 82% of men have the right knowledge, as majority of ERA workers were men. The proportion of women in the general population with the right knowledge regarding condom use were 56% which is very low when compared to the male from the general population (82%) (CSA,2011).

It was also found in the survey that about 33% of ERA construction workers and 12% of roadside community ever use condoms (ERA, 2004a). The result shows very limited proportion of the construction workers and the community use condoms. 79% of the workers and 90% of the road side community did not have regular partners (ERA, 2004a). The finding of a low proportion of condom utilization and lack of regular partners shows how risky the sexual practice would be. However the proportion of the roadside community without regular partner looks exaggerated as compared to the marital status of the general population were men 55% and women 58% (CSA, 2012). Also the survey did not explain what does “no” mean for the question “have regular partner” it could be they don’t have a partner or they have no regular partner.

The ERA survey also assessed the prevalence of self-reported Sexually Transmitted Infections (STI) in the workers and surrounding community in the past 12 months of the survey. It was 1.7% and 3.7%, respectively (ERA, 2004a). Similarly the Ethiopian DHS of 2011 has found self-reported STIs among women as 4.6% and 4.8% among men (CSA, 2012). Under-reporting is likely in both surveys since they relied on self-reported responses. In addition, there is high tendency to hide in the case of the workers since it is conducted in their work area.

4.1.2. Influencing factors of HIV infection in the Road construction workers of the Ethiopian Roads Authority

In this section the influencing factors of HIV infection among road construction workers such as migration, behaviour and lifestyle in the camp, demographic factors like age and gender, and availability of health services will be analysed.

- **Migration**

Most of the ERA workers are migrants to the road construction sites; often they stay away from their home area for long periods and the resulting social disruption and loneliness could result in engagement in casual sex (ERA, 2005). This migration of workers could also increase the risk of exposure to HIV/AIDS of the local inhabitants where major construction activities with migrant workers are carried out (IOM, 2006). The workers interact with the local community and tend to have sexual partners from the community.

Evidence from a study conducted in Burkina Faso which compares high risk sexual behaviour among mobile and non-mobile population showed that mobile people are more prone to have risky sexual behaviours. In this study 34% of men and 41% of women were reported to have met new sexual partners at the area where they moved. The odds of high risk sexual behaviour was found to be two times as high in mobile women who were much more likely to report transactional sex than non-mobile women. (Kahan, 2007).

A cross sectional study conducted in the rural areas of West Africa to look at the association between mobility and the spread of HIV infection also has shown a positive association due to the practice of high risk sexual behaviours by the mobile population (Lagard, 2003).

Even if the context is different, a study conducted in remote rural area of southeast Asia (Lao PDR) associated with construction of new roads showed the increased risk of HIV and STIs as changes occurred in the community's way of life, such as the growth of cash economy, opening of beer shops with sexual service providers (Doussantousse, 2011).

- **Behaviour and Life style in the camp**

The migration of construction workers to the construction site and establishment of camps naturally creates a job opportunity for the local inhabitants to meet their needs. This includes establishment of local bars, shops and involvement of more sex workers which could lead to wide practice of high risk sexual behaviour.

Living conditions of construction workers depends on the individual project and the type of project (whether it is ERA's or foreign contractor) according to the ERA baseline survey. For example in the road project Harar-Jigjiga-Degehabur, all workers lived outside the camp in about 0.7 to 2km around the campsite. The reason why they did not live in the camp is not mentioned in the survey. And from these project workers, only 24% were living with their family. In another road project, Dubti-Ayisaita, 81% of the workers lived in the camp. The variation in the proportion of workers living in the camp and living with their families shows the importance of situational study to identify the need of each group of workers to make the prevention activities that can fit to the local situation.

When we explore sexual behaviour of the road construction workers in Ethiopia, the finding from the behavioural surveillance survey showed that about 88% (1,239 male and 15 female) of the workers reported being sexually active during the past one year. Out of the above sexually active survey participants, about 24.6% males and 60% of females reported having non-paying non-regular sex partners and about 9% of male had paying female partner (EMOH, 2005). This high risk sexual behaviour increases the road construction workers and the road side community vulnerability to STIs and HIV. According to the ERA baseline survey female workers mostly engaged in clerical work, from the total clerical workers involved in the survey 58% were females and 42% were male. On the other hand, in the mechanic and machine operators 2% were females (ERA, 2004a).

In addition, a small proportion (34%) of the workers had reported ever having used a male condom (EMOH, 2005). The small proportion of condom use was explained by lack of knowledge on how to use and fear of stigma while buying condoms. About 66% of the employees participating in the behavioural surveillance survey reported drinking alcohol regularly and 69% of the workers chew khat (Catha edulis) (EMOH, 2005). In the ERA baseline survey another result was observed regarding alcohol use and khat consumption that are 18% of workers use khat every day and 27% of workers drink alcohol every day or once a week. Those factors will be added to mobility and staying away from the family and the society they know to significantly increase their vulnerability.

Also, the camp situation and the majority being male could facilitate the act of men having sex with men. In the behavioural surveillance survey about 0.4% of men reported having a male sex partner (EMOH, 2005).

The ERA baseline survey also has found a high rate of non-accidental deaths among the workers in specific road projects in the period of 1998-2003 (10 deaths out of 50 workers in Bure section and nine deaths out of 48 workers in Chagni section), though the cause of death was not medically confirmed (ERA, 2004a). Among the young age workers who were working under the above influencing factors for HIV, the cause of these deaths could be AIDS or opportunistic infections.

- **Health service availability**

Currently 2,309 and 743 public and private health facilities are providing VCT and ART services in Ethiopia respectively (EMOH,2012). However, according to the baseline survey conducted by ERA, only about 30% of the construction workers and 7% of the roadside community reported access to VCT services. They have also mentioned scarcity of confidential VCT services and comprehensive care including provision of ART (ERA, 2004a). On the other hand, the behavioural surveillance survey showed that 50% of the workers know where to get VCT service, but only about 24% had been tested and 94% were satisfied with the service (EMOH, 2005). From a study of cluster randomized trial conducted in Zimbabwe, uptake of VCT on the work site is greater than a referral system. For the participating sites, the mean uptake of VCT for on-site service was about 50% while for referral (Vouchers) the mean uptake was about 19% (Corbett, 2006)

4.1.3 Objectives of the program

ERA's report which covers activities 2002-2009 and was compiled in 2010 showed that with the start of HIV/AIDS prevention and control program in 2002, ERA commenced the program with the general objective "to prevent and control HIV/AIDS among its workers" (ERA, 2010A). As seen in the previous chapters, the workers are vulnerable to HIV as a result of the nature of their work which makes the objective relevant. However the dimension seems to be narrow in a way such that the surrounding community is overlooked and the possible overall impact of the program in contributing to the reduction of HIV infection in the country was not included.

Three specific objectives were cited in the program. These included "raise awareness of the economic and social impact of AIDS in the organization work; support national efforts to prevent the transmission; and reduce the impact and counter discrimination and stigma related to HIV status" (ERA, 2010A). The first objective is helpful to get the support of management by increasing awareness regarding the impact of HIV/AIDS on the organization. The second specific objective looks more general which could make implementation and assessment difficult to measure. In general the objectives were weak in relation to the mentioned condition of the workplace.

The above deficiencies were however seen to be improved in the 2004 strategic plan document which has the goal to control and prevent HIV/AIDS in the workplace and enhance health and productivity of the workers that ultimately contributes to effective sectoral performance. The specific objectives are: enhance knowledge on HIV/AIDS and to reduce misconception among ERA workers, road contractors' workers and the surrounding community, promote safe sexual practice among target population, promote positive attitude towards PLWHA, provision of STI and VCT service as well as condom availability and accessibility among the target population, promote care and support services for those PLWHA and promote economic and psychosocial support to orphans and affected families among target population (ERA, 2004c). In addition, all the influencing factors are not taken into consideration such as loneliness and the disrupted social system due to migration. In addition, the objectives are not specific enough to enable measurement of achievements.

Therefore, ERA workplace programs with the stated objective could be said to be relevant partially based on the identified problems and issues related to workers exposure to HIV because the needs, problems and issues of the construction workers were not identified while setting the objectives. ERA workplace program mostly focuses on behavioural change, not on the causes of the behaviour. Therefore, the objectives are not comprehensive enough to respond to the problem as mentioned above.

4.2 Efficiency of ERA HIV/AIDS prevention and control program

The efficiency of the ERA HIV/AIDS prevention and control program will be analysed by looking at the inputs and the resulting outputs.

4.2.1 Inputs

- **Policy**

ERA's workplace policy was developed in 2004 in line with the national HIV/AIDS policy. It was intended to operate in the legal frame work of labour proclamation No. 276/2002. The policy was intended to provide a framework of action for working on HIV/AIDS, create a balance between right and responsibilities of all bodies (workers and management) and promote effective collaboration with community in HIV/AIDS prevention and

control activities. Also, it supports HIV infected employees and helps to eliminate all forms of discrimination in the workplace (ERA, 2004b).

