

**IMPACT OF HIV/AIDS ON HOUSEHOLD LIVELIHOODS IN
DAR ES SALAAM CITY, TANZANIA**

BY

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN RURAL
DEVELOPMENT OF SOKOINE UNIVERSITY OF AGRICULTURE.**

MOROGORO, TANZANIA.

2007

ABSTRACT

Many studies have been done on HIV/AIDS in Tanzania yet few empirical studies have been conducted to examine the effect of HIV/AIDS in urban areas including Dar-es-Salaam. This study therefore aimed at estimating the extent to which HIV/AIDS affects household livelihoods as well as identifying common coping mechanism of affected and unaffected households with regard to food security, asset ownership/possession and social network. Therefore, this study was conducted with the specific objectives to: determine the social impact associated with HIV/AIDS; determine wealth of the affected and non-affected households; identifying coping strategies used by household with regard to impacts of HI/AIDS; and compare the impacts of HIV/AIDS between affected and non-affected households. The study gives the detailed explanation on livelihoods framework and establishes household's socio-economic impacts. A cross sectional design was employed. An interview by using closed and open-ended questions was used to get required information. A sample size of 90 respondents was involved of which 45 were affected and 45 non-affected households by HIV/AIDS. *Snow-ball* (chain referral) sampling technique was employed for the selection of individual respondents affected by HIV/AIDS. Multistage and purposive sampling techniques were used to select 45 non-affected households. Data from these respondents were analysed by using Statistical Package for Social Science (SPSS) Version 11.5-computer program. The study revealed that petty business was the main economic activity of the affected respondents (90%). Existence of stigma, poor people integration, inheritance of the widow and inability to provide amount of remittance are the social impacts of HIV/AIDS on household livelihood. The other economic bottleneck is food insecurity, failure to pay medical expense, poor income and school dropout (s). In order to cope with miserable conditions

the study identified a number of coping strategies including reduction in number of meals, selling of household assets and children to live with relatives. Therefore affected households experience more shock of social and economic welfare than non-affected households. The study recommends among other things, new ways of preventing and combating HIV/AIDS from a small scale to a large scale by bringing together the weight of the government and non governmental organizations in order to generate shared momentum so that the magnitude of the problem can be reduced and therefore household livelihoods can be well attained.

DECLARATION

I, Mzimbiri Rehema, do hereby declare to the Senate of Sokoine University of Agriculture that, this dissertation is my own original work and has not been submitted for a higher degree award in any other university.

Mzimbiri Rehema
(MSc. Candidate)

Date

The above declaration confirmed

Prof. E. Mwageni
(Supervisor)

Date

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ACKNOWLEDGEMENTS

I thank Almighty God who helped me in every step in my studies.

Special thanks are due to my lovely parents, Mr. and Mrs. Idriss Mzimhiri for their immense sacrifice they went through in ensuring that I get education. They provided me financial support for my entire postgraduate studies at Sokoine University of Agriculture. They are the person behind all my successes so I feel greatly indebted for both their material and moral support.

I am also deeply indebted to my supervisor, Professor E. Mwageni of Development Studies Institute of Sokoine University of Agriculture (SUA) for his guidance, untiring assistance without which, this work would have been difficult to accomplish. His suggestions, views, opinions and guidance throughout the period of my study were of vital significance. Also the support in terms of professional inputs provided by him before and during the writing of this dissertation remains a permanent asset for reporting other scientific works in future.

Sincere thanks are to the Director of Nutrition Education and Training (DNET) and the Managing Director of Tanzania Food and Nutrition Centre for allowing me to collect data and consult my supervisor during working hours.

Furthermore, I would like to express my sincere appreciation to my research assistants (volunteers of Institutions dealing with HIV/AIDS) and local government officers at Sinza, Mbagala and Tabata in Dar-es Salaam for their valuable assistance during the time of data collection.

Thanks also to the academic staff and my fellow students in the Development Studies Institute (DSI) for their encouragement and moral support.

My deepest thanks also go to librarians of TACAIDS, NACP, NBS and UN Information Centre for their assistance of providing me useful secondary data.

Any weakness found in this work stay behind my own.

DEDICATION

This work is dedicated to my dearly loved husband, Johannes J.K. Kisiri for his financial, moral and comprehensive encouragement towards the successful completion of my M.A degree course.

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11000mm (lowest 800mm and highest 1300mm) per annum. Humidity is around 96% in the mornings and 67% in the afternoons (Wikipedia, 2007). The climate is also influenced by the south-westerly monsoon winds from April to October and north-westerly monsoon winds between November and March. The City is divided into three ecological zones, namely the upland zone comprising the hilly areas to the west and north of the city, the middle plateau, and the low land including Msimbazi valley, Jangwani, Mtoni, Africana and Ununio areas. The main natural vegetation includes coastal shrubs, Miombo woodland, coastal swamps and mangrove trees.	39
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LIST OF ABBREVIATIONS

AIDS	-	Acquired Immune Deficiency Syndrome
ANC	-	Ante-Natal Clinic
CONSENUTH	-	The Centre for Counselling, Nutrition and Health Care
DAWASCO	-	Dar- es- Salaam Water and Sewerages Corporations
DFID	-	Department for International Development
DNET	-	Director of Nutrition Education and Training
FAO	-	Food and Agricultural Organizations
GDP	-	Growth Domestic Product
HIV	-	Human Immunodeficiency Virus
H/hh	-	Head of Household
hh	-	Household
ICAD	-	Interagency Coalition on AIDS and Development
IEC	-	Information Education and Communication
MDG	-	Millennium Development Goal
MKUKUTA	-	Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Tanzania
MoH	-	Ministry of Health
NACP	-	National Aids Control Program
NGOs	-	Non Governmental Organizations
NSGRP	-	National Strategy for Growth & Reduction of Poverty
PASADA	-	Pastoral Activities and Services for people living with HIV/AIDS Archdiocese of Dar es Salaam
PMO	-	Prime Ministers Office

SHIDEPHA	-	Service Health and Development for People Living with HIV/AIDS
SNAL	-	Sokoine University of Agriculture Library
SPSS	-	Statistical Package for Social Sciences
SUA	-	Sokoine University of Agriculture
TACAIDS	-	Tanzania Commission for AIDS
TB	-	Tuberculosis
TDHS	-	Tanzania Demographic Health Survey
TGNP	-	Tanzania Gender Networking Program
TFNC	-	Tanzania Food and Nutrition Centre
UNAIDS	-	United Nations Population Fund
UNDP	-	United Nations Development Programme
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nation Children's Fund
URT	-	United Republic of Tanzania
USAID	-	United State Agency for International Development
WAMATA	-	<i>Walio katika MApambano na AIDS</i> Tanzania
WB	-	World Bank

CHAPTER ONE

INTRODUCTION

1.1 Background information

Acquired Immunodeficiency Syndrome (AIDS), which results from long term infection with Human Immunodeficiency virus, was first recognized as a disease in the early 1980s in USA (Boer, 2005). Since then it has spread throughout the world (UNAIDS, 2000). The scale of the epidemic has exceeded all expectations since its identification more than 20 years ago and is quite distinct from most diseases (Boer, 2005). Globally an estimated 36 million people are living with HIV and some 20 million people have already died, with the worst of epidemic centered in sub-Saharan Africa. Also globally, it is the fourth most common cause of death (5.3%) out of Ischemic Heart Disease (12.96%), Cerebrovascular Disease (9.2%) and Lower Respiratory Infection (6.9%) (UNAIDS, 2002). According to the World Health Organization's 1999 Annual world health report, it is now the leading cause of death in Africa, responsible for one in five deaths.

There is a considerable variation in the pattern of epidemic spread between countries, within countries, and even locally (WHO, 2005). Consequently, there is also variation in the impact of the resulting illnesses and premature deaths. In the richer countries of the world, rates of infection are low and advances in treatment mean that people can live with AIDS although for how long and in what state of health is still unclear. The burden of the epidemic falls on the world's poorer countries and also on poorer communities in some richer countries (WHO, 2005).

Furthermore, in 1999 alone, 5.4 million new AIDS infections emerged worldwide; 4 million of them in Africa. Not only that but also 2.8 million people died of AIDS worldwide, 85 percent of these deaths were in Africa and more than 500,000 babies were infected with AIDS in 1999 by their mothers most in sub-Saharan Africa (UNAIDS/WHO, 2000).

HIV infection is not an immediate death sentence but it depends upon individual's living conditions (livelihood), rates and types of current infection and diet an infected person may have to prolong the life span (UNAIDS 2000). Although no one is certain as for how long people can live with HIV, the range is estimated at, on average, five to eight years in poorer countries, and possibly many more years in richer countries. Many opportunistic infections and diseases associated with AIDS can be treated (or prevented) at relatively low cost, thus prolonging life. The antiviral therapies cost \$8,000 to \$11,000 per person per year for the drugs, and this amount does not include the cost of testing and of clinical oversight of treatment regimes, therefore HIV/AIDS increases expenses in terms of medical cost (UNAIDS, 2000). Moreover, as the spread of HIV has been greater than predicted, too has been its impact on social capital, population structure and economic growth. Therefore HIV/AIDS threatens the livelihood of many active population and those who depend on them, families, communities and enterprises. In doing so, it also weakens national economies (UNAIDS, 2003). The first cases of AIDS in Tanzania were reported in the northwest region of Kagera in 1983 (NACP, 2001). In the following years, HIV spread to all regions of mainland Tanzania and, at a slower rate, to the regions of Zanzibar.

In Tanzania nearly 700 000 children and under 15years old had lost their mother or both parents due to AIDS in the 2001 (Otito, 2004). HIV/AIDS is increasingly becoming the

major underlying factor for hospital admissions and deaths. Many diseases, which seemed to have been controlled ten years ago, have returned to previous levels due to HIV/AIDS (Temba, 2003). About 1.2 percent of the world population in the age group of 15-49 is HIV/AIDS affected. Out of them 7.8 percent are from Tanzania, the World Population Bureau Statistics (2003) reported.

In Tanzania a national AIDS Task Force was established two years (1985) after the first HIV infection was identified (1983), purposely for mobilization of the health sector through training health workers and establishing blood safety measures (NACP, 2001). The TACAIDS was established in 2001 by Act No 22 to ensure that the government has an institution which is responsible for formulating and implementing the national policy on HIV/AIDS. Still the severe AIDS epidemic presents a tremendous challenge to Tanzania, which ranks among the *poorest* countries in the world. The response of national programs has primarily focused on the health sector, and to a lesser extent on other sectors such as labour and education. (NACP, 2001).

On 31st December 1999 President B. Mkapa of Tanzania declared the HIV/AIDS epidemic a 'National Disaster' and called upon the entire nation including the Government, political, religious and civil leaders and Non-Governmental Organizations, on the importance of taking new measures to put the nation on a war-footing against HIV/AIDS (Ministry of Health, 1999).

Furthermore, in 2006 the Minister for Health and Social Welfare declared that HIV/AIDS has become one of the most serious threats that our country is facing and therefore his Ministry depends on reliable and committed partners to succeed in the fight against this

dreadful disease (The Guardian, 2006). The study recall period (1998-2003) that the spread of HIV/AIDS has exceeded the projections by far. Among the death 57 percent were due to HIV/AIDS. Each death occurring due to HIV/AIDS robs the Prime Ministers Office on the average 19.3 years of productivity. This could as well vary between 17.1 to 21.5 years with 95 percent probability. Extrapolating the cost for all deaths due to HIV/AIDS, the PMO incurred 26, Tshs. 264 175 000 to meet the costs of burial between 1998 and 2003 (PMO, 2004). According to Pallangyo and Liang in World Bank (1992), the average lifetime cost per adult case is estimated to be TShs 55 917 while the cost per pediatric case is Tshs.37 651 (assumes the current referral system and 100 percent drug availability). Eventually HIV/AIDS affects production, availability of labour, results into loss of income, which reduces the available financial resources for the household.

1.2 Problem statement

Tanzania like other countries in sub-Saharan Africa is facing serious health and socio-economic problems of uncommon nature as a result of the AIDS epidemic (NACP, 2001). It is more than two decades now and HIV/AIDS affecting not only the health of people but also depleting household savings, killing people and affecting seriously the social and economic situation of Tanzania (TDHS, 1996).

The impacts of the epidemic on the lives of Tanzanian's are very dangerous as its death cases are increasing. The cumulative death cases rose from three (3) in 1983 to 130 386 in 2001 (NACP, 2001). In Dar es Salaam City, community data indicate that HIV/AIDS is the leading cause of death (MoH, 2002). When the number of affected people in the community increases, the livelihood of individual families and the communities is also affected (FAO, 2003). It is stressed that those households affected by HIV/AIDS have

livelihoods to support and sustain. A contribution of those livelihoods' approaches on highlighting the impact of the epidemic is in all areas of people's lives (URT, 2002). More concerted efforts to control the epidemic started in 1985 with the formulation of short-term plans. Not only that but also UNAIDS, NACP, TACAIDS, NGOs and governmental organizations still make efforts to control it nevertheless, HIV infection rates and deaths due to AIDS in the country continue to grow, suggesting that the epidemic is worsening (NACP, 1998).

Despite the fact that the policy continues to be reviewed and updated in relation to emerging developments life styles (cultural or economic) in society still the impact of the pandemic is high (URT, 2001). In addition, despite of all the efforts, conferences, global AIDS programs there is still insufficient data on HIV/AIDS pandemic or reliable figures coming out of Tanzania specifically in Dar es Salaam, where the prevalence of HIV/AIDS seems to remain approximately stagnant since 1996 (10-15%), and 2003-2004 (10.9%), (TACAIDS, 2004).

Existing empirical studies have so far been conducted to examine the situation or effect of HIV/AIDS in many areas including Dar-es Salaam Region. The research has been done in Dar-es-Salaam Region with the aim of providing the extent to which HIV/AIDS affects household livelihoods as well as identifying common coping mechanism of affected and unaffected households with regard to food security, asset bases and social network. The study thus seeks to determine the impact of HIV/AIDS on households' livelihood in Dar-es-Salaam City so as to cover insufficient data on HIV/AIDS pandemic.