This creation of policy in the organization was considered as a major step towards prevention of the impact of HIV/AIDS on employees, the organization and the society in general. After developing the policy and strategy it was not introduced to all employees of the organization and distributed to all work areas in order to facilitate the implementation.

- **Partnership and integration**

A partnership was established with GTZ and World Learning. GTZ (German Technical cooperation) were providing support to improve selected ERA camp facilities, vending machines for condom distribution and assist in production of leaflets in three different local languages. World Learning Ethiopia is an international NGO which collaborated in implementation of prevention activities at ERA districts and roadside community for three years from 2009-2011 after signing a memorandum of understanding. The activities included trainings (peer educators, community conversation facilitators), condom distribution, awareness raising activities, posters, leaflets and billboards production and distribution (ERA,2010b). World Learning has been implementing the activities through its own staff and budget.

- **Human resource**
    - **Coordination Unit**

The HIV/AIDS prevention and control coordination unit of ERA was established at the head office level in 2002 (ERA, 2005). This unit was initially staffed with one project coordinator and one assistant project coordinator (ERA, 2004c). However, because of the high staff turnover, most of the time the unit is run by one person. From personal experience, during my stay in the institution there was no substitute in the place of my colleague who had resigned nine months before my departure. I didn't have any person beside me to hand over activities and documents to formally. This could show the level of importance given to the program from the managers.

As seen through the years from the start of Road Sector Development, the number of road construction projects keeps increasing (from about 8,900Km

road construction during RSDP I (1997-2002) to 20,600km during RSDPIII (2007-2010) and a project could cover a distance ranging from 40 km to 400 km) (EMOT, 2001). Accordingly, the work load to the responsible person in the coordination office who is also responsible for the follow up and evaluation of prevention activities increases proportionally. Here comes the need to regularly revise the work load versus the available human resource in the office which has despite remained one for long or setting alternative mechanism. No secretary was available since the establishment of the unit.

- **Anti-AIDS Taskforce**

With the intention to ensure implementation of the prevention and control activities at ERA districts, sections, projects and head office, anti AIDS task forces were established at the respective work sites. The task force included members from the health unit (clinic), labour union, management and workers' representatives (ERA, 2004b).

According to the framework, involvement of different stakeholders in the program would increase efficiency of the program. The task forces seem to be combined from suggested groups, except community representatives. Similarly, involvement of volunteer HIV positive workers could be a good input to take into account HIV positive workers whenever activities are planned in relation to HIV prevention. Even though the committees were organized, their duties and responsibilities were not clear for the members due to limited guidance from the coordination unit.

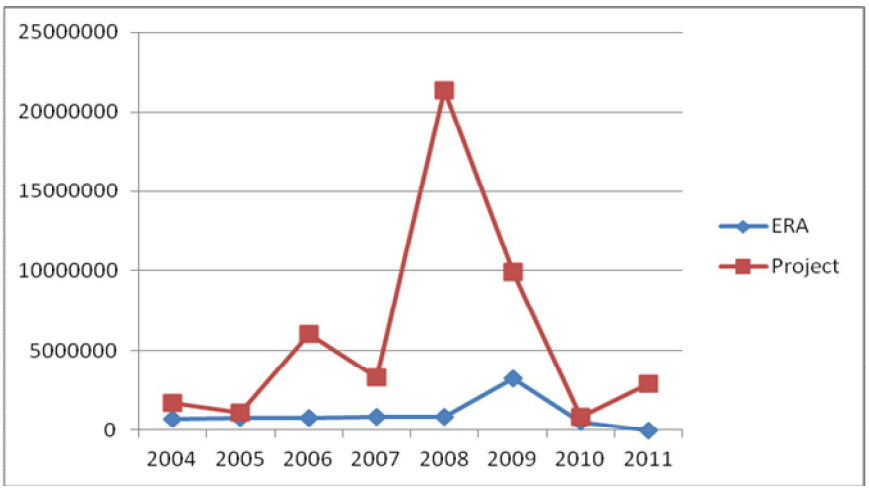
- **Sub contactors for HIV/AIDS prevention program at road construction sites**

At contracted out road projects ERA HIV/AIDS prevention and control program was sub contracted to a qualified firm. However, due to delays in the procurement and assignment of a firm resulted in absence of intervention programs in some project sites (Annex 3). The subcontractors were expected to carry out activities included in the terms of reference (Annex 4) that includes conducting a knowledge, attitude and practice survey on the road construction workers and the roadside community to understand the situation of the specific area, to conduct IEC campaign to the

workers and roadside community, to establish network with local health institutions for VCT and other locally functioning organizations

- **Budget**

The program was planned to be implemented at all ERA districts of the organization (10 in number and located at different regions of the country) and contracted road construction projects. The source of budget for the program is dependent on the sites. District programs were funded by the organization and projects sites got their budget from the project itself.



Source, ERA 2010, ERA annual report of 2010, 2011

Figure 3: Allocated budget for ERA HIV/AIDS prevention activities

As can be seen from the graph, the budget allocated for this program has been increasing through the years up to 2008 then shows a decline in 2009. The increase up to 2008 could result from the newly started projects. The decline in 2009 could be due to completion of construction projects and not assigning subcontractors to the newly started road construction projects or reduction in budget allocation due to declining emphasis to the program. On the other hand, the budget allocated from ERA is very minimal throughout the program implementation years; this could indicate that the program implementation at ERA work areas such as districts and section is limited. The NGOs were implementing in ERA but the budget is not included here because it was not found. The NGOs were implementing in ERA but the budget is not included here because it was not found.

- **Condoms**

Condoms were made available by taskforce members and subcontractors through different outlets which are considered convenient for the workers to take any time, keep in the toilets, work areas, and lounges.

- **IEC materials**

Posters, leaflets and billboards were made available from HAPCO, and ERA produced 10,000 leaflets in three main local languages with the help of GTZ. In 2010 World Learning Ethiopia produced leaflets, posters, billboards and T-shirts (ERA, 2005).

- **On-going initiatives, resources & stakeholders**

HIV/AIDS is not a problem of the organization only. Interventions involve communities and other organizations such as health institutions (World Bank, 2002). Therefore, collaboration and involvement of stakeholders could be taken as input for the program. Identification of available services will also help to prevent duplication of efforts and could also help to increase efficiency. The program identified and collaborated with stakeholders including health institutions, donors, NGOs, public and private organizations working on HIV prevention, community based organizations (ERA, 2005).

4.2.2 Implementation process of ERA HIV/AIDS prevention & control program

This section will describe the program process, activities performed in ERA districts, sections and projects.

Capacity building – The Anti AIDS Task force establishment and different types of trainings have been conducted as seen in the Table 2, and these trainings look enough for the program. However, regular advocacy workshops for the managers and the staff were done once for the managers.

Prevention- Awareness raising activities, peer education, IEC materials distribution, condom distribution for construction workers and roadside community, referral linkage for VCT and STD treatment, and community conversation were implemented. According to ILO recommendation these activities are sufficient for work place HIV prevention program (ILO, 2007). However, studies suggested that in addition to the behavioural change

strategies biomedical such as ART, STI treatment, testing must be available, which ERA is not providing (Coats, 2008). Though referral linkage was there as mentioned in background with the limited health service coverage, availability is still limited.

Care and support- ERA workers contributed money from their salary and support the people living with HIV/AIDS. This shows limited intervention for workers living with HIV. For care and support other activities such as palliative care, psychosocial support, treatment and prophylaxis for opportunistic infection could be included.

Monitoring and Evaluation- monitoring and evaluation is the responsibility of the coordination unit. Monthly reports were received from all ERA sites implementing HIV/AIDS prevention and control program for review, feedback and compilation. Also the coordinators conducted field visit supervision of implementing sites. However, formal evaluation of outcomes were not done, though some outcomes were reported achieved up to 2005 in World Bank report by Lema (Lema, Riverson and Lewi, 2008) and an assessment of ERA HIV/AIDS prevention and control activities (ERA, 2005).

4.2.3 Outputs of ERA HIV/AIDS prevention & control program

- **Coordination unit**

The ERA HIV/AIDS prevention and control program coordination unit reviewed reports monthly that are sent to the unit from implementing areas and provided feedback. Reports from implementing sites were not regular and timely and also the field visit conducted from the coordination unit within one year in 2010 showed that there were five sites out of 60 sites to be visited (10 districts and about 50 road construction projects).

With the available manpower the unit is performing tasks in low efficiency, such as report compilation, documentation and follow up could be done more efficiently. Here the problem looks like with lack of continuation of work due to the high turnover and handing over is not done to the right person. However the field visits could be said not efficient because there was no improvement in performance after the visit and there was no follow up from the coordination unit.

- **Anti-AIDS task force establishment**

A total of 20 Anti-AIDS committees were established. Each committee has five members with three male and two female members. When compared to the number of worksites, 10 districts, about 50 road projects, these 20 anti-AIDS committees are not enough; more than 40 work sites did not establish the committee.