1.3 Justification

The HIV/ AIDS pandemic has been declared as a national crisis and is now one of the top development agenda in the Government, along with poverty alleviation and improvement of the social sector services (NACP, 2002). In November 2001 the Tanzanian Government launched its National Policy on HIV/AIDS, setting the general framework for collective and individual action to the epidemic and defining the policy objectives (URT, 2001). On HIV/AIDS research, the policy objective is to provide the framework to promote and coordinate multisectoral and multidisciplinary research findings. This is in appreciating that the HIV/AIDS epidemic has raised many complex issues that demand extensively well funded and well coordinated research programmes (URT, 2001). To achieve this and other policy objectives, emphasis has been laid on the dissemination of information in order to allow rapid generation of knowledge, issues and information on HIV/AIDS. Since its announcement in November 2001, several institutions, organizations and individuals have been working hard to implement the policy. For example UNAIDS, TACAIDS; NACP, WAMATA; and Ms Materu, a Director of Conselling Nutrition and Health Care respectively.

There is vast, and growing, literature on the medical and social aspects of HIV/AIDS. But in the course of reviewing the literature for this research, it was apparent that much of the non-medical literature (particularly that in the social sciences) does little to take forward understanding of the impact of HIV/AIDS and how the impact might be mitigated. And much excellent work remains unpublished or only available in some academic journals not readily accessible in the public domain, readily translatable into action (UN, 2001). This study is of paramount importance since it will generate scientifically empirical information on AIDS, a critical step in slowing the spread of disease in our country. The research is

also part of the academic purpose and in line with Millennium Development goals, which aim at;

- a) A 25% reduction in HIV infection rates among 15-24 years old in the worst affected countries by 2005 and globally by 2015 (WB, 2002).
- b) Eradicate extreme poverty and hunger, and a reduction of 50 % of the people who live in extreme poverty by 2015 (URT, 2000).

Furthermore, the study links with the National Strategy for Growth and Reduction of Poverty in Swahili known as MKUKUTA which aims at reducing absolute poverty by half from 48 % in 2000 to 24 % in 2010. MKUKUTA however, goes together with the national objectives and Millennium Development Goals in fighting against HIV/AIDS and poverty. It also links with the Tanzania Food and Nutrition Policy (URT, 2005). This is because of the strong relationship between poor nutrition and poor health. Good nutrition depends much on adequate food supply and the absence of diseases, especially infectious ones (URT, 1992).

Nevertheless, it links with the Tanzanian health policy of (URT, 2002), which among other things aims at containing the spread of HIV/AIDS. The Tanzania Development Vision 2025 identifies health as one of the priority sectors. Among its main objectives is achievement of high quality livelihood for all Tanzanians. This is expected to be attained through strategies which will ensure realization of the following health service goals:-

- a) Access to quality primary health care for all,
- b) Universal access to safe water,
- c) Life expectancy comparable to the level attained by typical middle-income countries,

- d) Food self-sufficiency and food security (URT, 2002).

Dar es Salaam Region is among the three leading regions with HIV/AIDS in the country (10.9%) while the first one is Mbeya (13.5%) followed by Iringa (13.4%) (TACAIDS, 2004). Dar- es Salaam Region (is leading) has multi-cultural people due to high rural-urban migration and usually these people go back to rural areas after being affected and thereafter affect households livelihood in rural areas. There is little knowledge on the impacts of HIV/AIDS on households' livelihoods in Dar es Salaam Region (Temba, 2004). Furthermore, HIV/AIDS is not only a health issue that demands care and prevention for the sick but also a livelihood issue as it depletes households and collapse(s) livelihood of survivor (Temba, 2004). A research on the impact of HIV/AIDS on household livelihood in Dar es Salaam is important as a basis for designing interventions to reduce HIV/AIDS infection and poverty within the households and the community as well.

1.4 Objectives

1.4.1 Main/general objective

To determine the impacts of HIV/AIDS on household livelihoods in Dar es Salaam City. The generated information will be valuable for addressing social and economic problems of programmers and policy makers in Tanzania.

1.4.2 Specific objectives

The specific objectives are:

- i. To determine social impacts associated with HIV/AIDS.
- ii. To determine how HIV/AIDS affect wealth of the household (usually money savings, assets, food intake and uptake of service that require cash).

- iii. To identify coping strategies used by household with regard to impacts of HIV/AIDS.
- iv. To compare the impacts of HIV/AIDS between affected and non-affected households basing on food security, ownership of assets and intake and uptake of services that require cash.

1.5 Hypothesis

1.5.1 Null hypothesis

- 1. Livelihoods of affected and unaffected households by HIV/AIDS do not differ significantly.
- 2. Households affected by HIV/AIDS use difficult (reduction in numbers of meals, selling of household assets and child labour) coping strategies to sustain their life.

1.5.2 Alternate hypothesis

Livelihoods of affected and unaffected by HIV/AIDS do differ significantly.

- 1. Households affected by HIV/AIDS use simple coping strategies to sustain their life.

1.6 Research questions

- a) What are the social problems faced by the households due to HIV/AIDS?
- b) Is there any difference on obtaining basic needs between the affected and unaffected households?
- c) How do the affected and unaffected households cooperate?

1.7 Conceptual framework on impact of HIV/AIDS on household livelihood

In order to meet the information of the above stated objectives and identify the variables for data collection a conceptual framework was developed. The conceptual framework prevents fragmentation of knowledge into diverse segment of unconnected statement. Mbwapbo, (2000) argues that, that framework can bind facts together and hence provide guidance towards realistic collection of data and information. The conceptual framework for this study is presented in figure1. The conceptual framework is a narrative outline presentation of variables to be studied and hypothetical relationships between and among variables. It details the variable that was examined and their expected relationship. The conceptual framework groups the variables into background, independent and dependent variables. The types of variables shown in the conceptual framework are; background variables, which include age, occupation, marital status, and education of the head of households, and family size of the households. The independent variables are social impacts such as inheritance, people's integration, amount of remittance, dependent ratio and migration; economic impacts such as medical cost, income, household food security and school dropout; and coping strategies such as changing in consumption, substitute cheaper commodities, selling of household assets, selling of livestock, selling of land and sending children to live with relatives. The variables used in this study are defined in Appendix 1.

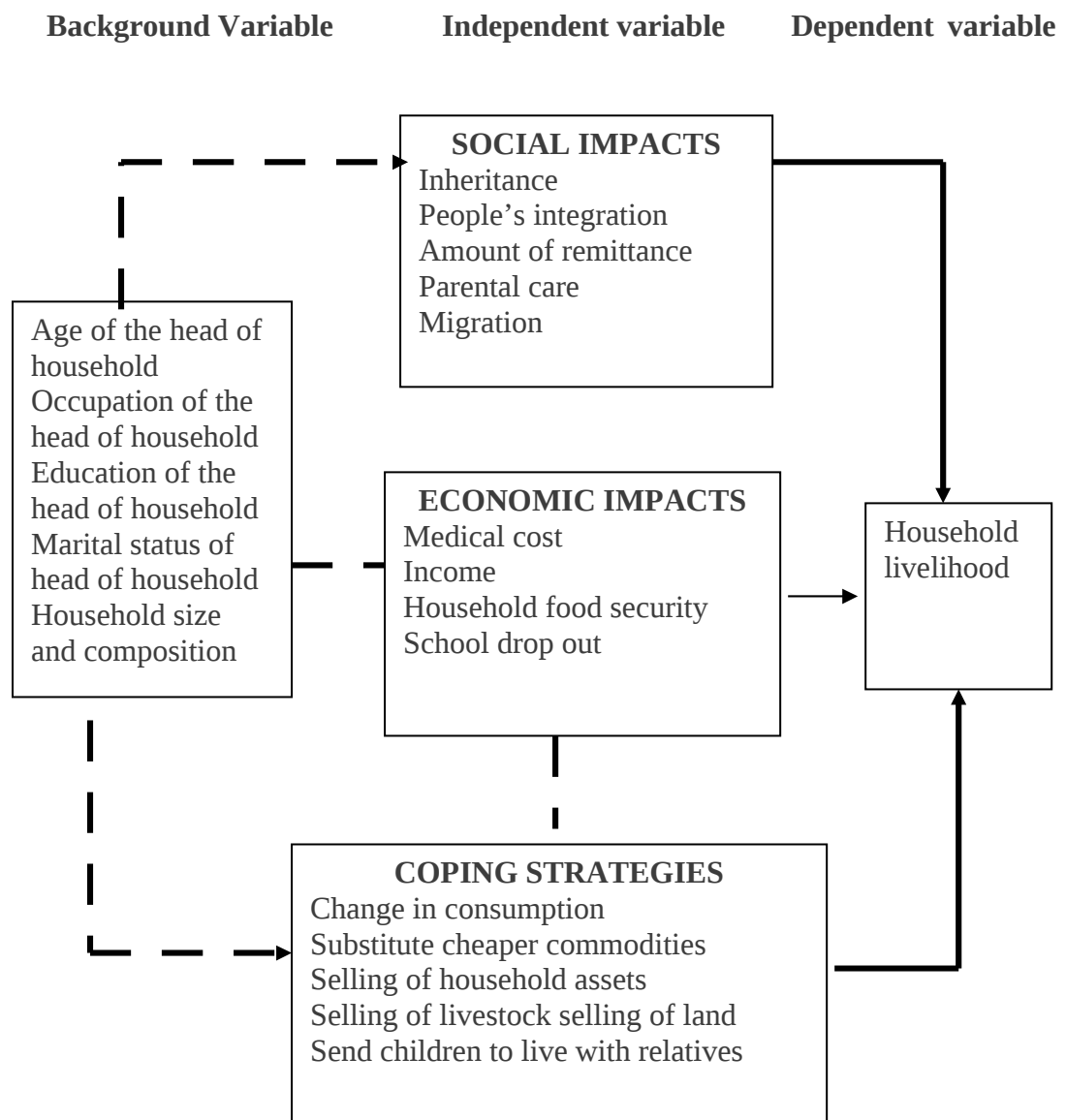


Figure 1: The Conceptual framework for the study of socio-economic impact of HIV/AIDS on household livelihood in Dar es Salaam City

Key:

————→ Relationship for secondary analysis

- - - - -> Relationship for primary analysis

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter reviews some literature on socio-economic impacts of HIV/AIDS on household livelihoods. First of all, the general overview is in section 2.1, the global situation of HIV/AIDS is in section 2.3 and HIV/AIDS in Tanzania is in section 2.4. While Impact of HIV/AIDS is discussed in section 2.5, the sustainable livelihood framework is in section 2.6, HIV/AIDS/livelihood linkages is in section 2.7 and in section 2.8 Coping strategies at the household level is elaborated.

2.2 General overview of HIV/AIDS status

Acquired Immune Deficiency Syndrome (AIDS) is caused by the human Immunodeficiency virus (HIV). This virus is transmitted via human body fluids; globally most infections occur through sex between men and women. The virus attacks the immune system and ultimately makes it ineffective. The disease tends to affect people in the age group that is broadly defined as 'sexually active'-between 15 and 50 years, although this is not to say that there are not infections below and above this range (15 and 50 years) (Erickson, 1990).

HIV/AIDS was a major development crisis that affected all sectors during the last decades. Globally the epidemic has spread relentlessly affecting people of all walks of life and decimating the most productive segments of the population (UNAIDS 2004). By the end of 1999 it is estimated that globally, 33.6 million adults and children were living with HIV/AIDS, and 16.3 million had already died (URT, 2001). In the same year there were

5.6 million new infections of which 4 million were in sub-Saharan Africa (URT, 2001). . Cumulatively, it is estimated that 13.2 million children have been orphaned globally by HIV/AIDS and about 9.4 million are in Africa alone (URT, 2001).

In Africa AIDS is the global epicentre and it is estimated that 83% of all the world's AIDS cases/deaths are from this continent and the most affected part of Africa is sub-Saharan Africa (UNAIDS, 1999). According to the 13th International AIDS Conference in Africa, the pandemic has reached epic proportions. The virus has spread into every corner of the continent- nearly 25 million Africans are HIV positive with infection rates in many areas climbing as high as 50 to 70% (UNAIDS, 2004). It was in the early 1980s when the first cases were reported in the African continent. By the 1987 the epidemic had become concentrated in most sub-Saharan Africa. Nearly 33.6 million cases are in sub-Saharan Africa, Tanzania being one of the most affected countries (URT, 2001).

In Tanzania the first three cases were reported in 1983 in Kagera Region. By 1986 all the regions in Tanzania mainland had reported cases of HIV/AIDS. By the end of 1999 there were some 600,000 cases of HIV/AIDS and a similar number of orphans (URT, 2001). An estimate of 1.4 million people [1.3 million- 1.6 million] (6.5% of adults [5.8%-7.2%]) were living with HIV in 2005, highlighting the challenges of improving prevention efforts and substantially expanding access to treatment and care (UNAIDS, 2006). The National AIDS Control Program (NACP) estimates that about 800,000 people, or about 3.2 percent of the population, are currently infected with the disease (i.e., are HIV sero-positive) (Over, *et al.*, 1989). Of these approximately 160,000 have already developed AIDS (i.e., have crossed the threshold from being infected to being ill). The remainder will develop AIDS sometime between less than one and end up to twenty years from to date of infection (the

median time for adults between infection and becoming ill appears to be eight to ten years in developed countries and may be less in developing countries) (NACP, 2001). Death follows within a year or two of the onset of major symptoms, and often much sooner. In Tanzania annual deaths from AIDS are presently estimated at between 20,000 and 30 000 which is 5-7 percent of total deaths (WB, 1992). AIDS is believed to have recently surpassed malaria as the leading killer among diseases in adults and is likely to do so for children in the very near future.

Some parts of the country are much more affected than others. For example in Kagera Region, where the epidemic first manifested itself in Tanzania, reported AIDS deaths are about 16 percent of all deaths and the actual figure may be higher due to underreporting (Over *et al.*, 1989). This will depend on whether there are differences among regions with regard to the extent of sexual activity outside marriage and the prevalence of sexual transmission infections (STIs) in the population, but information on these factors remains sketchy (NACP, 2001). Other Regions reported high rates of HIV/AIDS includes Mbeya (13.5), Iringa (13.4) and Dar es Salaam (10.9), Mtwara (7.3), Kilimanjaro (7.3), Mwanza 97.2), Tabora (7.2). Generally, the prevalence of HIV/AIDS in Tanzania is 7 percent (TACAIDS *et al.*, 2004). There are also large disparities across different subgroups of the population. HIV infection levels are highest in people between 15 and 45, and in new-born infants (NACP, 2001).

HIV infection rates are highest increasing especially rapidly among adolescents. Women and men are about equally infected. Women appear to become infected at a younger age than men on average (WB, 1992). These facts are consistent with what is known now about how the disease is transmitted in Tanzania. By far the most important transmission

route is heterosexual contact, which is estimated to account directly for close to 80% of all infections in the country (WB, 1992). This greatly affects production, availability of labor, results into loss of income, which reduces the available financial resources for the household. The World Bank estimates that AIDS will reduce average real GDP growth rate in the period 1985-2010 from 3.9% without AIDS to between 2.8 and 3.3% with AIDS (WB, 1992).

The likely future prospects of the epidemic will depend crucially on a number of vital and difficult-to-predict variables including sexual behavioural patterns, and in particular, to the proportion of the adult population with multiple sexual partners. If, for example, both partners in 45% of married couples are “sexually monogamous”, it has been estimated that, by the year 2000, about 1.2 million people will be carrying the virus and another 450 000 will have died of AIDS, with these numbers growing to about 2.3 million and 1.7 million respectively by the year 2010 (Over *et al.*, 1989). On the other hand, only 15% of married couples are mutually monogamous, as many as 3.6 million could be infected by 2000 and AIDS deaths could be as high as 1.6 million, growing to 6.1 million infected and 5.6 million deaths by 2010. This figures imply that 3.9 to 12.4% of the population will be infected by 2000 and 5.8 to 17.4% by 2010 (Over *et al.*, 1989).

According to MKUKUTA equitable and sustained access to care, support and treatment are essential to improve the well-being and life expectancy of people living with HIV and AIDS. Issues pertaining to finances, infrastructure, human and logistical weaknesses need to be resolved first, so as not further weaken an already constrained healthy system. HIV and AIDS erode productivity, and cut down on effective manpower (NSGRP, 2004). This

is in appreciating that the HIV/AIDS epidemic has raised many complex issues that demand extensive well funded and well coordinated research programmes.

2.3 The Global situation of HIV and AIDS

Since the identification of Acquired Immune Deficiency Syndrome (AIDS), 20 million people have died and 40 million people live with AIDS or Human Immunodeficiency Virus (HIV) in the world and the pandemic is spreading worldwide (USAID, 2002). Among those affected, 95% live in developing countries and Africa alone accounts for two third of current HIV/AIDS cases. The increase in adult mortality has left and will continue to leave many children without parents who are the principal caregivers and breadwinners in the households. On the other hand affected households by HIV/AIDS often move to relative affluence into poverty. This is a very big challenge to the poor resource households that cannot meet even the basic needs (USAID, 2002).

There is a need to recognize that the risk as a global problem, a human problem, but one which will affect societies differing in their histories, cultural level and ways of life (Barnelt *et al.*, 1992). The spread of HIV epidemic has varied considerably between developed and developing countries, depending on culture as well as other social and behavioural patterns. Incidence rates have been highest in developing countries where sexual transmission is most common. Definitely, sexual transmission is by far most important accounting for over 75% of all HIV infections world wide (Muhondwa, 1997).

In Tanzania, HIV/AIDS is a global disaster that calls for concerted efforts and unprecedented initiatives at global and national levels. Tanzania like other sub-Saharan Africa is facing a serious health and socio-economic problem of unprecedented nature as a

result of the AIDS epidemic as indicated by the National AIDS Control Program (NACP, 2001). Since 1983, when the first cases of AIDS were reported in Tanzania, HIV/AIDS epidemic has spread both in rural and urban areas. Figure 2, presents comparison of region specific HIV prevalence among ANC attendees both from rural and urban areas of Tanzania between 2001/2002 and 2003/2004.

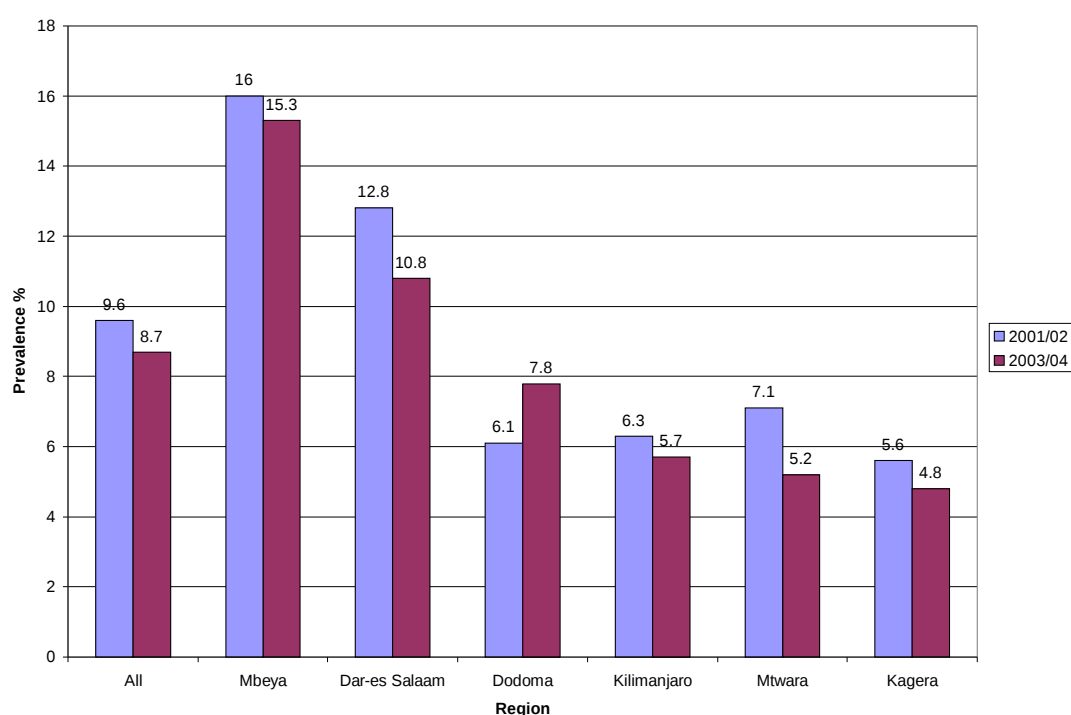


Figure 2: Comparison of region specific HIV prevalence among ANC attendees between 2001/02 and 2003/04 in Tanzania

Source: (TDHS, 2004)

In Tanzania, most infections are mainly sexually transmitted through heterosexual intercourse and therefore youth being the sexual active groups are the main population group most affected. Worse still, the HIV/AIDS pandemic has interacted with other underlying public health problems, most notably tuberculosis (TB). In Dar-es-Salaam,

HIV/AIDS and TB were reported the leading cause of death in adults (MoH, 2002). TB remains the principal cause of death in people living with HIV/AIDS. Up to 50% of TB patients in Tanzania are co-infected with HIV/AIDS where as in other countries this accounts up to 70% (MoH, 2002). According to UNAIDS (2002), 50% of beds at Muhimbili Hospital were occupied by those with AIDS related illness in 2001.

Concerted efforts to control the epidemic started in 1985 with the formulation of short-term plans. Since then the national response to the epidemic has been diverse and variable both in nature and scope. Nevertheless, HIV infection epidemic is worsening (NACP, 1998). By 1986 all regions in Tanzania mainland had reported AIDS cases. By the end of 1999 there were some 600 000 cases of HIV/AIDS and a similar number of orphans. According to TDHS (1996), HIV/AIDS infection has been identified as a serious health and socio-economic problem in Tanzania. It is a major development crisis that affects all sectors.

The national HIV/AIDS policy in Tanzania formulated in 2001 provides a framework for individual response to HIV/AIDS pandemic and this works through the Tanzania Commission for AIDS (TACAIDS), which is working under the Prime Minister's Office (URT, 2001). The policy is geared to fight against the HIV/AIDS pandemic and everyone has a role to play and must be fully involved in the struggle against HIV/AIDS pandemic. However, the policy will continue to be reviewed and updated in relation to emerging development life styles (cultural or economic) in society and the trend as well as the impact of the pandemic (URT, 2001). The policy will be reviewed from time to time in order to address emerging issues (URT, 2001). The ultimate objective of the National HIV/AIDS policy is to provide for a framework for leadership and coordination of the

national multicultural response to the HIV/AIDS epidemic. Also it provides a framework for strengthening the capacity of institutions, communities and individuals in all sectors to arrest the spread of the epidemic (URT, 2001). Specifically it includes prevention and transmission of HIV/AIDS, HIV testing, care for people living with HIV/AIDS, sectoral roles and financing, research, legislation and legal issues (URT, 2001).

2.5 Impacts of HIV/AIDS

2.5.1 Demographic impact

Most of the epidemic's effects on Tanzania's population growth will be from increased mortality. It is projected that the impact on fertility will be minimal. If anything, population will continue to grow, but the annual growth rate will decline from 2.8 - 3.0% in 1994 to 2.0-2.6% by 2010 (Par Paso Group, 1994). In the approximately 25 years since AIDS emerged as a major health emergency, the epidemic has had a serious, and in many places devastating effect in human development. In some countries, AIDS is undermining progress towards the Millennium Development Goals, particularly those related to poverty reduction, achieving universal primary education, promoting gender equality, reducing child mortality and improving the health of mothers (UNFPA, (2003) in UNAIDS, 2006).

The overall impact of AIDS on the global population has not yet reached its peak, and its demographic effect will like be felt well into the second half of the 21st century (UNAIDS, 2006). Projections suggest that by 2015, in the 60 countries most affected by AIDS, the total population will be 115 million less than it would be in the absent e of AIDS (UNAIDS, 2006). Africa will account for nearly three quarters of this difference in 2050, although life expectancy for the entire continent will have risen to 65 years from the current 49.1 years. In the most severely affected countries of sub-Saharan Africa, AIDS

continues to slow or reverse improvements in life expectancy and distort the age-structures of entire populations (UNAIDS, 2006). On the mainland of the United Republic of Tanzania, an estimated 1.4 million people [1.3 million-1.6 million] (6.5% of adult [5.8%-7.2%]) were living with HIV in 2005, highlighting the challenges of improving prevention efforts and substantially expanding access to treatment and care (UNAIDS, 2006).

In 1994 AIDS was expected to increase the adult mortality rate to about 25/1000, from about 7/1000 in the late 1980s. The child mortality rate, which has been decreasing steadily for the past twenty years, is likely to begin increasing again within the next few years. Overall, the crude death rate could increase to as much as 24/1000 (from 20/1000 currently) and average life expectancy could drop to about 40 years (from 48) (Over *et al.*, 1989).

Population growth will remain positive, but the rate of growth could decline from the current 2.8-3.0 percent annually to 2.0-2.6 percent by the year 2010. Thus, population growth pressures will still be a major problem and concerted efforts to improve and expand population policies and programme, especially family planning, will continue to be an urgent and high priority (UNAIDS 2006).

The age structure of the population will change in several ways. The 15-to-64 age group, i.e., working age adults, will become younger overall: their average age will decline to 29, instead of 31.5 in the absence of AIDS. The under-15 age group will be somewhat smaller than it would have been otherwise, due mainly to deaths of AIDS infants, but will be relatively fewer than the losses in the 15-64 group, the under-15 group will account for a larger proportion of the 0-64 population in the with-AIDS case than in the without-AIDS

case. These trends, together with the reduced size of the 15-64 groups, will cause the elderly dependency ratio to be higher (Love life, 2004). Following death the impact breaks out of the household and into the community in the form of increasing number of dependants such as orphans.

According to Kessy *et al.* (2004), An analysis of the impact of the disease on demographic characteristics of the population reveals that annual cumulative AIDS deaths is expected to fall on the 15-49 years age group, the most sexually active and in the prime of their productive years. The annual deaths are also increasing from about 99 000 deaths in 2000 to about 175 000 deaths in 2015. Based on conjectures made about the morbidity, mortality and expenditures related to HIV/AIDS, it was found that by 2015, 22% of the health budget would be spent on HIV/AIDS related patients if the current situation prevails and about 50% of hospital beds will be occupied by HIV/AIDS patients in year 2015 because of the epidemic and per capita GDP would be about 4% lower in 2015 due to the HIV pandemic (Kessy *et al.*, 1997).

Expectations of future losses of family members also affect decisions with regard to family sizes (number of children, adoption of extended family members) and how or where the household supports itself (where the family resides, how many members work) (Over *et al.*, 1989). Therefore AIDS can be concluded that households belonging to the poor and less educated or unskilled groups, as well as female members of the households face a proportionately greater economic burden due to AIDS.

2.5.2 Social -economic impact

The effect of the epidemic on demography is in turn affecting the economy in many ways including:-

- a) Labour force has been affected and will be affected even more. The number of workers and potential worker(s) with various levels of training and experience has been reduced as AIDS takes away the most productive work force in the economy.
- b) Expenditure on AIDS, both at household and national levels is adversely affecting savings, investment and economic growth.

It is apparent therefore, that the HIV/AIDS epidemic has created untold socio-economic impacts to the people of Tanzania (Par Paso group, 1994). Economic literature suggests that deaths, particularly adult deaths, impose numerous economic impacts at the household level (Over *et al.*, 1989). Impacts can be classified by their sphere of economic influence and by the time they are felt by the household in relation to the time of death as illustrated in Table 1. Such impacts occur over an extensive period, beginning at the onset of the illness and continuing until well after an individual's death. They are felt not only by the household of the person dying but also by other households in the community. For this reason, households experience some impacts even before, or without, an illness and death of their own members (Over *et al.*, 1989).