As mentioned in ERA baseline survey, the taskforces were not functional or performed limited duties such as distribution of condom and posters (ERA, 2004a). The reason for this was also found to be lack of capacity and support from the coordination office and time constraint to perform the program activities which are taken as additional. This shows that while establishing the committees they were not provided with the needed resources, such as time, materials and training. Also they are not being provided enough information on the program implementation. The other reason was their commitment and willingness to perform the task and to overcome the obstacles. The task forces can be said to be not efficient since they are not performing their tasks as expected.

- **Subcontractors assignment for HIV/AIDS prevention and control activities at contracted road projects**

Once the road construction work was contracted then a subcontractor was also hired to perform HIV/AIDS prevention and control activities. The HIV/AIDS prevention activity budget was included in the project cost. Procurement and assignment of the subcontractor was done by the ERA procurement office, without involvement of the HIV/AIDS prevention and control unit. Due to limited information flow between the two offices (the procurement and the HIV/AIDS prevention unit) the unit had no information when new subcontractors were assigned. This poor communication affected the follow up from the prevention unit to the project sites.

The information regarding the subcontractors which is currently available was collected from supervising engineers willing to give the information, based on the informal information from former colleague. Based on the available data from about 50 road projects, 39 were sub-contracted. Among these, 16 road projects are not implementing the program due to different reasons; mostly disagreements between the contractor and sub contactor.

From the other 23 road projects with subcontractor implementing the program, 12 sent reports regularly (Annex,3).

Therefore, subcontractors assignment, follow up and performance can be said to be not efficient. The subcontractors were not assigned in time, at the start of the project while the construction workforce was mobilizing to the area is appropriate time to gather information about the situation of the local community and conduct the KAP survey in order to revise activities accordingly and start the implementation. Also the poor information flows between the units' compromises the follow up to replace or solves the problem of the assigned subcontractors that are not functioning.

- **Advocacy workshop**

The workshop was conducted for ERA top managements; it was organized nine times before 2004 (between 2002 and 2004) (ERA, 2005). Participants were 100 men and 50 women management personnel. At that time it could be efficient when we see the progress made in the HIV/AIDS prevention program with the conduct of baseline survey, development of policy, and strategy. However, after 2004 there is no reported advocacy workshop and those trained managers may not stay in their position long. For the program functioning about 10 years, the managers who were trained at that time may not be there any more to assist the program. With time the efficiency of the workshop could reduce.

- **Awareness raising activities**

It has been conducted in the form of drama, testimony by people living with HIV, and celebration of the World AIDS day. The celebration of World AIDS day has been carried out in all districts and projects that are with sub-contractor for the prevention activities (ERA, 2010A). The available reports did not include the frequency of the activities within a year so it is impossible to say whether the activities were enough or not. World AIDS day is celebrated once in a year and providing information once a year is not enough for raising awareness.

Table 1: ERA workers participated in awareness raising activities

Year	2004	2005	2006	2007	2008	2009	2010	2011
No of participants	11,000	6,000	7,000	No data	4000	5000	33,000	4,000

Source: ERA, 2010A, annual reports of ERA 2010, 2011

The number of participants decreased from 2004 to 2008 and started rising from 2009, with the number of ERA staff these trainings may not cover all employees (around 12,000 in 2004, and 15,000 in 2010). In 2010 it suddenly reached 33,000 which is more than the total ERA staff; this could result from inclusion of community who participated in the awareness raising activities or attending twice. The absence of data in 2007 may be either because no awareness raising activities were performed or because data was not available.

With the available information the awareness raising activity could be said efficient but information regarding roadside community is not mentioned which could compromise efficiency.

- **Trainings**

Training of peer educators was the major activity which was carried out also VCT training, community facilitators trainings were given form 2004 to 2011.

Table 2: Number of Trainers from ERA staffs

No	**Type of Trainings**	**No of participants**	**Year**
1.	Peer Educator training	156	2004
	VCT training	15	
2.	Peer Educator training	90	2005
	VCT training for Health Workers	15	
3.	Refreshment for Anti-AIDS Committee	30	
	Peer Educators training	197	2007
4.	Peer Educators training	35	2008
5.	Community conversation facilitators training	40	2009
	Peer Educator training	379	
6	Training of trainers for Peer Educators	11	2010
	Peer Educator training	132	

	Home based care for community members	40	
	Community conversation facilitators training	193	
	Training on comprehensive condom programing, data collection and reporting	29	
	Modified community conversation facilitators (from school students)	40	
7	Peer Educator training	122	2011
	Training of trainers for Peer Educators	19	
	Community conversation facilitators training	91	
	Modified community conversation facilitators (from school students)	75	
	Training on mainstreaming and leadership	26	
	Training for people living with HIV/AIDS	7	
	Training on project design and implementation	20	
	Resource mobilization training	17	

Source: ERA, 2010 and annual report from 2010 and 2011

Peer educators are workers from the same workplace or department as the target group who get training on facilitation giving information about HIV/AIDS (ILO, 2007). As seen from the table, from 2004 to 2010 there were about 1,076 peer educators trained from different group workers such as mechanics, labourers, secretaries, and drivers. With the current total number of staff (about 15,000 in 2010) the figure looks sufficient (1:15). According to the UNFPA standards of peer education one peer educator can have a group with 25 members is possible (UNFPA, 2005) and a study which systematically review peer education in developing countries stated that peer education is sharing of information in a small group or one to one (Medley, 2009).

According to the UNFPA standards of peer education, one peer educator can have a group with 25 members (UNFPA, 2005). A study which systematically reviewed peer education in developing countries stated that peer education is sharing of information in a small group or one to one (Medley, 2009). In addition, their functionality should also be taken into consideration. However, there is no data which shows how many of them are

still functional and there is a possibility that not all trained peer educators participate in conducting peer education sessions due to different reasons.

From the above table the number and type of trainings became more in 2010 and 2011; this is the period when World Learning Ethiopia, an International NGO started functioning in ERA districts in 2009. However, still there is no data that show how many of the trained staff were functioning or implementing their training. There was no follow up mechanism to see if the trainings are useful or not.

For community conversation the number of trained facilitators rose from 40 in 2009 to 91 in 2011; similarly it is not possible to know how many of them were functional and also the number of the target community is not clear for comparison.

Therefore, with the available input, the outputs look efficient since most of the trainings were from the partnership that ERA established. Also more information is needed for complete judgement.

- **Distribution of condoms**

Increasing numbers of condoms were distributed in the year from 2004-2011. Table 3 shows the number of condoms that were made available in the years. From 2004 to 2008 there was increase in distribution except 2007 which was similar to 2006. Then from 2009 the distribution was fluctuating, less in 2009 and increased in 2010 and again reduced in 2011.

Table 3: Number of condoms distributed to ERA workplaces

Year	Number of condoms distributed for ERA workers
2004	65,000
2005	120,000
2006	150,000
2007	150,000
2008	375,262
2009	149,815
2010	1,229,811
2011	151,483

Source: ERA, 2010A, ERA, 2010 & annual report from 2010&2011

Estimation of condom distribution is dependent on the demand. In a study which has assessed the cost of HIV prevention and control activities in a construction work place, it has calculated the amount of condoms required as 10 condoms per person per month (McGreevey, 2003). When it is calculated with this estimation, the number condoms to be distributed in 2010 for the ERA workers will be about 1.5 million and it looks ok but and this does not consider the community at road construction projects. The fluctuation in supply could result in shortages. Also only the number distributed is shown and not their utilization. Therefore the condom distribution activity could be said limited efficient.

- **VCT**

As seen in the above section, 15 ERA workers got VCT training in 2004. VCT service was started at the ERA head office clinic in 2005. The numbers of people tested were 442 in 2006, 54 in 2007, 600 in 2008 and 624 in 2009. The uptake was increasing each year except in 2007; it could be a result of staff shortage or testing kit unavailability. After 2009, the service was interrupted but the reason was not explained in any of the reports. At the road projects and districts the local health institutions were used for VCT service. According to McGreevey's estimation; by taking 2% HIV prevalence of the general population, 6% annual VCT uptake could be taken as efficient for ERA workers (McGreevey, 2003). The service is not efficient. And since 2009 the service has no longer been available.

- **Distribution of information, education and communication materials**

Information regarding HIV/AIDS could be transmitted through different communication means. Table 2 shows the type and number of IEC materials used in ERA for that purpose.

Table 4: IEC/BCC Materials distributed at ERA's work place

No	Types IEC materials	No of Materials	Year
1.	Posters	1,000	2004
	T-shirt	500	
	Stickers	1,000	
2.	Leaflets	57,505	

	Posters	500	2005
	Stickers	1,000	
	Mini-media Materials	4	
	Billboard	5yhi, hi	
3.	Ribbons	2,144	2006
	Umbrellas	45	
	Mirrors With HIV messages	6	
4.	Audio-Video material for Mini Media	10	2007
5.	Brochures	30,585	2008
	Mini-media Materials	10	
6.	Brochures	29,000	2009
	T-shirt	260	
	Stickers	250	
	Posters	86	
	Billboard	7	
7	Leaflets	30,072	2010
	Posters	1,550	
	Brochures	1,480	
	News papers	296	
	Educational Radio cassettes	53	
8	Leaflets	18,471	2011
	Posters	2,432	
	News papers	23	
	Educational Radio cassettes	43	
	Billboards	16	

Source: ERA 2010, ERA annual report 2010, 2011

From the table, each year the number of distributed materials keeps fluctuating and the types were also different each year. This shows inconsistency and insufficient distribution of the materials. Also most of the materials were obtained from partner organizations, such as HAPCO; the materials were developed to the general population so the message may not directly relate to road construction work which could also compromise its efficiency.

- **Care and support**

ILO recommends possible care and support activities such as palliative care, treatment of opportunistic infections, support treatment adherence and healthy living, and adjustment to task and work conditions (ILO, 2007). In ERA so far it is only the financial support for supplemental nutrition. For the purpose of financial support, all ERA employees contributed 1% of their salary (ERA, 2010A).

The support was started in 2006 with 50 HIV positive workers with 100 Birr (local currency) per month. A report which covers activities from 2002-2009 shows an increase in the numbers of workers who get this support every year and it reached 157 in 2007, 262 in 2008 and 280 in 2009. However, the 2010 annual report shows their number to be 134. This miss-match could be a result of dropping out from the program or documentation problem.

In 2010 the workers who were getting the support requested for increment because the amount was not sufficient with the current cost of living. Therefore this minimal amount could also be the reason for the dropout. In 2011, the number of staff who got the support decreased to 130 which could be due to death or drop outs, and the amount of money increased to 200 birr per month.

As mentioned in the 2010 report regularity in the payment of the care and support money was a challenge. Also in the annual report of 2011 those who came for support disclosed their status which shows there is no confidentiality in the care and support system. The issue of confidentiality was mentioned as a challenge in the annual report and that could be the reason for the dropping of the number who got support in 2010 or the minimal amount of money. Therefore the care and support activity can be said to be inefficient, due to insufficient output as a result of poorly functioning system.

- **Partnership and integration**

The partnership with GTZ and World Learning Ethiopia established and contributed to the ERA HIV/AIDS prevention and control program. Reports showed networking with local health institutions, NGOs and Government organizations, and associations. As seen from other outputs, such as

trainings the partnership resulted in improved outputs. However as mentioned earlier the trainings lack follow up and evaluation which could compromise the efficiency.

4.3 Effectiveness of ERA HIV/AIDS prevention & control program

This section will analyse effectiveness of ERA HIV/AIDS prevention and control program by looking at the results and extent the objectives are achieved.

4.3.1 Outcomes/Results

According to the report prepared by the organization in 2005 which covers the period 2002-2004 and a World Bank report the following achievements were stated. Issues related to HIV/AIDS started to be discussed during progress meetings. Activities were included in the contract agreement and bill of quantity (BOQ) which assigns cost for HIV activities with other construction related activities. This could help facilitate smooth and effective implementation of activities. Employees started discussions regarding HIV/AIDS freely and stigma and discrimination of HIV positive workers decreased. Also HIV positive workers got due attention and were assigned on light duties and placed at an area near to their family (ERA, 2005, Lema, Riverson and Lewi, 2008). However there is no evidence which could support some of the above claimed results such as free discussion about HIV and the reduction in discrimination and the assignment of PLWHA in light work.

From the activities done 2004-2009 peer education is the one which is expected to facilitate the most behavioural change. Different studies in different parts of the world have supported and disregarded the role of peer educators in the prevention and control of HIV/AIDS.

A systematic review and meta-analysis of peer education interventions conducted in developing countries to see the effectiveness of peer education found low effectiveness in bringing behavioural change (Medely, 2009). Also a similar finding was seen in a study conducted in South African workplace peer education program (Sloan, 2005). On the contrary, a study conducted in Vietnam, Ho Chi Mine City construction worker peer educators were found to be more effective than the health communicators (individuals outside the working area trained to teach about HIV) for disseminating information,

condom distribution and relatively better retention of peer educators (Population Council, 2003). However ERA's peer education activities were not assessed for how much useful behaviour change was achieved. Though no assessment of outcome is not done, from the previous section it can be seen that the activities' output was not fully efficient which could compromise the effectiveness of the program.

4.4 Utility

The program achievements were not assessed so far. It is difficult to make any judgment that the program is useful to address the identified problems. The vulnerability of the sector was clearly described in the previous sections and the relevance of the program was also discussed. It is impossible to know how well the risks are reduced through this program.

4.5 Sustainability

Sustainability means the extent to which the positive outcomes could last (EC, 2005). In order to analyse sustainability effectiveness should be known first, and the resulted outcomes should be identified. For ERA HIV/AIDS prevention and control program the different types of trainings provided could help in sustainability. However, the outcome of these trainings is not assessed as we see from different studies Medely, 2009 and Sloan, 2005 which showed lower effectiveness of the peer education program so without looking at the effect of the trainings ensuring sustainability could be difficult.

4.6 Contextual factors influencing the program

This section will analyse the external factors which could influence implementation of the program. It includes environmental, cultural, socioeconomic, and political factors.

- **Environmental factors**

Construction project camps are usually situated away from villages or towns. This will limit access of the workers to recreational facility, health facility and other activities. As we can also see from the other chapters, prevalence of HIV in Ethiopia has notable differences in urban and rural settings; with high in urban and low in rural areas. So, the movement of workers to rural area facilitates the spread of HIV from high to low prevalence areas (Oluwoye, 2007).

Most of ERA's road projects are located in remote rural areas in Ethiopia. This situation puts the workers and the communities along the road to similar changes, like opening of local bars and restaurants which facilitate the interaction of community with workers and the workers tend to have sexual partners from the community. In addition, a qualitative study conducted in Ethiopia looking at the AIDS, mobility and commercial sex workers. It has reported a high rate of mobility of commercial sex workers in Ethiopia who are aware of their sero-positive status or with evidences of opportunistic infections and who do not care much about their way of practice (Van Blerk, 2007).

- **Cultural factors**

Cultural norms about sexuality in Ethiopia include no sex before marriage and encourage preserving virginity for girls and allow boys to have sexual activity (Mola, 2008). This cultural norm could help to delay initiation of sex and the possible exposure to HIV and STIs among females.

According to a study which looks at the drivers of HIV and its response, stigma and discrimination could be related to the belief that "HIV is a punishment from God for our sin" (Drivers). Similarly another study showed that HIV is associated with shame and blame (Lifson, 2012).

- **Socioeconomic factors**

As is shown in the background, there is poverty and limited infrastructure development in Ethiopia which makes access to health care and information limited. The low literacy level among women has resulted in economic dependency and un-empowerment (CSA, 2012). This gender issue could have negative effect on the HIV/ AIDS prevention activities because of limited condom negotiation and decision power of women.

- **Political factors**

Ethiopian government recognized the socioeconomic impact of HIV/AIDS and developed national policy and multi-sectoral strategic plan (Okubagzhi and Singh, 2002). In addition in 2012 the government put a national workplace policy which brings commitment of employers, employees and government together (IRIN, 2012). This government commitment provides a suitable environment for workplace HIV/AIDS prevention and control programs.

CHAPTER 5: Road construction Workplace HIV/AIDS prevention program - other countries experience:

A literature search for best practices on HIV/AIDS prevention in road construction sites did not yield results; however, lessons can still be learned from other experiences.

This chapter will discuss experience of a construction company, Odebrecht, in HIV/AIDS prevention at its work sites in Angola and a road construction project in Lao PDR which links Thailand and China. The HIV/AIDS situation and the road construction itself in Angola and Ethiopia are similar though there are certain differences in cultural, socioeconomic and political situations. Similarly while Laos PDR is different in prevalence, cultural, socioeconomic and political situations from Ethiopia, the road construction and migration of workers is similar and lessons can be learned from their experiences.

5.1 Angola

- **HIV/AIDS prevention program at Odebrecht construction**

Angola is currently experiencing increased infrastructure construction after facing civil conflicts for 27 years (1975-2002). Odebrecht construction is one of the foreign companies that are involved in the construction and mining in the country. In Angola as a result of the conflict, health services were affected and unable to provide appropriate services. There was also increased population mobility, family disruption and poverty. In 2002 HIV prevalence of Angola was 5.5% among the adult population (IFC, 2003).

Before the establishment of HIV/AIDS prevention program at Odebrecht construction sites an informal assessment of the situation in the work areas was performed. This assessment found that there prevention activities were functioning in an un-integrated manner. Similar to ERA, the needs of the target population were not assessed for this program.

The Odebrecht HIV/AIDS prevention program was started in collaboration with IFC (International Finance Corporation). The overall goal of the program was “to contribute to the fight against HIV/AIDS in Angola by systematically reaching out to the communities where the company operates”. With this overall objective the company started its HIV prevention activities for the employees and nearby communities (IFC, 2003).