Illness and death are recognized as an inevitable part of the human condition entailing both psychic and monetary costs; households take certain precautionary actions in an attempt to minimize the negative consequences of these future events (WB, 1992). These precautions include, for example, investing in preventive health care, setting aside a portion of income

to meet possible future needs (precautionary savings) and or purchasing insurance. They may also assist other households currently experiencing the loss of a loved one, with the expectation that this support will be reciprocated in their own time of need. These precautions affect current consumption and investment of the household.

The impacts are, of course, more acute, once the household is itself experiencing illness of one or more of its members. If the ill person is a working adult, his or her labour productivity may be reduced and others may have to take on a larger workload if household income is not to fall (WB, 1992). A sick mother may mean that children are not as well cared for as on the household, making additional demands on productive family members, with the possibility that overall output is reduced. Household consumption and investment are affected to the extent that treatment and care costs cannot be met from current savings. These changes, if extreme can affect the long-term welfare of the household. For example, household assets may be sold, leaving the family without the means to support itself in the future. These negative impacts may, of course, be moderated by transfers from outside the household; that is, from extended family, friends, or the community at large (Over *et al.*, 1989).

Indeed, households and families bear most of the burden since they are primary units coping with the disease and its consequence. Families in which the infected person is breadwinner suffer financially, both from the loss of earnings and the increased expenditure for medical care (UNAIDS 2004).

Table 1: The Economic Impact of Adult Fatal Illness on the Household

Type of economic impact	Timing of impact			
	Prior to an illness	During an illness	Immediately after death	Long-term impact of death
Production and earnings	Organization of economic activity	Reduced productivity of affected person	Lost output of deceased member	Reallocation of land and labour
Consumption and investment	Choice of area of residence	Reallocation of labour		
	Insurance Preventive health care Precautionary savings Transfers to other households	Medical cost of treatment Dissavings Changes in consumption and investment Receipt of transfers	Funeral costs Receipt of transfers Payment of legal fees	Changes in type and amount of consumption and investment
Household health and composition	Household size Fertility	Change in allocation of time to health maintenance	Loss of member	Dissolution or reconstitution of household Migration Poor health of survivor
Psychic costs		Disutility of ill individual	Grief of survivors	

Source: Over *et al.*, (1989)

Likewise the impact of AIDS on families is gender dependent. An adult death may have especially far reaching consequences for the household since is the main caregivers in families. Also women tend to manage household budgets in ways that enhance the food and nutrition security of the entire household and of children in particular (TFNC, 2005). Upon the death of a woman, children in Tanzania tended to replace her domestic roles in short run and dropped out of school to do so (UNAIDS, 2004).

Household monthly income is a reflection of economic status and also could be a reflection of purchasing power and priority the household attach to the items (Lorri *et al.*, 1997). Household income is reduced when an adult is ill and families can exhaust their entire savings long time before their infected member die, a phenomenon that has adverse effect on social and economic welfare of the household. The illness result not only in higher medical expenses and lower income for the family members, but also increase and create hardships for survivals and therefore HIV/AIDS can affect family income (UNAIDS, 2002).

HIV/AIDS affects the welfare of households though illness and death of family members, which in turn leads to the diversion of resources from savings and investment into care (Lovelif, 2000). Once a household member developed AIDS, increased medical and other costs, such as transport, to and from a health service, occur simultaneously with reduced capacity to work, creating a double economic burden. Intensive use of child labour increases as a major strategy typically used by the afflicted household during care provision. Children may be taken out of school to fill labour and income gaps created when productive adults become ill or are caring for terminally ill household care provision (Lovelif, 2004).

Furthermore, HIV and AIDS can cause affected households to become socially excluded, thus diminishing their ability to cope with further crises. It is a social context that is unlikely to withstand the weight of need that HIV/AIDS related deaths generate and many, especially children and the aged, face economic and social destitution. It is increasingly clear that as a result of HIV/AIDS causing significant increases in morbidity and mortality in prime-age adults, increasing negative social, economic and developmental impacts will

occur. As clearly indicated, the economic impact at the household level will be decreased income, increased health-care costs, decreased productivity capacity and changing expenditure patterns. Major survival strategies developed in response to the epidemic may include the altering household composition and withdrawal of savings and the sale of assets, the receipt of assistance from other households.

Not only has that but also high infection rate and growing number of illness and death among citizens characterize the current status on HIV/AIDS epidemic. This has a corresponding social impact on the social welfare of the family and the society as a whole (Tibaijuka, 1997).

On the fact of social network, Tibaijuka (1997) issued that, many sub-Saharan families (for example in Tanzania) and many other parts of the world, individuals have taken much of their expectations of support from their immediate family and ultimately from their much more extended kin group, sometimes called lineage. In the days of the HIV/AIDS epidemic, it was expected that these social units would cope with the burden of orphaning. However, this has turned out to be only partially the case, as numbers of orphans has exceeded the custodians' ability to cope. As a result of the pandemic the elderly are left without the support of grandchildren. Thus, HIV/AIDS disintegrate and destabilize the traditional support systems as younger people die. This becomes a cause of impoverishment for the elderly and the family they are supporting. The pandemic has also destabilized other social function in different societies. For instance in several parts of Africa, funeral practices of long periods of mourning and lavish gatherings of relatives have become difficult to maintain and or sustain. In Kagera Region, labour constraints have caused a shortening of the mourning practices (Tibaijuka, 1997).

Increasingly, people living with HIV/AIDS and AIDS orphan have been discriminated and stigmatized in the household and workplaces/schools, and in the community. Due to stigma associated with the disease and lack of knowledge, the pandemic was found to have direct impact on social relations of the People Living with HIV/AIDS within family members, neighbours, close friends, relatives and co-workers. Elements of discrimination, neglect and problems in marital relations were also observed (Kessy *et al.*, 2004),

2.6 The sustainable livelihood framework

The sustainable livelihood framework has provided quite a clear basis for understanding how HIV/AIDS can impact on various aspects of livelihood in many different ways. Information in Table 2 present an example of indicators developed through participatory processes and pre-testing the livelihood questionnaires used in the project baselines. The framework depicts livelihoods as being determined in the first instance by the range of assets available to the household. Assets are used as a broad term, and five categories of assets or capital are identified (Donnell, 2004). These are: -

Human capital: This represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives. Most obviously, HIV/AIDS attacks human capital. Infected individuals eventually die prematurely. Living but infected individuals are rendered less productive once AIDS emerges, due to a series of opportunistic infections, of which tuberculosis is the most frequent. A scale of the impact on mortality and morbidity is given by numbers on disability-adjusted life years (Haddard and Stuart, 2001).

Financial capital: This is damaged by in a number of ways. Because drug, burial, and related transport expenses become major items in budgets, families need to find ways to maintain current consumption levels. According to Rugalema, (2000), in terms of financial capital services (credit, savings, and insurance), poor families either have to sell stores of value (e.g., jewelry and livestock), assets (e.g., equipment or tools), borrow funds in a sustainable manner, or which seems most unlikely have access to some kind of insurance, health, or otherwise.

Natural capital: The natural resource stocks from which resource flows and services useful for livelihoods are deprived (e.g. lands, water sources, and trees). HIV/AIDS might undermine the ability of communities and user groups to pool risk and act collectively to sustainably manage common property including rangeland, cropland, and river basins. Land use is particularly vulnerable to the loss of prime-age labor. The maintenance of pre-HIV/AIDS cropping patterns becomes more difficult for infected and affected families alike. “Replacement” labor can be found either via social networks or via the labor market. Otherwise less labor-intensive, livelihood-sustaining ways of farming land have to be developed (Rugalema, 2000).

Haddard and Stuart, (2001) explain that if the family can afford not to use the land, this will improve the quality of the land for future cultivation. On the other hand, non-use of land may make the family vulnerable to loss of land rights. As highlighted by those with traditionally weaker land rights (e.g., some women and orphans), getting greater clarity and equity with respect to local property rights are particularly important.

Physical capital: comprises the basic infrastructure and producer goods needed to support livelihoods (e.g. buildings, roads/transport, water supply, communication). The basic infrastructure and productive equipment that are relied upon for the pursuit of livelihood also come under threat due to HIV/AIDS. The possible sale of productive equipment or mortgaging of land in response to large health and funeral expenses has been noted as has the possible neglect of health infrastructure for the poor. As time becomes an ever-scarcer commodity in HIV/AIDS areas, access to water and energy sources must be improved, particularly given the fact that these activities are socially determined to be the responsibility of women who most often care for their family members, irrespective of their HIV/AIDS status (Rugalema, 2000). Clear and equitable delineation of property and land rights become more important as individuals leave their dwellings to search for alternative livelihoods, or to help out friends and families outside of their community. If dwelling or land rights are linked to physical presence, property rights might be impaired, especially if widows and orphans are the primary claimant (Rugalema, 2000).

Financial capital: the financial resources that people use to achieve their livelihood objectives, including stocks (savings, convertible assets, including livestock) and flows of income. Financial capital is damaged by HIV/AIDS in a number of ways. For the reason that drug, burial, and related transport expenses become major items in budgets, families need to find ways to maintain current consumption levels. In terms of financial capital services (credit, savings, and insurance), poor families either have to sell stores of value (e.g. jewelry and livestock), assets (e.g. equipment or tools), borrow funds in a sustainable manner, or which seems most unlikely have access to some kind of insurance, health, or otherwise (Rugalema, 2000).

Table 2: Example of indicators developed through participatory processes and pre-testing the livelihood questionnaires used in the project baselines

Indicator	Explanation
<i>Livelihood outcomes</i>	
Household income and expenditure	This indicator is a proxy for livelihood status
Type of housing	This is an indicator of livelihood status and household assets
Consumption of adequate meals	This indicator measures both livelihood status and coping strategies.
<i>Household Assets</i>	
Livestock sharing (by gender)	This indicator looks at social capital and assets by gender
Sharing of resources between households in extended family and other social networks	This indicator also explores social capital. An example of a shared resource is vegetable seeds.
Affiliation with social and political institutions and individuals	This indicator looks at social capital and patron/client relations
Type of land access	This gives an indication of livelihood status of household as well as production potential of household and ability of household to control land uses and practices.
<i>Livelihood strategies and coping mechanisms</i>	
Primary and secondary occupation of household members by gender and age	This indicator deals with livelihood strategies, and the diversification of these strategies at the household level
Measures taken by households to meet crises	This indicator measures coping strategies and the impact of coping strategies on long-term vulnerability of households.
Recent sales of household assets	This indicator measures levels of capital asset depletion at the household level
Selling labour in advance by gender and age	This is a coping strategy. It appears that the coping strategy is more severe when a woman sells labour in advance.
<i>Intra-household issues</i>	
Participation in household decision making by gender	This indicator looks at control of resources and decision-making at the intra-household level
Participation in marketing of vegetables by gender	This is an indicator of mobility for women and girls

Source: Arif and Westely (2003)

Livelihoods are secure when households have secure ownership of or access to resources and income-earning activities, including reserves and assets to offset risks, ease shocks and meet contingencies. But they also need the support of a community that ensures participation is open to all and that support systems (formal and informal safety nets) do not discriminate against vulnerable groups (Arif and Westely, 2003).

2.7 HIV/AIDS/Livelihood linkages

Livelihood approaches offer a holistic way of addressing the HIV/AIDS epidemic which promote joined up thinking across sectors and disciplines, that can look not just at the time the impact on health but also at the impact on social support, finances, housing, land use and land tenure (FAO 1997). HIV/AIDS affect food security and livelihoods in very different ways for different households. The impacts will vary according to the assets of the households, its demographic composition and the circumstances in question, i.e. whether the chronic illness of a member, the recent death of a member, or whether they are supporting orphans affects them (Donnell, 2004).

Sometimes there are often a greater percentage of AIDS-affected households found to be food insecure compared to the percentage of other households. However (a) there is also high numbers of AIDS-affected households who are not food insecure and (b) there are often higher absolute numbers of un-affected households unable to meet minimum basic needs (food inclusively). (Donnell, 2004). The mechanisms by which households are affected are best understood using a sustainable livelihoods framework, and considering impacts on each of the different types of assets available to the household.

During chronic illness the main effects are: loss of labour due to illness; loss of labour due to increased caring; increased requirements for spending on health care. Death leads to an immediate loss of labour, but can lead to other changes in household composition that can positively or negatively affect labour availability. There can be changes in livelihood patterns as remaining members try to optimise their available assets. This can lead to successful coping, or following a period of unsustainable response (e.g. by selling productive assets) could ultimately result in the dissolution of the household (Donnell, 2004). The economic effects of taking in an orphan depend on the existing composition of the household and then on the age, gender and skills of the incoming orphan, which determines the contribution of the orphan to the household (Donnell, 2004).

2.8 Coping strategies (or simply surviving?) at the household level

Coping strategies are measures for dealing with food scarcity situation. That is the mechanisms communities adopt when faced with food shortages before receiving/seeking external assistance (Ishengoma, 1998). These strategies will vary according to religion, community, social class, ethnic group, household, gender, age and season. The type of strategies employed by household also will vary depending upon the severity and duration of the potentially disruptive conditions (Maxwell and Frankenbeger, 1992).

Household adopt a variety of coping mechanisms and strategies which are not always efficient and effective, due to lack of resources, inadequate institution support, or other factors, to offset the impact of production shortfalls and market uncertainties (Ishengoma, 1998).

There are various stages of coping with these strategies. The first stage involves element of risk minimization such as savings, investments, accumulation of assets and diversification of income sources. The second stage involves divestment of assets, calling in of loans and search for new credit. If adverse conditions persist and adequate external help is not forthcoming, household may have no choice but to sell all their remaining assets, subsist on un usual collected famine foods and migrate to other areas for relief (Ishengoma, 1998). In Table 3 an example of strategies aimed at improving household food security, aimed at raising and supplementing income to maintain household expenditure patterns and strategies aim at alleviating the loss of labour is presented. Availability of food at national level is not translated into household food security. Thus, current literature describes poverty as a situation that emanates from lack of necessary capabilities and entitlement to satisfy human basic needs including food. This situation limits a person from acquiring security and assets, or from having power for decision making.