- **Relevance of the program**

The construction sector with workers in the vulnerable age group could be one of the areas considered to establish an HIV prevention program. In addition to their stay away from their families for a long time, the situation in the construction sites such as limited recreational facilities, remote workers camps and availability of bars near the compound, the feelings of loneliness, and isolation could lead them to have partners. Also there was a wrong perception about condoms, which could lead to practice of high risk sexual activities (IOM, 2010).

The HIV prevention program implemented at the Odebrecht construction sites involved workers and surrounding community, and was intended to contribute to reducing new HIV infections. Before the Odebrecht HIV prevention program, there were HIV prevention activities already started at some work areas, but they lacked consistency and integration with the company. The program had been focusing on awareness, prevention and care. However, similar to ERA's HIV/Prevention and control program, the needs of the construction workers were not assessed. Similar to the ERA HIV/AIDS prevention and control program the objectives could not address the needs of the workers that are not identified.

- **Efficiency of the program**

The company got a contract of $280 million from IFC for construction and mining in Angola. From this amount about 0.36% ($1 million) was assigned for HIV prevention activities (IFC, 2003). Management support of the Odebrecht resulted in ratification of the AIDS policy. Adopted monitoring and evaluation system and specific performance levels (outputs) were assigned to measure performance and determine the bonus for the site.

The plan was to reach 7,000 workers and 30,000 people from the community (IFC, 2003). The program involved the construction workers and health staff in the implementation of activities; this helped to minimize the cost for human resources.

There was one focal point person who coordinated activities at five different sites and provided technical assistance. In addition, each site has a team and one coordinator from the staff (from operational management and

medical staff). Different prevention activities were been carried out from 2002 to 2003.

Awareness raising campaign at construction sites through posters and banners, targeted the general employee and women specifically. Condom distribution was also done in the dormitories, clinics, communal areas and at events and accordingly 350,000 condoms were distributed. However, with respect to the number of the target population of 37,000, it would be about nine condoms per person per year, which is a minimum amount. Also, it was reported that all the five sites had VCT services, free of charge and 817 (12%) workers had been tested in one year but if we divided this for the five sites it will be about 163 people per site for one year, which is not enough.

Prevention activities performed in the community level included; celebration of World AIDS Day, the Day of Africa and Carnival, and also 80 peer educators were trained at one municipality.

A partnership was established with an NGO that works with sex workers and a foundation which provide vocational skill training. Odebrecht has assisted the organizations with training of their members on peer education and STIs and HIV transmission and prevention. Odebrecht also made partnership with PLHIV association. The Odebrecht program can be said efficient when looking at the inputs in relation to the output.

- **Effectiveness of the program**

The Odebrecht medical team mentioned that a decrease in the number of STI cases among Odebrecht employees was observed (IFC, 2003). A KAP survey was undertaken to measure the changes. Therefore judgement of effectiveness is difficult to make. But reduction of STI shows a good direction.

- **Utility**

The observed reduction in STIs could be indicator that the program responded to the problem.

5.2 Lao PDR

Lao People's Democratic Republic (PDR) is an Asian country with low HIV prevalence (0.1% in 2006 among the adult population). A road construction project connecting Thailand with China passes through Lao PDR. With the start of the road construction migration of people to the projects sites will increase and as a result of the migration HIV could be spread from the high prevalence areas in China and Thailand to Lao PDR (ADB, 2007).

Similar influencing factors were identified at this road construction site; migration of large number of workers who were mostly men separated from their families. HIV/AIDS and STIs prevention programs were designed with components of awareness raising among villagers and construction workers. The program targeted 76 communities with an estimated 40,000 population (ADB, 2007).

- **Relevance**

Based on the above problem an HIV/AIDS/STIs prevention program was started with the objective of awareness rising and prevention of transmission. Similar to the ERA and Odebrecht HIV/AIDS prevention programs the target population needs were not assessed. However, based on the problem identified the program objectives could be said to be relevant.

- **Efficiency**

The budget allocated for the HIV prevention activities was $430,459 which is 0.36% of the total project cost (ADB, 2007). The implementing NGO had a shortage of staff to perform all the work, and was dependent on the local health authorities' staff. However, the available budget was insufficient for obtaining support from the local health authority. There were 509 peer educators trained from the community and the construction workers.

In condom and IEC material distribution, 88,557 condoms and 34,471 pamphlets, posters, cartoon books, films and T-shirts were distributed. With the estimated 40,000 target population the numbers distributed looks insufficient. IEC materials were produced using Lao Loum language; however, there were foreign workers who could not understand the language. However, IEC materials in the Chinese language were used from the Lao Red Cross society.

The IEC materials were not targeting minority ethnic groups which made it difficult to train peer educators and conduct awareness raising activities.
The peer educators recruited from the local community were difficult to access during the harvesting time. For the construction workers it was difficult to get permission from the contractor during work time to attend training sessions.
There was less coordination between the construction project HIV prevention program and other organizations that were working on the same area. This uncoordinated activity had resulted in overlap of implemented activities, which could cause wastage of resources. This could be a cause of decreased efficiency.

- **Effectiveness**

This program conducted mid-term evaluation, unlike the ERA program, and found increased knowledge. This result could show some effectiveness, however regarding behaviour change there was no information.

- **Utility**

The result of increased knowledge could show that the program responded to the identified problem however, further identification of program effect is needed to see utility widely.

- **Sustainability**

It was an issue for the program. The road project was planned to be completed in 2006 and the HIV prevention program also planned till 2006; however, construction was extended for one more year while the HIV prevention program terminated the year earlier as planned. During this time a shortage of condoms was observed because the program did not establish a sustainable condom supply mechanism. This could show there is issue of sustainability, due to supply shortage sustaining the behaviour could be difficult for the target population.

CHAPTER 6: Discussion

One of the influencing factors for HIV infection among the road construction workers was migration of workers to construction sites. As seen in the other studies also migration to construction sites increased the risk of HIV among the roadside community. The establishment of bars in the construction area will also bring sex workers to the area. As seen in the Van Blerk's study in Ethiopia, sex workers who knew their HIV status have a higher rate of mobility to new areas.

Also migration of workers to an area will facilitate the spread of HIV from high prevalence area to low prevalence areas. In Ethiopia the HIV prevalence of urban areas is higher than rural areas, and most construction workers came from urban areas to rural remote areas of the country. Similarly, the foreign construction companies also bring workers from their country but no attention was given to their origin regarding HIV prevalence whereas it could be a threat for the local people if they come from high prevalence area and there may be for the migrants if they come from low prevalence area. As seen in Lao PDR road construction project, this links the high prevalence areas in China and Thailand to Lao PDR with low HIV prevalence.

Lifestyle in the camp and behaviour of the construction workers are also influencing factors for HIV infection. As seen in the ERA baseline survey different construction sites have different proportions of workers staying in the camps. The camps are usually situated away from the nearby towns or villages. The isolation and the heavy workload made them require relaxation and recreation. However as seen in the case of ERA and Angola construction sites there is lack of recreational facilities in the camps. Most of the time following the camp establishment the local people will open a small bar and restaurants that will avail alcohol and create an opportunity having sex partners and commercial sex. This change in the local community will also increase the risk of HIV infection in the local community. The result of road construction on the local community HIV infection rate is seen in the study done by Hus the number of HIV infected people increases after a three-year road construction project. The ERA baseline survey shows that high proportion of workers reported having non regular partners.

With the presence of these influencing factors it is clear that there was a need for intervention that makes the program objectives relevant. A similar

situation was observed in the Odebrecht and Lao PDR HIV/AIDS prevention programs.

Efficiency of the program was found to be very limited to coordination, awareness raising activities, trainings and partnership development which were able to achieve sufficient outputs.

Monitoring and evaluation in ERA HIV/AIDS prevention program was not efficient. The monitoring and evaluation system in Odebrecht, Angola, was designed in a way that good outputs will result in a bonus which could help to motivate for better performance. Also the management commitment of the organization could be taken as a lesson for ERA. Also from the Lao PRD prevention project a lesson can be learned in the development of the program at project sites: the communities along the road would have different language and culture should be taken into consideration.

Also outcome assessment was not done within 2004-2009. However, according to a report form World Bank by Lema between 2001 and 2003 an increase in knowledge regarding HIV transmission and prevention methods was observed, still there are no evidences to support this claim. The 2003 ERA baseline showed that still there is a knowledge deficit and need for intervention. The Angola Odebrecht and Lao HIV/Prevention and control programs found an increase in knowledge of the workers. At Odebrecht a reduction in STI cases was observed but otherwise there was no evidence of behaviour change in all the three programs.

Effectiveness of the ERA program could not be analysed due to the absence of outcome assessment. Similarly utility and sustainability components were also impossible to analyse due to the unavailability of outcomes. At the Odebrecht Angola HIV/AIDS prevention program, an outcome of STIs case reduction was observed and they were conducting assessment of knowledge to understand the outcome of their program. Also the Lao PDR program conducted an assessment of the program effectiveness and appropriateness found out increased knowledge regarding HIV.