Furthermore, Wagao (1991) pointed out that in Tanzania residents in rural areas have diversified strategies to lessen the adverse effects of the crisis. Household members cope with food shortages by reducing the frequency and changing the content of meals consumed from either relatives or friends. According to UNAIDS (2004), many changes occurred in the AIDS affected households, including loss of paid employment, increasing borrowing and the sale of possessions. The decrease of revenue from loss of labour is an important impact of AIDS.

UNAIDS (1999) suggests that individuals and households undergo processes of experimentation and adaptation when adult illness and death impacts whilst an attempt is made to cope with immediate and long-term demographic changes. Several factors will

determine a household's ability to cope including access to resources, household size and composition, access to resources of the extended family, and the ability of the community to provide support (UNAIDS 1999). The interaction of these will determine the severity of the impact of HIV/AIDS on the household.

Table 3: Household Coping Strategies

Strategies aimed at improving food security	Strategies aimed at raising & supplementing income to maintain household expenditure patterns	Strategies aimed at alleviating the loss labour
<ul style="list-style-type: none"> • Substitute cheaper commodities (eg.porridge instead of bread) • Reduce consumption of items • Send children away to live with relatives • Replace food item with indigenous/wild vegetables • Beg 	<ul style="list-style-type: none"> • Income • Migrate in search of new jobs • Loans • Sale of assets • Use of savings or investment 	<ul style="list-style-type: none"> • Intra-household labour re-allocation and withdrawing of children from school • Put in extra hours • Hire labour and draught power • Relatives come to help • Diversify source of income.

Source: UNAIDS (1999)

In Dar es Salaam, the annual likelihood of poor households to deal with household crises is very high (Maxwell and Rutakahana, 1997). Majority of the households were hit by a major expense involving a medical bill, festival or ceremonial commitment. Incredibly the minority of the households either the main breadwinner lost his job, abandoned his family or died. Most of the households in Dar es Salaam City indicate a preference to self-adjust as much as possible when dealing with these crises before seeking outside help. Coping strategies most common used begin with eating less costly food. When necessary, adults

will reduce their portion to maintain this for children. Families will cut down on medical expenditures and eventually go without food one day per week (Maxwell and Rutakahana, 1997). The type of shocks experienced does not differ much in the various areas of the city. However, households in peri-urban areas are more likely than others to seek additional sources of income or to go back to their home (Maxwell and Rutakahana, 1997).

2.9 Summary

General overview of HIV/AIDS status and the global situation of HIV and AIDS have been reviewed in this chapter. Also the region specific HIV prevalence among ante natal clinic attendees between 2001/02 and 2003/04 in Tanzania, Others it includes the demographic, social and economic impacts of the pandemic. Furthermore, the sustainable livelihood framework as the analytical framework for understanding how HIV/AIDS can impact on various aspects of livelihood has been reviewed. Also the linkage of the pandemic and livelihood issues; and the coping strategies that the household may use to cope with food scarcity has been review.

Thus, this study looked on socio-economic impacts of HIV/AIDS on household livelihood. Data presenting the crisis of HIV/AIDS to societies that are multi-sectoral impacts of the pandemic have been covered. Moreover a complex set of social, economic and cultural factors coverage to create an environment where people are both vulnerable and susceptible to HIV/AIDS as a result the researcher and AIDS activists advocate for a multi-sectoral response. Therefore this study will help to control optimal resources including human, financial, infrastructure and expertise in Tanzania.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

The purpose of the research methodology is to get details of all the procedures the researcher used and the tasks performed in order to confirm the expected output hypotheses. Its importance is to prepare the whole research process. This chapter outlines the methodology that was used in the study. Where as in section 3.2, the study area and justification for its selection are described; in section 3.3 the research design and its relevance to the study are presented. While the sampling procedure is shown in section 3.4, in section 3.5 an outline of data collection process has been presented. Data processing and analysis have been presented in section 3.6 and finally limitations of the data collection are outlined in section 3.7.

3.2 Description of the study area and justification for its selection

3.2.1 Historical Background

Dar es Salaam which historically means: "Haven of Peace" was a name given by Sultan Sayyid Majid of Zanzibar, who in 1862 wanted to move his capital Bagamoyo to a small port of Mzizima later to be known as Dar es Salaam, reflecting a relaxed and informal atmosphere of its "Citynites". In 1880, the whole coastal line region of Tanganyika was bought from the same Sultan of Zanzibar by German East Africa Company for £200 000; making the area part of the mainland under German Protectorate, later to be known as Tanganyika. In 1899 Major Von Weissman, a German explorer and soldier on this part of the area, was appointed Commissioner of the then German East Africa Company, and

thereafter an administrator for Tanganyika for the German company. Major Von Weissman opted to move the capital/headquarters from Bagamoyo to Dar es Salaam (75 km south), having been attracted by its natural harbour, and armour stored in its various parts. This marked the beginning of Dar es Salaam: "Haven of Peace 1862/99". Dar es Salaam grew rapidly, especially following its reallocation to the German Colonial administration; but stagnated during the inter World War I and II. Currently it is the major city and the centre of Government administration; industry, commerce and banking activities with three Municipalities (see section 3.2.3.).

3.2.2 Justification for its selection

The city was selected because it is full of people with mixed cultures from rural areas and these people often return to rural areas after being affected by HIV/AIDS and thereafter affect the rural areas. Accordingly, rural-urban also urban-rural migration into Dar-es – Salaam is higher compared to other regions of Tanzania. As well it is leading in sexual trade (prostitution), street children, orphans, third top HIV prevalent in Tanzania (11%) and child labour especially young girls as domestic workers who are eventually being exposed to HIV/AIDS which is the first cause of death in the city.

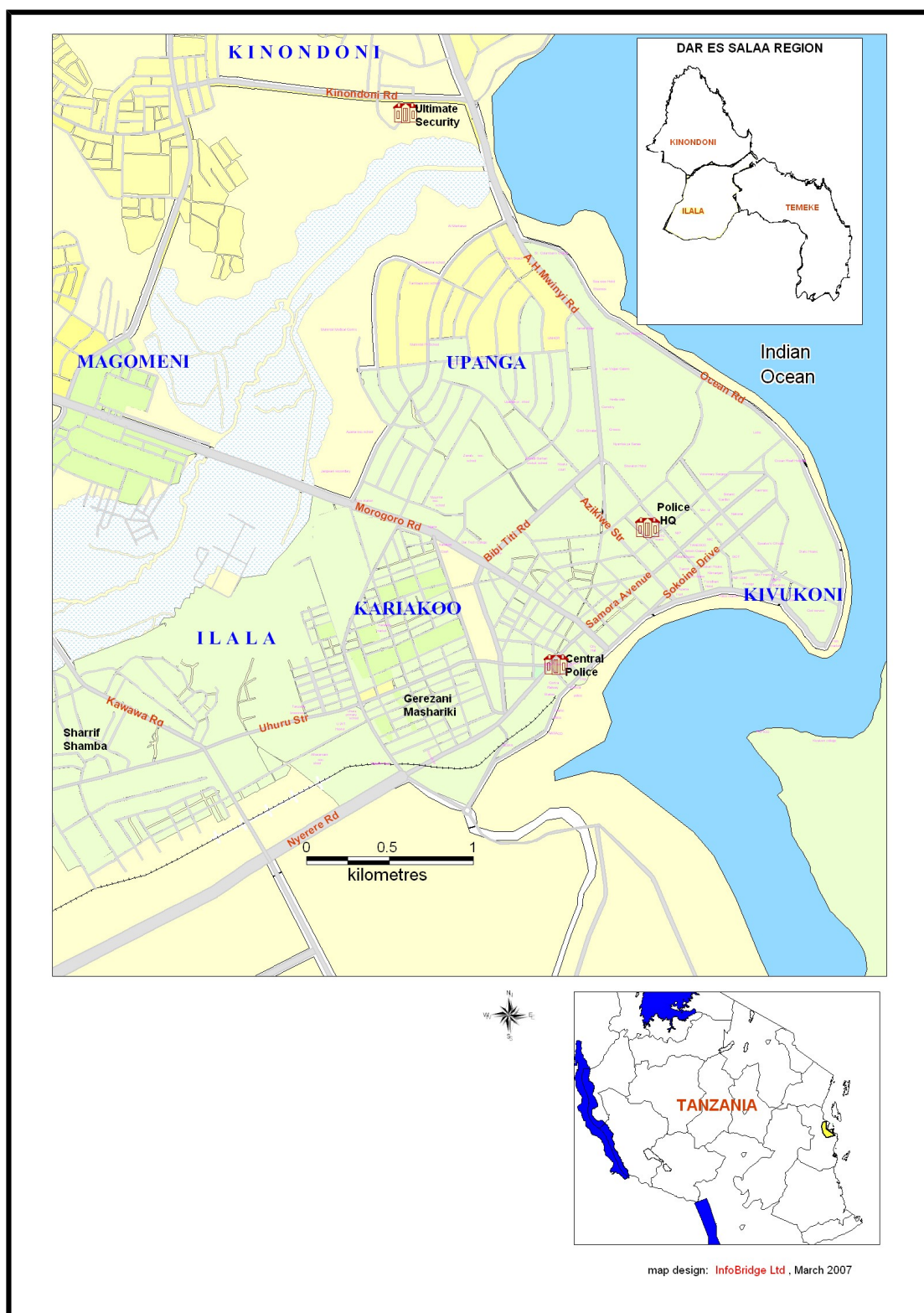


Figure 3: A Map of Tanzania showing Dar es Salaam region

Source (URT, 2003)

3.2.3 Physical characteristics

The City is located between latitudes 6.36 degrees and 7.0 degrees to the south of Equator and longitudes 39.0 and 33.33 degrees to the east of Greenwich. It is bounded by the Indian Ocean to the east and by the Coast Region on the other sides (north, south and west) (URT, 2004).

The total surface area of Dar es Salaam City is 1 800 square kilometers, comprising of 1 393 square kilometers of land mass with eight offshore islands, which is about 0.19% of the entire Tanzania Mainland's area. Temeke Municipality has the largest land surface area followed by Kinondoni while Ilala has the smallest area. Distribution of the total land mass by municipality (districts) in the city is Ilala 210 square kilometer, Temeke 652 square kilometer and Kinondoni 531 square kilometer total 1 393 square kilometer (URT, 2004).

The City experiences a modified type of equatorial climate. It is generally hot and humid throughout the year with an average temperature of 29°C. The hottest season is from October to March during which temperatures can raise up to 35°C. It is relatively cool between May and August, with temperature around 25°C. In a normal year there are two distinct rainy seasons, a short rain season from October to December and a long rain season between February and May. Being situated so close to the equator and the warm Indian Ocean, the city experiences generally tropical climatic conditions, typified by hot and humid weather throughout much of the year. The average rainfall is 11000mm (lowest 800mm and highest 1300mm) per annum. Humidity is around 96% in the mornings and 67% in the afternoons (Wikipedia, 2007). The climate is also influenced by the south-westerly monsoon winds from April to October and north-westerly monsoon winds between November and March. The City is divided into three ecological zones, namely the

upland zone comprising the hilly areas to the west and north of the city, the middle plateau, and the low land including Msimbazi valley, Jangwani, Mtoni, Africana and Ununio areas. The main natural vegetation includes coastal shrubs, Miombo woodland, coastal swamps and mangrove trees.

3.2.4 Administrative set up

Dar es Salaam has a unique status, being the major City of Tanzania and the center of Government administration, industry, commerce and banking activities, despite the Government decision to move its capital to Dodoma. Dar es Salaam is also the major port City of Tanzania. It has more than 575 major industrial establishments, a Central Bank, Commercial Banks, foreign exchange bureaus, Insurance companies (including one state-owned) and the Dar es Salaam Community Bank, a Microfinance Bank jointly started and owned by City Council and the three Municipalities (URT, 2004).

Administratively, Dar es Salaam has a regional administration headed by Regional Commissioner and a City Council administration headed by the Mayor of Dar es Salaam. The City has three Municipal Councils namely, Ilala, Kinondoni and Temeke. The three Municipalities are also the three districts of Dar es Salaam Region. Figure 3 presents a map of Tanzania showing Dar es-Salaam Region and its districts.

3.2.5 Demographic characteristics

Based on the 2002 Population and Housing Census, Dar es Salaam had 2 487 288 inhabitants, of whom 1 254 853 were males and the rest females. Of the three Municipalities, Kinondoni had the highest population with a total of 1 083 913 inhabitants, followed by Temeke with 768 451 and Ilala with 634 924 inhabitants (URT, 2004).

The City was originally dominated by Zaramo and a few other tribes especially Ndengereko and Kwere. However, due to urbanization many people of different ethnicity and origins have migrated to the city in big numbers. This has caused an undefined cultural change.

The city's population grew from only about 3 500 in 1867 to 128 742 in 1957, to 272 821 in 1967 and to 843 000 in 1978. The 1988 census recorded the city's population to be 1 360 850. The relatively high population growth rate is due to increased birth rates, immigration rates, and more significantly by transient population. The population growth rate for Kinondoni Municipality was 4.1 percent while Ilala and Temeke Municipalities recorded growth rates of 4.6% (URT, 2004).

Migration rate for permanent dwellers is considered to be 10% annually and for transient population the rate is about 1 000 000 per annum. Fertility is on the decline as revealed by the falling Crude Birth Rates (CBR) and Total Fertility Rates (TFR) reflecting the rising age at first marriage and greater awareness of family planning. The current Crude Birth Rate of 40/1000 means that for each one thousand population there are forty births. As per World Bank Century Study carried out in 2002, crude death rate is 14/1000 (URT, 2004). This means there are 14 deaths per thousand populations.

3.2.6 HIV/AIDS and related institutions

In Dar es Salaam city there is a number of governmental and non-governmental organization dealing with HIV/AIDS. Dar es Salaam region is the third region (10.9) with high prevalence of HIV/AIDS after Iringa (13.4) and Mbeya (13.5). The prevalence of HIV/AIDS in Tanzania is 7 percent (TACAIDS *et al.*, 2004).

For example Service Health and Development for People Living with HIV/AIDS (SHIDEPHA) and the Centre for Counselling, Nutrition and Health Care (CONSENUTH). Three non-governmental organizations dealing with HIV/AIDS were selected in this study based on the city's districts to get affected households within the district. These include:-

- Pastoral Activities and Services for People with AIDS Dar es Salaam Archdiocese (PASADA). It is a non-governmental organization located at the junction of Chang'ombe and Mandela Roads, Temeke District in Dar es Salaam City. Its main goal or objective is to provide dignified, compassionate care to those living with HIV and to assist in prevention efforts throughout Dar es Salaam. Types of activities offered includes advocacy, research, Information Education and Communication service, home care, counselling, income generation, behavioural change, orphan care and capacity building. Source of funding is internal/local donors and external donors.
- *Walio katika Mapambano na UKIMWI Tanzania* (WAMATA) in English translation means People in the fight against AIDS in Tanzania. It is also a non-governmental organization located at Mikocheni B', Kinondoni District in Dar es Salaam city. Its main objectives are to reduce the spread of HIV/AIDS transmission and to support people who are already infected psychologically, socially, physically and economically. Types of activities offered include counselling, home based care, material support and orphans support. Source of funds is from external donors.
- Tanzania Network of Women Living with HIV/AIDS is a non-governmental organization located at Kariakoo, Ilala district in Dar es Salaam city. Its main objectives are: (i) to provide quality education at pre-school, secondary and non-formal levels (ii) to actively encourage gender awareness for women empowerment, access to education, health and HIV/AIDS problems (iii) to revive and promote

community participatory approach as a way of capacity building to fight ignorance, poverty and diseases, environment depletion and family planning issues (iv) to establish world wide linkage for community based sister ship for exchange of experience and networking for the improvement of community life. Type of activities offered includes counselling, education, technical support, information centre and home based care.

3.3 Research design

A cross sectional design study was used in this study. The design allows data to be collected at a single point in time and can be used for a descriptive study as well as determination of relationship between variables (Bailey, 1995). Limited resources and time justify the use of the selected design (Casley and Kumar, 1988). Not only that but also this design is relevant for producing good results.

3.4 Sampling procedures

3.4.1 Sample size

A total of 90 samples were collected by the researcher to present the whole population in Dar-es-Salaam City. This is to justify the statistical analysis and limitations for selecting households affected by HIV/AIDS. Samples were collected in three districts namely Kinondoni, Ilala and Temeke. Both affected (15) and non affected (15) households were collected in each district to avoid biasness from one district and another. With the help of two facilitators and volunteers from the institution i.e. PASADA, affected household were identified preceding the assessment exercise. Moreover, during the interview households having people with long/ recurring illness and those households had lost one/more members were included.

For the case of non-affected households, local government officers were used as the entry point to the community. Therefore 15 respondents were from Ilala, 15 respondents from Kinondoni and 15 respondents from Temeke District. Therefore a total of 45 non-affected samples were collected. For the purpose of the study a household is a unit of inquiry (normally resident); this was adopted according to the following definitions:

A one-person household

Is a person who occupies a household unit and makes provision for his/her own food or other person to form a multi-person household (TFNC, 2005).

A multi person household

A multi person household is a group of two or more people who occupy the whole or part of one housing unit and make joint provisions for food or other essentials for living. Domestic servants living in the same housing unit are included in a multi person household (TFNC, 2005).

Affected Household

Affected households were defined as whether the household has a chronic ill person; experienced death due to HIV/AIDS; or supporting orphans whose parents died of HIV/AIDS.

Non-affected household

Non-affected households were defined as whether the household has not a chronic ill person; not experienced death due to HIV/AIDS; or not supporting orphans whose parents died of HIV/AIDS.

Household Livelihoods

Livelihoods are secure when households have secure ownership of or access to resources and income-earning activities. These include reserves and assets to offset risks, ease shocks and meet contingencies including coping mechanisms and the use of assets of poor households to manage the shocks and stresses to household livelihoods. But they also need the support of a community that ensures participation is open to all and that support systems (formal and informal safety nets) do not discriminate against vulnerable groups. Household livelihood security has become care's basic framework for programme analysis design, monitoring and evaluation (Maxwell *et al.*, 2007). Since the socioeconomic impacts of HIV/AIDS are complex, household livelihood security provide a sustainable framework for analyzing and understanding the web of social and financial capital.

3.4.2 Sampling techniques

Three methods namely purposive, snow-ball (referral) and multistage sampling techniques were employed for the selection of 90 respondents in the study area. Purposive and *snow-ball* (referral) sampling techniques were employed for the selection of individual respondents affected by HIV/AIDS. In the first stage two respondents of desired characteristics were identified from PASADA.

These two were also working with other institutions like WAMATA and Tanzania Gender Network of Women living with HIV/AIDS as volunteers for counselling and training people living with HIV/AIDS. After the interview of these volunteers the respondents were asked to lead the researcher to another 43 subjects that they thought had the same characteristics in such a way that 15 were from WAMATA, 13 were from PASADA and 15 were from Tanzania Gender Network of women living with HIV/AIDS. Therefore in

this study the initial subjects lead to additional subjects. The method was repeated until 45 respondents were obtained selected.

Multi stage sampling techniques was employed to select 45 non-affected households. Three districts were purposively selected (Kinondoni, Ilala and Temeke), while three wards (namely Segerea, Mbagala and Sinza) and three streets (namely Tabata Kinyelezi, Mbagala Kuu and Sinza B) were randomly selected (see Appendix 2). Purposive and multistage sampling techniques were employed to select households not affected by HIV/AIDS because this technique is convenient for studying a large and diverse population, as well as population whose actual indicators to be studied are not available (Casley and Kumar, 1998). Additionally, the technique reduces incidences of travelling for interview and hence the corresponding cost (Casley and Kumar, 1988).

3.5 Data collection

For the household interviews, data were collected by house to house visit. Consent of interviewee was sought before (beginning) the interviews. Privacy and confidentiality of collected data were maintained.

3.5.1 Primary data

The primary data collection in this study was mainly based on a surveyed questionnaire. As shown in Appendix 1 a structured questionnaire containing both open and closed-ended questions to get original data was used.

Open-ended questions which are likely to receive a long answer were used because they require the respondent to think and reflect, give opinions and feelings, and they control the

conversation to the respondent. Closed-ended questions which could be answered with a single word or short phrase were used because they give facts, are easy to answer, quickly to respond and keep control of the conversation with the questioner.

3.5.1.1 Survey questionnaires

A structured questionnaire was used as a tool for interviewing heads of households although other members of the households were used to supplement information. The questionnaire was designed to permit acquisition of both quantitative and qualitative information. Using open and closed ended questions the questions were formulated in English and translated in Swahili to facilitate easy communication during data collection. The focus was to determine the impact of HIV/AIDS on household livelihoods in relation to the study's objectives.

3.5.1.2 Key informants approach

The researcher used the key informants' approach, in order to ensure the validity and reliability of this study. Respondents were interviewed under this approach using checklist. Checklist information was collected from the organizations dealing with HIV and AIDS prevention. These include Tanzania Network of Women Living with HIV/AIDS, PASADA and WAMATA. A male and female key personnel's with advanced and degree level education were interviewed so as to be familiar about HIV/AIDS in the study area. These were selected because they have a lot of experience in the institution. Information obtained revealed that in Dar es Salaam there were some institutions that provided care associated with households' livelihood. These included orphans support, counselling, and building capacity of NGO's and CBO's members, advocacy, treatment, literacy and preparedness.

3.5.2 Secondary data

Secondary data were obtained from existing published and unpublished information/literature. They were also derived from Sokoine University of Agriculture Library (SNAL), UN Information Centre, TFNC library and TACAIDS as well as from electronic database such as CD-ROMs and websites. These were used to increment information obtained from the field.

3.6 Data processing and analysis

Data were entered, coded and analysed using the Statistical Package for Social Science (SPSS) version 11.5-computer programme. Validity check for each variable under study was made for inconsistencies, illogical entries and improbable value. Descriptive statistics particularly means, frequencies and percentages were computed. Cross tabulations involving chi-square test were used for bivariate analysis to test associations and relationships between different pairs of variables of the HIV/AIDS affected and unaffected households. The 5% level of significance was used for testing hypotheses. Some variables in this study were analysed by constructing an index with a compute statement. Hence the social and economic impacts of HIV/AIDS on households' livelihoods was analysed and evaluated in comparison with the commonly used information from UN Information centre, TACAIDS and SNAL.

3.7 Constructing an index variable (composite variable)

Composite variable is the measurement of combined variables from multiple indicators. Issues related to the measurement, distributional and structural properties of data typically obtained in applied education, epidemiological and psychological researches are not well understood. Nonetheless, these issues are neither minor nor benign; indeed they are vital.

Good research is entirely dependent on quality theoretical and conceptual foundations. A theoretical research invariably leads to the conflation of ‘theory’ via the generation of inductively derived ‘findings’ that are often spurious and invalid. Most theories and models in applied psychosocial research are formulated in terms of hypothetical constructs (or latent variables) that are not directly measurable or observable (Rowe, 2006).

As a means of data reduction, justifies the use of composite variables such as assets ownership, food security and ability to pay rent and or own electricity and a house, and conditions for the house from several observed indicators (or response items), each requiring responses dichotomous (i.e. 0 or 1 meaning have not and have respectively). Traditionally and mostly using composite scores have been computed as factor scores, or as simple, unit-weighted, additive indices of their indicators, regardless of either the measurement or distributional properties of the constituent indicators, or their relative contribution to the composite score. Typically, the composite scores are then treated as continuous variables in omnibus general linear model, which assumes that such variables are measured without error.

This approach leads to at least two major problems when trying to model relationships among composite scores, or to compare their magnitudes. First, the unit weight addition of indicator variables in the formation of the scale scores ignores the possibility that some unit-weight addition of indicators may contribute more to the measurement of the scale scores than others. Second, the unit-weight addition of indicators may ‘measure’ a construct other than the one under consideration.

There are many ways of constructing an index variable. However, usually two main methods are recommended and widely used. These are constructing an index with a Compute statement and constructing an index with a Count statement. The researcher used an Index with a Compute statement to construct one indicator of household livelihoods with given variables within the SPSS dataset. This approach was used because it helps in the development of activities that focus on the relationships between poverty policy development and sustainable livelihoods.

3.7.1 Constructing an index with a compute statement

The creation of an index for a different concept would likely require a number of different procedures than those described here: i.e., the inclusion of different variables, the dropping of different categories, and so on. None-the-less, there is still a need to follow the same general procedures as described here:

- Dropping unusable categories,
- Dealing the missing value categories, and
- Developing a compute statement for summation to create the index.

Section 4.3.2 describes more on how the index with composite variable was constructed.

3.8 Limitations of the study

During the survey the following problems were encountered:

- a) This research was done on private sponsorship basis. This being the case, the researcher and two assistants had to spend a lot of time walking on foot from one household to another during data collection instead of using reliable transport such as public transport, using *daladala* or motorcar (private/hired) and employing an adequate number of assistants.

- b) It was difficult to meet key informants from the institutions as they were very busy and most of the time had other commitments outside their offices. When available they insisted to their secretaries that they had enough students to do research at their institutions and also expressed worries with regards to the maintenance of confidentiality of their clients who were the respondents. As such other key informants such as social workers had to be included as key informants. Not only that but also the researcher was forced to use volunteers (affected) available in the respective institution without official appointment to get respondents affected by HIV/AIDS.
- c) Sometimes, non-affected respondents were panicked as to why they were being interviewed in a study concerned with HIV/AIDS; '*umetuona kuwa nasi tuna Ukimwi*' with a literal translation is translated as "have you regarded us as affected by HIV/AIDS". In such situations, the researcher had to spend a lot of time explaining the purpose of the study before undertaking the interviews.
- d) Sometimes, affected respondents asked for payment as they thought that currently HIV/AIDS issue is "a big deal". They argued "There are a lot of funds donated to HIV/AIDS programs". To address this problem the interviewees had to be requested by the interviewer to collaborate without any payment since the study is for academic purposes under private sponsorship and thus the researcher had no funds for rewarding them.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Overview

This chapter presents results and discussion on socio-economic impacts of HIV/AIDS on household livelihoods. The first section describes the basic demographic and socio-economic characteristics of the sampled respondents. While the second section explains the determination of household livelihoods, the third section describes the social impacts of HIV/AIDS on household livelihoods. The fourth section describes about HIV/AIDS and household livelihood and the fifth section describes the coping mechanisms the households used with regards to food security.

4.2 Characteristics of the respondents

This section provides a brief description of some demographic characteristics (age, sex and marital status and family size); and socio-economic characteristics of the sampled respondents. The aim of this section is to describe the general characteristics of both affected and non-affected heads of households. The characteristics of a given household have important social and economic implications to the sustainability of household livelihoods.

4.2.1 Demographic characteristics of the respondents

Parameters described include age, sex and marital status; and family size. Household characteristics also are important variables on socio-economic factors and use of available resources (Mwakalobo, 1998). They provide an understanding of the general social and cultural behaviours and attitude of people in the area (Kagosi,

2001 in Nguya, 2005). Therefore, description of the household characteristics provides the general understanding of the people studied. Age, sex and marital status are important demographic variables and are primary basis of demographic classification in vital statistics, census and surveys (TDHS, 2005). They are also very important variables in the study of mortality, fertility and marriage. These findings are summarised in Table 4.

The present study comprised a sample of 45 affected and 45 non-affected heads of households. In this study the respondents were requested to mention their age. Respondent's ages ranged between 17 and 80. Results show that majority of affected respondents were between 21 and 42. These groups belong to the group of economically productive and sexually active people. In non-affected respondents majority ranged between 54 and above followed by the range of 43 and 53.