CHAPTER 7: Conclusions and Recommendation

7.1 Conclusion

In conclusion the absence of best practice in the road construction HIV/AIDS prevention and control activities, it was not possible to find better performance. However, there are still lessons learned from the other programs.

The major problems identified were:

- Poor planning without estimation of target population, expected inputs and outputs which causes difficulty in measuring achievements.
- Unclear duties and responsibility for all involved; work areas, task force members, coordination unit, construction sites.
- Unidentified needs, problems and issues of the target population.
- Poor documentation, incomplete information in reports which makes availability of information impossible.
- Ineffective advocacy which causes limited management commitment that could be associated with the limited information about the impact of HIV to the organization, community, and the country in general. As a result of this there is no strong sense of responsibility and accountability from the work sites. Therefore not enough attention is given to the activities which require time. The prevention program is left only for the coordination office that is impossible to be implemented unless all become part of it.
- Poor flow of information and communication between different department cause delay and absence of sub-contractors at project sites, hindrance in the monitoring and follow up of activities.
- Lack of continuous monitoring and follow up of activities and the high turnover of staff in the coordination office could also have a major negative effect in the program implementation.

In all three different programs, the situations in the countries; the prevalence rate, the construction works and the movement of workers necessitate the establishment of the HIV prevention programs. However, the findings showed that assessment of the needs of the target population would make the program better responsive to the need and problem of the target population.

7.2 Recommendation

Intervention

- Involve all concerned department managers and workers of ERA (finance, procurement, and engineering) develop a structure for the HIV/AIDS prevention and control program.
- Improve the care and support program by making it confidential and timely, look for other alternative financial sources and increase the amount this may encourage testing so avail VCT service at work areas through opening VCT centres or organizing VCT service with the local health facilities to come to the work areas.
- Improve documentation using databases in order assist regular follow-up and evaluation.
- Regular monitoring and evaluation system of the program and update. Situations are changed with time and the program should be adopted in line with the existing situation after an assessment.
- Evaluate training programs and improve with the need, and follow up of trainees on their implementation.

Research

- Evaluation of the efficiency and effectiveness of this program needs to be done urgently for subsequent measures.
- Research on needs, problems and issues of the construction workers and revise the program objective accordingly.
- Assess why managers were not supporting the program in the expected level, and assess the quality of advocacy training provided to the managers.
- Study the prevalence of HIV among road construction workers and influencing factors.
- Study the effect of HIV/AIDS and foreign contractors on the local community and foreign employees.

Policy

- Foreign contractors should be included in the prevention program and develop a policy which requires their involvement in HIV prevention activities.

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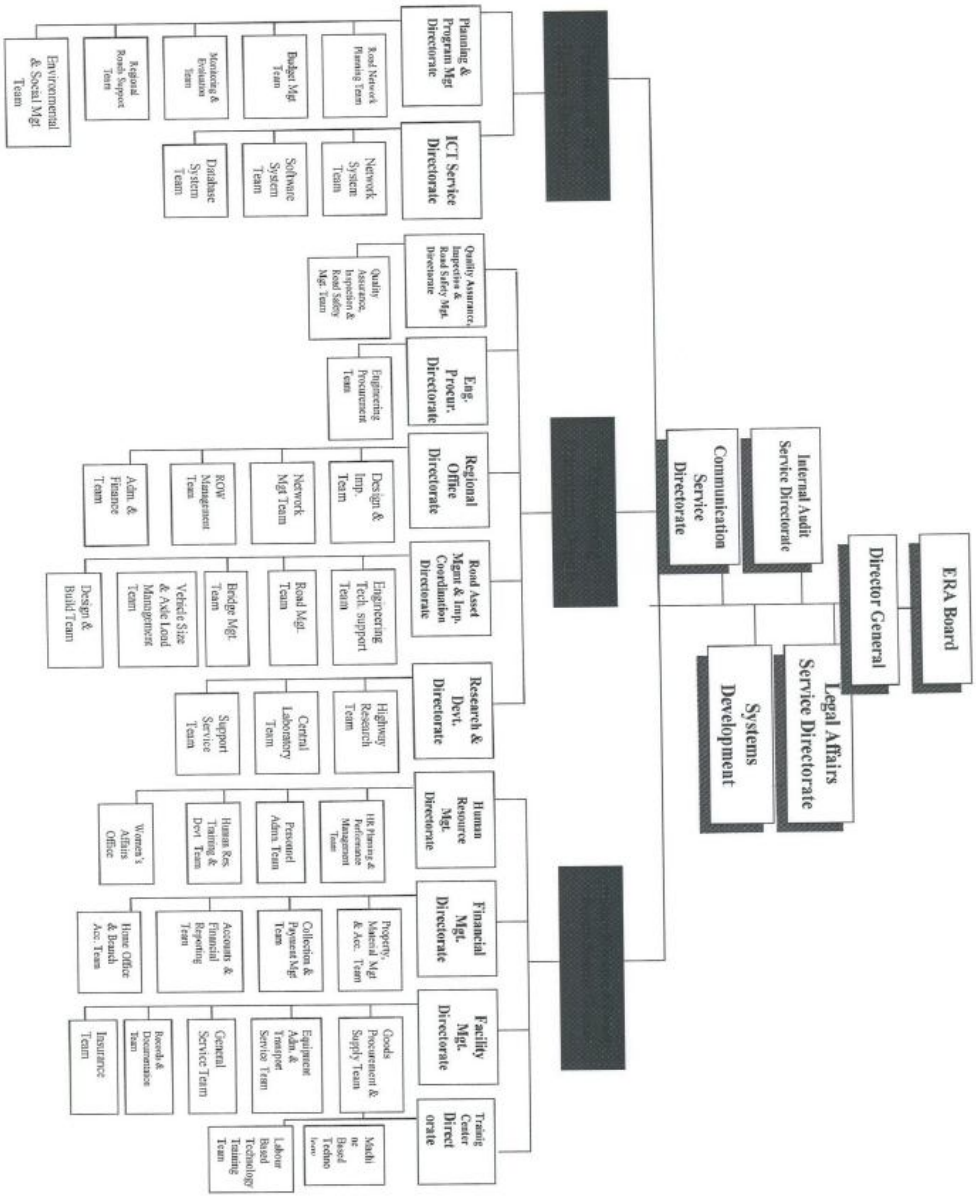
Annexes

Annex 1: ERA organizational structure



Annex 2: Human Resource profile

የኢመባ የሰው ሃብት ኘሮፋይል // ሬጉላቶሪና ኮርፖሬሽን

//ሚያዝያ 2003 ዓ.ም//

1. አጠቃላይ የሰው ኃይል

ወንድ ቋሚ	5964
ወንድ ኮንትራት	6953
ድምር	12917
ሴት ቋሚ	1153
ሴት ኮንትራት	1187
ድምር	2340
የሬጉላቶሪውና የኮርፖሬሽኑ አጠቃላይ የሰው ሃብት	15257

2. ከነዚህ ውስጥ ምደባ ያገኙ፣

በሬጉላቶሪው	1286
በኮርፖሬሽኑ	5481
ድምር	6767

3. ከላይ በተራ ቁጥር 1 የተጠቀሰው የሰው ሃብት በሬጉላቶሪው ተለይቶ ሲታይ

ወንድ ቋሚ	935
ሴት ቋሚ.....	438
ድምር	1373

Annex 3: Road construction projects information

No	Road Project Data								HIV/AIDS projects data Up to June 2010					
	Name of project	contract price	Commencement Date	Completion Date	Financer	Contractor	Consultant	Sub Contractor	Project Price	%of the price from the total contract price	Commencement Date	Completion Date	Disbursment to date	Remark
A	Western Region													
1	Jimma-Bonga	682.102.036,12	21/04/2008	20/02/2011	AfDB&GDE	Keangnam DVT LTD	LEA & CORE	Everyone	1.015.832,22	0,15	24/04/08	20/02/11	493.394,61	
2	Bonga-Mizan	742.938.243,29	20/04/2008	22/02/11	AfDB&GDE	Keangnam DVT LTD	ICT	Everyone	1.015.832,23	0,14	22/04/08	22/02/11	463.292,00	
3	Wacha-Maji	775.628.486,80	25/09/2007	06/06/2008	AfDB&GDE	China W&W corp.	Saba Eng-Arebian	Everyone	1.093.952,87	0,14	25/09/07	25/03/01	858.000,00	
					GDE, BADEA, SFD	Sinohidro	Arabian Consultancy	N/A		0,00				The contractor and the nominated sub contractor could not agree to sign the contract due to less amount of the allocated price
4	Assosa-Kumruk	502.877.507	04/09/2009	04/07/2010										
B	Eastern Region													
5	Hide-Yalo	118.843.932,35	Dec 01, 2006	Nov 13,2010	GOV	TERRA	Tcd Sco	-	-	#VALUE!	-	-	-	The contract has already expired
6	Harar-Jijiga	597.421.785,99	Jan 11, 2006	May 17, 2011	GOV	Hunan Hunda	Pan africa in jv with ArtsTech	NACID	500.000	0,08	Sep 15, 2008	Dec 2010	500.000	Under work
7	Yalo-Didigsala	132.496.185,40	July 01, 2008	Oct 30, 2011	GOV	TERRA	Eng. Zewdie	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
8	Ireti-Afdera	814.847.400,20	Aug 22,2008	Dec 22,2012	GOV	CRSG	Core	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor

9	Ginir-Beredimtu	514.718.515,05	Jun 20, 2008	Jan 20, 2012	GOV	YENCOMAD	HAMDA	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
10	Lab-Gode	573.390.532,49	Jun 16, 2008	Dec 15, 2011	GOV	SATCON	Beza	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
11	Beridimtu-Imi	348.246.666,49	Jun 21, 2008	Dec 19, 2011	GOV	AKIR	DANA	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
12	Imi-Lab	492.706.981	Jun 15, 2008	Dec 12, 2011	GOV	SATCON	Beza	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
13	Semera -Didigsala	392.337.896,00	March 5, 2008	Aug 4, 2011	GOV	SATCON	Eng. Zewdie	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
14	Degehabure-Shekosh	281.562.322,24	Jan 29, 2007	Jan29, 2010	GOV	Own force	Best	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
15	Shekosh-Kebridhar	291.162.655,91	April 1, 2007	Mar 31, 2011	GOV	Own force	Best	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
16	Jijiga-Togochale	289.006.437,53	Oct4, 2007	Apr 13, 2011	GOV	AKIR	ICT	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
17	Denen-Gode	513.982.120,00	May 2, 2006	Jan 6, 2012	GOV	Own force	Beza	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor

18	Kebridehar-Denen	410.868.410,00	May 2, 2007	Jan 28, 2010	GOV	Own force	Beza	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
19	Kebridehar-Shilabo	535.317.470,00	April 14, 2008	July 9, 2010	GOV	SATCON	Beza	-	-	#VALUE!	-	-	-	There is provisional item for this but still not given to sub contractor
Road Project Data								HIV/AIDS projects data Up to June 2010						
No	Name of project	contract price	Commencement Date	Completion Date	Financer	Contractor	Consultant	Sub Contractor	Project Price	%of the price from the total contract price	Comencement Date	Completion Date	Disbursment to date	Remark
	Central Region													
20	Butajira-Gubre	599,026,684.00	Dec 11, 2007	Feb 28, 2012	GOE	Sunshine construction Plc	Highway Engineers & consultants	-	1.147.380	#VALUE!	-	-	-	-
21	Mojo-Ejere-Arerti	414.485.516,15	Feb 12, 2008	Mar 3, 2011	GOE	Yencomad inc.Plc	Associated Engineering Consultants Plc	-	1.867.112	0,45	-	-	-	-
22	Arerti-Gobensa	399.150.542,10	Jun 23, 2008	Jun 21, 2011	GOE	Yencomad inc.Plc	Core Consulting Engineers Plc	-	1.867.112	0,47	-	-	-	-
23	Gindeber-Gobensa	755.409.675,00	Apr 6, 2010	Oct 4, 2013	GOE	Yencomad inc.Plc	Best Consulting Engineers Plc	-	2.262.720	0,30	-	-	-	-
24	Sembo-Shola Gebeya	613.072.806,85	July 01, 2010	June 30, 2013	GOE	Akir Construction	CCCC First highway	-	1.788.777	0,29	-	-	-	-
25	Gedo-Bako	354.350.909,60	Oct12, 2009	Apr 13, 2012	GOE & IDA	China Hyway	DHV	-	651.606	0,18	-	-	-	-
26	Bako-Nekempt	391.047.637,00	Oct 10, 2009	Apr 09, 2013	GOE & IDA	China Hyway	Mouchel Ltd	-	673.555	0,17	-	-	-	-
27	Mena Begna-Lemlem Bereha	637.283.361,83	Dec 22, 2010	Dec 21, 2013	GOE	Sur Construction Plc	Eng. Zewdie Eskider	-	1.150.000	0,18	-	-	-	-
28	Addis Ababa-Taemaber C1	955.538.600,43	Jun 08, 2007	Mar 16, 2011	GOE	China road & bridge corporation	Lea international Ltd	ProPride	681.710	0,07	Oct 01, 2009	Feb 28, 2011	443.740	-
29	Addis Ababa-Taemaber C2	594.251.798,30	Jun 21, 2007	Apr 20, 2011	GOE	Sinohidro Corporation	Lea international Ltd	ProPride	497.410	0,08	Apr 14, 2010	Mar 14, 2011	333.890	-
30	Magna-Mechara	472,409,814.28 (revised)	Jul 17, 2006	Mar 31, 2010	GOE & NDF	CGC overseas	Construction design Share	-	-	#VALUE!	-	-	-	-

31	Ambo-Gedo	301,618,299.00 (revised)	Oct 10, 2006	Jun 07, 2010	GOE & KFW	Keangnam Enterprise Ltd	H.P Guaff Inenieure GmbH & Co.	-	-	#VALUE!	-	-	-	-
										#DIV/0!				
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Road Project Data								HIV/AIDS projects data Up to June 2010					
	Name of project and Main function	contract price	Commencement Date	Completion Date	Financer	Contractor	Consultant	Sub Contractor	Project Price (in	Comencement Date	Completion Date	Disbursment (in '000	Remark
1	Adigrat-AdiAbun	323.274.198,59	16-feb-05	20-aug-08	IDA	CREC	Scott Wilson	Tigray Yth Association	762	June, 06	Aug, 08		completed
2	Nekemt-Mekenago	307.367.271,02	24-aug-04	21-jun-08	IDA	Sinhydro	Span/Stanley	PADET	300	June, 07	June, 08		completed
3	Dera-Magna	146.212.273,09	17-aug-04	11-apr-08	IDA	IRCON	Roughton/BEZA	Family Gud. Ass.	300	Feb, 06	Aug, 08		completed
4	Km 35- Dodola Junction	176.295.946,66	13-sep-06	11-jul-09	ADB/GOE	ALEMAYHU KETEMA							completed
5	Dodola Junction- Goba	20.472.961	8-jul-06	29-dec-10	IDA/GOE	CGCOC	TCDSCO.	ASFD	1.000	Mar,18,08		262,41	On going
6	Assela- Dodola	11.822.667	16-aug-07	21-dec-10	IDA/GOE	Sinohydro	FINNROAD	ASFD	1.000	Jun,08	Oct, 10	787,155	On going
7	Magna-Mechara	468.170.083,65	17-jul-06	14-jan-10	IDA	CGC-overseas	CDSCo/CWCE	Action for Dev't	936	Jul, 08	–	–	Terminated due to poor performance . On the process to start
8	Woreta km 49 APL I	181.288.398,99	24-apr-06	23-apr-09	IDA/GOE	Sur	Saba	NACID	523	Nov, 07	Apr, 09	–	HIV activity started but discontinued (the road is substantialy completed)
9	Gashena-Woldiya	372.394.012,40	31-aug-06	28-feb-10	IDA/GEO	CRBC	ICT/SHELADIA	PADET	19	May,07	Feb, 10	1.116,32	On going
10	Gobgob-Gashena	227.037.454,52	1-aug-06	29-jun-10	IDA/GOE	CWE	AEC	TDF	1.250	Dec,09	–	148,8	On going
11	Km 49- Gobgob/APL I	200.038.395,63	2-mei-06	1-mei-09	IDA/GOE	SATCON	National Engineers	OSSA	445	Mar, 07	May, 09	–	No HIV activity (94%) of the road is completed
12	Nazareth- Assela	233.932.273,70	23-aug-04	22-feb-08	IDA	Sinhydro	RITES	OSSA	300	Dec, 06	Feb, 08	–	completed
13	Sherkole- Blue Nile	201.760.576,11	1-sep-07	31-aug-10	IDA	Sinohydro	Muachel Parkman/CWCE						HIV activity is not started due to disagrement with the contactor (the road is almost complete)