From the point of view of sex of the respondents, results show that more than half of the respondents (70%) interviewed in affected households were female and the remaining 30% were male. For the case of non-affected households nearly half (53%) of the respondents were male and the remaining half (47%) were female. Therefore in affected households a female-headed household is higher compared to male headed household while in non-affected households, male and female-headed households were almost similar.

Table 4: Age sex and marital status of the respondents in % (N=90)

Characteristics	Affected (n=45)	Non-affected(n=45)	Total	Chi-square
Age groups				
10-20	3.4	8.3	6.0	0.012*
21-31	30.5	16.5	23.5	
32-42	27.1	14	20.6	
43-53	22	28.9	25.5	
54 and above	16.9	32.2	24.5	
Sex				0.027*
Male	31.1	53.3	42.2	0.003*
Female	68.9	46.7	57.8	
Marital status				
Single	22.2	17.8	20	
Married	62.2	62.2	62.2	
Divorced	-	6.7	3.3	0.000*
Separated	-	13.3	6.7	
Widow	15.6	-	7.8	
Family size				
Less than 5	33.3	84.4	58.9	
5-10	66.7	15.6	41.1	
10 and above	-	-	-	
Total			100. 0	

ns not statistically significant

**statistically significant($p \leq 0.05$)*

Further more respondents were requested to state their marital status, which is whether single, married (those in legal marriage partnership or living together) or whether they were widows/widowers, separated, divorced. Marriage is an important factor of exposure of women and men to sexual intercourse, which is the leading mechanism for HIV infection in Tanzania (TACAIDS *et al.*, 2005). In this report the term “marriage” refers to both formal and informal unions. Informal unions are those in which a man and woman stay together, intending to have a lasting relationship, even if a formal, civil or religious ceremony has not been conducted. The demographic significance of marriage patterns derives from the fact that formal or informal unions are primary indicators of exposure to

the risk of pregnancy and HIV infection (TACAIDS *et al.*, 2005). In this study the results revealed that over half of the respondents were married and about 20% were single. Exception has been observed in non- affected households that, about 10% and 6% respondents were separated and divorced respectively. In affected households, nearly 16% were widowed and none were found widowed in non-affected households. Basing on the affected group, more than half of the respondents were married the remaining half were single, divorced, separated and widows.

Family size has been analysed by considering the number of individuals in the household. The size of the family was grouped into three groups basing on the Tanzania Demographic Healthy Survey (2005) i.e. less than five, between five and ten; and above ten. Majority (60%) of affected households have household members ranging between five and ten. In non-affected households more than three fourth (80%) have household members less than five. Majority of respondents in affected households have household members between 5 and 10. However, between the two groups affected households have high number of members compared to the non-affected household. Hence, there may be high number of people who migrate to care for the sick person or console the widow.

4.2.2 Socio-economic characteristics of the respondents

This sub-section provides a brief description of some socio-economic characteristics of the individual respondents. This includes education and occupation. Information regarding characteristics of individual is essential for interpretation of survey findings.

Education is important factor in society. It is a key determinant of the lifestyle and status

an individual enjoys in a society. Studies have consistently shown that educational attainment has a strong effect on reproductive behaviours, contraceptive use, fertility, infant and child mortality, morbidity, and attitudes and awareness related to family health and hygiene (TDHS, 2005) Summary of the findings is provided in Table 5. Data show that there is variation in educational levels attainment between the two groups. Majority of respondents have attained primary and secondary school education. At the college and university level non-affected households exceeded affected households by nearly 12%. The percentage of respondents with no formal schooling is almost similar by 10% for affected and non-affected respondents. Therefore illiteracy among the respondents is very low since majority of the respondents, have attained primary level of education. Majority of the respondents were able to read and write at a level of adequate communication, or at a level that lets one understand and communicate ideas in a literate society. According to Wikipedia (2006), being literate is related to wealth. The higher person's level of literacy the higher their potential earning. The condition of wealth and literacy are highly correlated, but it is important not to conflate literacy with wealth.

Table 5: Education of respondents in (%) N= 90

Education level	Affected H/hh	Non-affected/hh	Total	Chi-square
No formal schooling	13.3	17.8	15.6	0.037*
Primary schooling	64.4	40	52.2	
Secondary schooling	15.6	28.9	22.2	
College/University	2.2	13.3	7.8	
Adult education	4.4	-	2.2	

ns not statistically significant

** statistically significant($p \leq 0.05$)*

4.2.3 Occupation of the respondents

Respondents were asked if they were working at the time of the survey and if not, whether

they had done any work in the past five years. Thereafter a linkage could be made with the impacts of HIV/AIDS on household livelihoods. Occupation status of respondent was required to present information as a source of income for the particular households. Table 6 show results of the occupation status of the respondents in the past five years. The types of occupation done by both affected and non-affected household have been presented in Figure 4.

Table 6: Main occupation of respondent (past) (%) N=90

Occupation of respondents'	Affected H/hh (%)	Non affected H/hh	Chi-square
Salary	17.8	37.8	0.000*
Business	68.9	22.2	
Cultivation	13.3	26.7	
Others	0.0	13.3	
Total	100.0	100.0	
<i>ns not significant</i>		<i>* statistically significant ($p \leq 0.05$)</i>	

Literature shows that stable and reliable sources of income is a guarantee to a household against shocks such as drought, floods and other natural calamities as well as diseases and deaths of one or more family members (Sen 1980, UNAIDS 1999 in TFNC, 2005). Respondents were probed, if they were working at the time of the survey and if not, whether they had done any work in the preceding five years. Those worked were asked about their major type of activity/occupation.

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Figure 4: Distribution of respondents by occupation status in the past 5 years before the survey.

Data show that most of the affected respondents reported salary jobs in the past five years following business activities. Most of non-affected households reported salary job followed by cultivation, business (petty business like local grocery, food vender and plating hair) and lastly other activities such as wage labour, which occurred by chance.

Table 7: Main occupation of respondent during the survey in (%) N=90

Occupation of respondents'	Affected H/hh	Non affected H/hh	Chi-square
Not employed	4.4	2.2	0.000*
Salary	2.2	24.4	
Business	80.0	24.4	
Cultivation	6.7	20.0	
Others	6.7	28.9	
Total	100.0	100.0	

ns not significant

** statistically significant ($p \leq 0.05$)*

In non-affected households, it was noted that majority leave their jobs after being affected and in most cases unwillingly were thus forced to start petty business. This may be caused by the fact that a person after being affected in most cases becomes an income user and not an income producer for the company or institution or household.

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Figure 5: Distribution of occupation status of respondent during the survey

More than three quarter of affected households were doing petty business and the remaining 10% were doing other activities such as salary jobs, cultivation, and wage labour. As presented in Figure 5 and Table 7 the linkage of occupation for people with HIV/AIDS is significant at chi-square 0.000 i.e. ($p < 0.05$).

This can be proved by the discussion made by one of the affected respondents that he was working but after the employer had discovered that he was affected by HIV/AIDS; it was end of the job. *“The employer just found a small mistake in order to terminate the contract of my employment but I knew the reason”*. The occupation status of the heads household may affect or reflect social factors, by a tendency for better education of the head of the households to be more attentive to social and economic needs of the families as well as being more receptive to distribution of resources.

4.3 Determination of household livelihoods

4.3.1 Household livelihoods

Establishment of livelihood status of the household was one of the key objectives in this study. In order to achieve this objective the study constructed an index with composite variable concerning household livelihoods. The household livelihoods data such as household assets; housing condition; source of water; number of meals per day; and ability to own and pay rent for the house and electricity (power source) and ability to pay medical expenses were used to develop a composite/compound index.

Since none of the above mentioned variables the researcher terms to be better than the other there is a need of making an argument by constructing an index of these variables to represent elements of household livelihoods. Furthermore, since the concept of ‘livelihood’

is rather a broad concept to combine these variables into a single composite score (index) would be better so that a full range of concept of 'household livelihood' would be covered rather than using a single one of these variables to measure household livelihood. Therefore this justifies the use of multiple indicators as cross checks on inference based on any single one. This was done so as to avoid a debate about the sufficiency of them as a measurement for households' livelihoods. Livelihoods are complex and are influenced by a wide range of external forces, social, economic, legal, political environmental and political environment (Blaikie *et al.*, 2006) are important ways in which vulnerabilities interact with each other, with most households, and especially the poor, facing multiple vulnerabilities that compound each other in terms of both the impact of specific events and the capability of households to recover from these events. This helps to make household livelihood understandable and agreed that each variable is associated with households' livelihoods. That is, they have face validity.

Literature suggests that 'a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Blaikie *et al.*, 2006). According to Barrett *et al.*, 2001, literature on livelihood diversification behaviours lacks common definitions or well-established conventions on the collection or classification of data or on the use of indicators to capture observed livelihood diversification behaviours.

Therefore the concept of "household livelihoods" is a rather broad concept, the combination of these variables into a single composite score (i.e., an index) is important so

as to cover a full range of meanings included in the concept of “households’ livelihoods,” rather than just using a single variable to measure “households’ livelihoods.”

4.3.2 Creating an index for household livelihood

In this study, the researcher used about thirty six variables to construct an index. These include medical expenses, number of meals per day, mode of owning the house, availability and access to pay for electricity, meet living expenses. Others include mode of owning the plot, radio, table, metal bed, wood bed, clothes cupboard, utensils cupboard, television, watch, refrigeration, bicycle, kerosene lamp, mattress, public tap, public well, well in a residence, and tap in a residence; It also include housing condition such as wall, burnt bricks and concrete blocks; thatched, asbestos tiles and corrugated iron sheets; sand, wood plank and cement floor; wood doors, iron doors, and grass doors; motorcar and pressure lantern.

Based on the questions about these variables a recode statement was done to allow dropping out of those values or attributes within the variable that were not used for our index. Through recoding the direction of the values was changed; 1 or 2 meaning have and have not respectively. Additionally the original coding scheme suggests that lower scores refer to better off household. The summation and grouping of these responses was done to make actually two possible responses. The researcher effectively created quartiles cut off points for household livelihood as shown in appendix 5.

The grouping into two categories (poor and rich) was formed. Therefore, respondents could either be categorized as better off livelihood condition if scores less or equal to 1.33 and poor livelihood condition if scores above 1.33. In order to

make “index score” more logical higher than 1.33 score reflect poor household as seen in Appendix 6.

Further more mean and standard deviation of livelihood variables for affected and non-affected households were calculated as shown in Appendix7 and 8. This final score represents the composite score (i.e., the index score), and this compute statement was applied to test the hypothesis in the data set as shown in Table 23.

4.4 Social impacts of HIV/AIDS on households’ livelihood

This section discusses about the social impacts of HIV/AIDS on households livelihoods. The social impacts discussed here are such as integration of people in the community, inheritance, remittance, parental care, and migration.

4.4.1 People’s integration and HIV/AIDS

People’s integration and HIV/AIDS in a study area was identified by asking a question “To whom among the neighbours, friends, relatives and households members have they disclosed because of HIV/AIDS” status. The question wants to determine if HIV/AIDS status have influence on people integration or not. If “yes”, to whom among the community members there is less integration than the other as shown in and Table 8 and Figure 6 .

Table 8: Integration of people affected by HIV/AIDS in the study area (%) N=45

People’s integration	Affected households	Total	X ²
Household members	42.2	21.1	0.000*
Relatives	6.7	3.3	
Friends and Neighbours	51.1	25.6	

Total	100.0	50.0
-------	-------	------

ns not statistically significant

** statistically significant ($p \leq 0.05$)*

Survey results shows that more than half of the affected households had disclose their status of HIV/AIDS to their friends and neighbors (51.1%), about 42% had disclose the HIV/AIDS status to their household members and about 5% disclose to their relatives living away from their homes. Results are significant at ($p < 0.05$). This shows that there is less integration of people within the study area. In most cases it occurs to relatives of people affected by HIV/AIDS, followed by household members who are very close to them and lastly friends and neighbours. For example through probing, people refused to buy doughnuts (*maandazi* in Swahili) cooked and sold by an affected person. This may be supported by literature that, in Tanzania, like other countries in south of Sahara, stigma against HIV/AIDS remains very strong and plays a major role in fuelling HIV infection (URT, 2001). Stigma and discrimination are two serious negative consequences that those affected with HIV/AIDS suffer. In this study, most of the members in the affected households put at risk their friends, neighbours, job and social status to disclose their HIV status. This shows in the study area perception of people on HIV/AIDS is shaped by a wide variety of factors including prevalence and reporting of HIV/AIDS stigma; and understanding the source of illness and misfortune.

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Respondents were asked, when it happens that one of the household members have/had lost his/her partner where does the widow go. In the case of affected households who have experienced death, the researcher discovered that the percentage of the widows inherited after losing the partner is great. These results are significant ($p < 0.05$). As shown in Table

4.4.2 Where does the widow go after loosing a partner?

More than half of the widows (58%) were inherited after losing their partner. More than a quarter (29%) vacates the place and about 13% remain in their usual place. This means that cultural inheritance of the widow exists in the study area. It therefore impacts household livelihood because it continues to affect the widow (and the household as well) psychologically, socially and economically. That is the dissolution of the unit (households) due to loss of individuals from HIV/AIDS death may reflect the dissolution of the loved one, household assets human resource, and income earned by the household hence poor household livelihood.

Cultural practices such as widow inheritance and ritual sexual purification reflect some of the inequalities that women experience. Although such practices change slowly, there is some evidence that the epidemic is leading to changes in some of these traditions. Assisting individuals and communities in understanding the different vulnerabilities to the epidemic of women and men is an important part of enhancing gender equality (DFID/FAO, 2000).

Table 9: Where does the widow go after lose the partner (%) N=45

Response	Affected hh	Total	X ²
Inherited	57.8	21.1	0.000*
Remain in her usual place	13.3	13.3	
Vacate the place	28.9	15.6	
Total	100.0	50.0	
<i>ns not statistically significant</i>		<i>* statistical significant(p≤0.05)</i>	

4.4.3 Remittance

Both affected and non-affected respondents by HIV/AIDS were requested to state if they were able to give and or support material(s) and or monetary remittance to their relatives living away. The question wanted to investigate the social and economic stability of the households among affected and non-affected respondents.