14	Blue Nile- Guba	240.418.447	5-sep-07	4-sep-10	IDA/GOE	Sinhydro	WSP/AEC	CVDA	1.650	Oct, 08	2yrs&half	_	HIV activity is not started due to disagrement with the contactor (the road is almost complete
15	Asosa- Kurmuk	502.877.507,19	9-apr-09	7-apr-12	SFD,BADEA, GEO	Sinohydro	Arabian consulting Enginer/Metafera	_	850	_	_	_	HIV activity is not started due to disagrement with the contactor (the road is almost complete
16	Butajira- Hossana	225.046.936,50	19-jul-04	14-nov-07	ADB/GOE	CRBC	DHV	PROPRIDE		Jul, 04	Nov, 07		completed
17	Hossana- Sodo	212.863.898	19-jul-04	5-nov-07	ADB/GOE	Keangnam	Ict	PROPRIDE		1-7-2004	Nov, 07		
18	Dembi- Bedelle	234.864.490,94	27-jun-06	16-jul-08	BADEA/GOE	MIDROC	Panaf/SABA/GONDWANA	Rafter Ethiopia	595,132	_	_	_	Not yet started
19	Metu- Gore	113.818.003,61	31-aug-07	20-feb-09	OPEC/GOE	CJCIETC	SABA/OMEGA	Rafter Ethiopia	485,793	_	_	_	Given to the subcontracto r but do not start work
20	Harrar- Jijiga	346.262.115,22	11-jan-06	11-jan-09	GOE	Hunan Hunda	Roughton	NACID	500	Feb, 08	Jan, 09		
21	Shire- Adigoshu	616.441.995,20	2-mei-07	7-aug-10	GOE	CGGC	TAHAL	ENFRTD	657	Aug, 07	Nov, 10		
22	Adgoshu- Lugdi	627.709.145,85	10-jul-07	9-jan-11	GOE	Hunan Hunda	CORE JV MCE	Tigray Yth Association	900	Apr,08	Jan, 10	636.817,50	On going but no report
23	Holeta- Mugar	163.680.631,64	23-nov-05	15-sep-08	GOE	SUR	COMPTRAN/BEZA	Woreda H. Office	141	Jul, 08	Jun, 09	_	completed
24	Adiabum- Shire	428.988.368,78	20-aug-07	19-aug-10	IDA	CGGC	Lee Int./DANA	Tigray Yth Association	755	Apr, 08	Aug, 10	473,062	On going, irregular report
25	Ginir- Beridimtu C1	541.718.515,05	20-jun-08	20-jun-11	GOE	YENCOMAD	HAMADA ENGENEERING CONSULT	Rafter Ethiopia	1.292	_	_	_	HIV activity is not stared
26	Beridimtu- Emi C2	497.108.024,65	22-jun-08		GOE	Akir Cons. Plc of Ethiopia	BEZA	Rafter Ethiopia	1.292	_	_	_	HIV activity is not stared
27	Emi- Lab C3	567.680.499,32	16-jun-08	15-jun-11	GOE	SATCON	BEZA	Rafter Ethiopia	1.292	_	_	_	HIV activity is not stared
28	Lab- Gode				GOE	SATCON	LEA	Rafter Ethiopia	1.292	_	_	_	HIV activity is not stared
29	Kombolcha- Mekane Selam	658.766.124,34	20-feb-06	19-aug-09	GOE	CGC-overseas	LEA	INDRICT	1.303	Oct, 07	Aug, 09		
30	Mekane Selam- Gondwein	828.084.839,18	20-feb-06	20-aug-09	GOE	CGC-overseas	Scott Wilson JV Dana	INDRICT	1.303	Oct, 07	Aug, 09		
31	Sanja- Kerker	546.964.937,82	24-feb-09	9-feb-12	GOE	Tibebe of Const. PLC of Ethiopia	SABA Eng.	PROPRIDE of Ethiopia	1.214	_	_	Has no clear info but there is disagrment	On going, report regularly

32	Woreta- Woldiya Road Upgrading project (Woreta km 49)							NACID					
33	Duberti- Qunzila Contract I							PADET					
34	Duberti- Shoura Contract	128.049.228,39	17-jan-05	17-jul-08	GOE /Japan	KAJO	CDSCo/CWCE	Dahinohoran	243	Oct, 07	Oct, 08		
35	Adigrat-AdiAbun Contract II							Tigray Yth Association					
36	Genete- Metema							Retender					
37	Keyafer- Turmi Road Constuction Project Contract III	114.693.207,03	30-jan-07	29-jan-10	GOE	SMS Infrastructure	CWCE	PADET	–	–	–	–	HIV activi not star
38	Addis- Jimma	405.973.872,12	1-mei-99	12-dec-06	EU	Dragados/J&P	DIWI/TY		–	–	–	–	complet
39	Gohatsion-Dejen					kajima							
40	Bonga-Mizan	742.938.243,75	23-apr-08	22-apr-11	ADB/GOE	Keangnam	ICT/TCTE	everyONE		Oct, 2009		158.059,80	On goir repor regular
41	Jimma-Bonga		21-apr-08	20-feb-11	ADB/GOE	Keangnam	ICT	everyONE		Oct, 2009		104.515,47	On goir but no re
42	Addis- Tarmaber C1	867.449.421,12	9-jun-07	8-jun-10	GOE	CRBC	LEA International	PROPRIDE				239.673,82	On goir repor regular
43	Addis- Tarmaber C2	867.449.421,12	20-jun-07	8-jun-10	GOE	CRBC	LEA International	PROPRIDE				no payment	On going no report started
44	Aposto- Irba Moda C-1	660.938.029	28-apr-09	27-apr-12	IDA	Keangnam	–	–	–	–	–	–	No subcontr r
45	Irba Moda- Wadra (C- 2)	617.731.977	1-apr-09	31-mrt-12	IDA	Aydenez- KMZ JV	–	–	–	–	–	–	No subcontr r
46	Gondar-Debark	690.779.965,26	1-apr-09	31-mrt-12	IDA/GOE	Sinohydro	J Burrow/JV with Omega consulting	–	–	–	–	–	No subcontr r

Annex 4: Terms of reference for subcontractors

Terms of Reference (ToR)
For HIV/AIDS Prevention and Control Activities at Road Construction Sites

1. In the first place, the Sub-contractor is expected to carry out knowledge Attitude and practice (KAP) on the current status of HIV/AIDS epidemic in the project road areas including the project influenced areas. The target population of the project shall include all the workers and the community along the road corridor. Based on the KAP survey finding the sub-contractor shall revise the action plan and implement after the approval of the client.

2. The sub-contractor shall have a renewed Certificate from Ministry of Justice or Regional Justice and more than 3 years experience on HIV/AIDS project implementation at the grass root level working with the community.

3. The firm/organization shall prepare an action plan for the period of the service, management and monitoring plans. A detailed plan shall be prepared to monitor the implementation of the HIV/AIDS prevention and control activities and the impacts of the proposed roadwork during construction and after completion. The Consultant should define a few indicators of prevention and control performance activities that can be monitored on a regular basis and also indicate the different eligible stakeholders in place to monitor the activities.

4. The sub-contractor shall submit activity focused budget break down and result focused proposal as well as to be ready to hand over activities to the target to assure sustainability.

5. The sub-contractor shall implement the STD and HIV/AIDS alleviation measures at the project campsites and those communities along the road corridor based on the Government strategic plan.

6. The sub-contractor shall work on awareness raising activities, establish and train peer educators & Anti - AIDS Committees based on the number of the beneficiaries.

7. The sub-contractor shall provide information, education and communication (IEC) campaign about HIV/AIDS and STD to the project staff and the host communities (communities with the road influenced zones) at convenient places, for instance, a Base camp, Satellite camp etc, at least every other month. The sub-contractor shall also put posters, dispatches leaflets and pamphlets. The pamphlets, leaflets and brochures shall be prepared in the respective project roads area community language (i.e. widely spoken language) for easy communication and information sharing. In occasions of IEC campaigns on HIV/AIDS to the roads communities, The sub-contractor shall take the opportunities to undertake sensitization of the community on environment and road safety issues to ensure sustainability.

8. The sub-contractor shall give Voluntary Counseling to the beneficiaries and establish referral system with nearest Governmental and Non Governmental health institutions and shall pay for voluntary counseling and Testing Services and pay for treatment of opportunistic infections.

9. The sub-contractor shall establish network with health institutions (local Government, NGOs, Community Based Organizations, Faith Based Organization, Association, etc) working on HIV/AIDS.

10. The sub-contractor shall make available at least 100 condoms per year for each members of the above construction staff and the host community. The condoms shall be of the male and female types, which shall be provided in accordance with gender of the recipient .The condoms shall comply with the respective current WHO/UN AIDS specification and guidelines.

11. For care and support/nutritional supplement/not less than 100 and not more than 200 birr per month for each worker living with HIV/AIDS has to be included in the project action plan.

12. The sub-contractor, in collaboration with construction Contractor and Consultant, shall celebrate the "World HIV/AIDS Day" on December 1 every year and prepare and incorporate all activities carried out on this day in a monthly or quarterly report.

13. The sub-contractor shall prepare monthly and quarterly reports and submit to the engineer and the client, which subsequently copied to main contractor based on the format prepared by the client.

14. The sub-contractor shall closely work with the contractor and client (ERA) and shall liaise with the representative of the Woreda Health Office and HAPCO.

15. The sub-contractor, as part of the contract, shall recruit a sociologist as a coordinator, a nurse as a councilor and an animator who can speak the local language and deploy in the field.

16. Last but not least, any agreement to be made between the Contractor and the sub-contractor shall be approved by the client and that has to be copied to the Supervision consultants.

17. The sub-contractor, to the end of the project duration, shall hand over all accomplished and started activities to the local health offices or other organizations working on same procedurally. The sub-contractor shall have a sustainability strategy.

Annex 5: Map of Ethiopia