Results show that nearly three fourth of both affected (62%) and non-affected (73%) respondents were able to give and or to support materials and or monetary remittance to their relatives living away from their own resources. More than a quarter of both affected (38) and non-affected (27) respondents were not able to support materials and or monetary remittance from their own resources (see Table 10). This is statistically significant at ($p < 0.05$). Therefore the social and economic stability of affected and non-affected households do differ significantly. Hence, this reflects that livelihood status of affected households is not (or fairly) economically and socially stable and that of non-affected households are economically and socially stable.

Table 10: Ability of the household to give or support material and or monetary remittance (%) N=90

Response	Non-affected hh	Affected hh	Total	X ²
Yes	73.3	62.2	67.8	0.0259*
No	26.7	37.8	32.2	
Total	100.0	100.0	100.0	

ns not statistically significant

** statistically significant ($p \leq 0.05$)*

Furthermore, data in Table 11 specify what type of material and or money the households were able to give and or to support. The materials specified were such as food, clothes, medicine and money. This was a follow-up question from table 10. This aspired to determine the existing social and economic class of the households whether better off,

moderate or poor).

Table 11: What type of material did the family able to give and or to support relatives living away? (%) N=90

Response	Not affected hh n=45	Affected hh n=45	Total	X ²
Not able	26.7	37.8	32.2	0.362 ^{ns}
Food and clothes	53.3	53.3	53.3	
Financial support	17.8	8.9	13.3	
Both financial and food	2.2	0.0	1.1	
Total	100.0	100.0	100.0	

ns not statistically significant

** statistically significant ($p \leq 0.05$)*

Moreover, data Table 11 clearly show that nearly a quarter of the respondents were not able to give and or support any material for both affected and non-affected households. About half of them were able to support materials such as food (for example home garden foods like bananas, sugar cane, and poultry) and clothes. Disparity has been observed on financial support that few respondents were able to give financial support. However higher proportions were found in non affected (18%) than in affected households (9%). Almost all respondents were un-able to give and or to support both materials and money although about 2% of non-affected respondent identified being able.

Table 12: Ability of the households to receive materials and or monetary remittance

Response	Not affected/hh	Affected/hh	Total	X ²
Yes	46.7	53.3	50	0.337 ^{ns}
No	53.3	46.7	50	
Total	100.0	100.0	100	

ns not statistically significant

** statistically significant ($p \leq 0.05$)*

The researcher was also interested to know if the respondents were able to receive

materials and or monetary remittance from their friends and or relatives living away. About 47% of non-affected households were able to receive materials and or monetary remittance to their friends and or relatives living away and more than half were not able to receive material and or monetary remittance. For affected households about 53% were able and 47% were not able to receive materials and or monetary remittance to their relatives living away as seen in Table 12. But this is not statistically significant.

4.4.4 Parental care

The survey also included questions about care and support that were administered in households. In this context, the question was asked as to whether the household had received care from the parents, older child or any free external support other than that from family (relatives or friends). The type of care or support was detailed: medical support, emotional support (example companionship, counseling), material support (food, clothes), practical support (help with house work, legal services), and support with schooling.

Table 13: Parental care (%) N=90

	Non-affected hh n=45	Affected hh n=45	Total	X ²
Parent	82.2	91.1	86.7	0.058 _{ns}
Relatives	2.2	6.7	4.4	
Older child	15.6	2.2	8.9	
Total	100.0	100.0	100.0	

ns not statistically significant

**statistically significant($p \leq 0.05$)*

Data in Table 13 indicate that more than 80% of both affected and non-affected respondents received parental care when it happened that one of the household members was sick. The remaining received care from the relatives and older child. This is not

significant at ($p>0.05$).

4.4.5 Migration

In this study respondents were requested to state if there is any person(s) living in that household who is not a family member. This question targeted to determine the relationship of migration and HIV/AIDS.

Table 14: Migration due to HIV/AIDS

Migration	Non-affected/hh (%)	Affected/hh (%)	Total (%)	N	X ²
Yes in-migrated	3.3	3.3	6.7	11	0.025*
Yes out-migrated	20.0	4.4	12.0	6	0.662ns
Total	23.3	7.7	18.7		

ns not statistically significant

* statistically significant($p\leq 0.05$)

Data in Table 14 indicate the kind and numbers of people migrated from their families and live with other families. Generally there is low rate of migration although the rate of out-migration is higher than in-migration, see Figure 7.

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Figure 7: Migration due to HIV/AIDS

Table 15: Reason for migration (%) N=17

Reason for migration	Non-affected hh	Affected hh	Total	X ²
Lack of money to care for the patient	80.0	95.6	87.8	0.025*
Fear of being affected	11.1	4.4	7.8	
Wrong perception	8.7	0.0	4.4	
By the community				
Total	100.0	100.0	100.0	

ns not statistically significant

* statistically significant($p\leq 0.05$)

Data in Table 15 indicate reasons of people to migrate from their family and live with another family. More than 70% of respondents from both affected and non-affected households revealed that their migrants 'face the problem of funds to care for ill persons, followed by nearly 12% and 5% of non affected and affected households respectively (fear of being affected) and about 8.7% only from non-affected households (wrong perception by the community). This implies that within the study area people face the problem of poor funds to care for the ill persons. Still people perceive wrong about fear of being affected by HIV/AIDS especially for non-affected households. Therefore this implies that there is a negative social and economic impact of HIV/AIDS on household livelihoods in the study area because the composition of the households increases hence high economic demand (sometimes high dependent ratio).

4.5 Economic impacts of HIV/AIDS

The study assessed the economic impacts of HIV/AIDS on household livelihoods. Both affected and non-affected households were interviewed using various questions that were used to determine livelihood status of the household. These include medical cost, school dropout, assets owned, household food security, and ability to pay rent for electricity and a house.

4.5.1 Medical cost

Households were asked to give their opinion as to whether they are able to afford medical expenses or not. The question used to determine better off and poor households respectively. This was done so as to assess the economic stability of the households. The question was asked for two durations i.e. during the study and five years before the study (assumed were not all respondents affected).

Table 16: Ability of the household to afford medical expenses (%) N=90

Afford medical expenses	Non-affected	Affected	Total	X ²
During the study				0.000 *
Better-off	73.3	31.1	52.2	
Poor	26.7	68.9	47.8	
Total	100.0	100.0	100.0	
Past				0.000 *
Better off	100.0	60.0	80.0	
Poor	0	40.0	20.0	
Total	100.0	100.0	100.0	

ns not statistically significant

** statistically significant ($p < 0.05$)*

As shown in Table 16, almost three quarters of non-affected households afforded medical expenses for this reason non-affected households one way or another have better life, during and five years before the survey. Over fifty percent of affected households afforded medical expenses in the past five years (60%) than during the survey (30%). During the survey the situation observed to be worse in the affected households i.e. nearly 30% while in non-affected over 70% afford medical expenses. This implies that the difference of about 25% for non-affected households who afforded medical expenses in the past five years and at the time of interview may be caused by increase in life expenses. While in affected households the difference of about 40% is high and this might be exaggerated by HIV/AIDS. Furthermore nearly 80% of the households were better off and approximately a quarter of the interviewed households were poor (affected households during the study).

Therefore HIV/AIDS have high cost-effective impacts on households' livelihoods.

4.5.2 HIV/AIDS and education

A key determinant of lifestyle and status of an individual is education. It affects many aspects of human life, including demographic and health aspects (TACAIDS *et al.*, 2005). In this study education factor was assessed in terms of school dropout. The dropout rates show the percentage of pupils who were in school and during the time of the interview they were no longer at school. Data in Table 17 show the percentage of children from both affected and non-affected households in relation to school drop-out. The study revealed that the percentage of children school attendance among affected household was lesser than in non affected household. More than half of children from affected households failed to attend school due to social and economic reasons. For example through probing a burden care for the sick; and financial problems on school fees and uniform was also mentioned by affected heads of the households to be the major problem.

Table 17: HIV/AIDS and school dropout (%) N=90

School drop out	Non-affected hh n=45	Affected hh n=45	Total	X ²
Yes	26.7	66.7	46.7	0.000 *
No	73.3	33.3	53.3	
Total	100.0	100.0	100.0	

ns not statistically significant

** statistically significant ($p < 0.05$)*

Table 18 presents responses on a follow-up question about school dropouts. According to the study, it was observed that nearly half of children in affected households failed to attend school because of school fees and approximately 16% failed to attend school because of uniform, more than a quarter had no reason and only 2% because of

stationeries. This implies that the impact of HIV/AIDS on education is hard. This justifies the right to education and the need for life saving information about the epidemic remains as diminished as they are unfulfilled. In non-affected households out of 27% nearly three quarters of them had no reason; the remaining quarter left school because of school fees. Therefore basing on reasons for school dropouts it can be concluded that affected households suffer more on matters that need high funds (such as school fees) than in non-affected households. Furthermore, in the study area children from affected households are more likely to face education disadvantages than children from non-affected households. Children were leaving school prematurely because of care for ill parents and for economic reasons. Hence it can be concluded that HIV/AIDS has social and economic impacts on affected households.

Table 18: Reasons for school dropout (%) N=34

Reason for School dropout	Non-affected hh	Affected hh	Total	X²
No reason	73.3	33.3	53.3	0.001*
Stationers	-	2.2	1.1	
Uniform	-	15.6	7.8	
School fees	26.7	48.9	37.8	
Total	100.0	100.0	100.0	

ns not statistically significant

** statistically significant($p < 0.05$)*

4.5.3 Quality of life during the past and to date

The well-being or quality of life of a population is an important concern in economics and political science (Wikipedia, 2007). At large it is a living standard, the amount of money and access to goods and services that a person or household has. Understanding quality of life is particularly important in health care, where monetary measures do not readily apply (Wikipedia, 2007).

According to the findings shown in Table 19, it is increasingly clear that as a result of HIV/AIDS there is significant increase in expenditure patterns.

Table 19: Quality of life during the past and to date (%) N=90

Quality of life during the Past & to date	Non-affected hh n=45		Affected hh n=45		Total		X ²	
	(past)	(now)	(past)	(now)	(past)	(now)	(past)	(now)
Pretty good	2.2	2.2	6.7	4.4	4.4	3.3	0.006 ns	0.000*
Good	31.1	40.0	40	17.8	35.6	28.9		
Moderate	60.0	46.7	24.4	2.2	42.2	24.4		
Bad	6.7	11.1	26.7	73.3	16.7	42.2		
Pretty bad	0.0	0.0	2.2	2.2	1.1	1.1		
<i>ns not statistically significant</i>				<i>* statistically significant(p<0.05)</i>				

Most of affected households showed negative impact on the quality of life when one compared their life in the past five years and during the time of the interview. Most of affected households had good and moderate quality (more than half) of life in the past while during the time of the interview the situation was pretty bad since over two third experienced bad quality of life. In non-affected households, over two third of respondents experienced good and moderate quality of life during the past five years and at the time of the interview. Through probing some of the respondents (non affected households) failed to define what is good /bad quality of life in this third world country, they said “*aah! Maisha mazuri Bongo?*” which means “do you expect to meet good life in Dar es Salaam?” Generally, it implies that HIV/AIDS worsens the quality of life of an individual, family and the community as well hence can affect (negatively) family income as well as social

and economic welfare of the households.

4.5.4 HIV/AIDS and food security

Food is a basic need for all people. Data in Table 20 presents the number of meals per day as an indicator of food security for respondents. It is also one of the indicators and measures of household welfare. In general the levels of food insecurity were higher in affected households than in non-affected households.

Table 20: Household food security

Number of meals per day	Non-affected	Affected	Total	X ²
One	4	0.0	2.2	0.000*
Two	20	60.0	37.8	
Three	76	37.5	58.9	
More than three	0	2.5	1.1	
Total	100	100.0	100.0	

ns not statistically significant

** statistically significant*

Respondents were asked to state number of meals per day they were taking during the survey. About 5% of non-affected households take one meal per day and none take more than three meals per day. None of the affected households take one meal per day but nearly 3% take more than three meals per day.

Further, it has been observed that majority of affected households take two meals per day (60%) however the minority (more than 30%) have three meals per day. Non-affected households appear to be more prosperous, since over three quarter report having three meals per day on average (see Figure 8).

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Figure 8: HIV/AIDS and food security

This may be supported by literature that the linkage between HIV/AIDS and food security is bi-directional in the fact that HIV/AIDS contributes to food insecurity; and physiological susceptibility to HIV/AIDS (FAO, 2002 in TFNC, 2005). It was further noted that HIV/AIDS affected households generally experience a decline in food security (access) compared to non-affected households. Hence it can be concluded that HIV/AIDS creates hardships in attaining food needs as well as social welfare of the household.

4.5.6 Households characteristics

To assess the socio-economic characteristics, respondents were asked a number of questions on issues related to their household environment. This included the sources of drinking water, housing condition that is roof, floor, wall materials and source of energy.

It is important to know the source of drinking water because waterborne diseases, including diarrhoea and dysentery, are prevalent in the country. Sources of water which are expected to be relatively free of these diseases are piped water into a house, public tap, protected wells, public wells and rainfall in an open space. Other sources, like unprotected wells, rivers and streams, ponds and lakes, are more likely to carry bacteria that cause these diseases. Table 20 shows that just over three fourth of respondents have safe water though few (4 %) affected respondents use unsafe water (water from open wells). It is difficult to conclude that HIV/AIDS have impact on access to safe water because sources of drinking water in Dar es Salaam differ from one place to another due to the distribution of water by Dar-es Salaam Water and Sewerages Cooperations and availability of water from the

water-table.

Table 21: Household characteristics (%) N=90

House condition	Non-affected hh	Affected hh (%)	Total	X ²
Source of drinking water				0.029*
Piped water into a house	40.0	26.7	33.3	
Public tape	20.0	46.7	33.3	
Well in residence	22.2	15.6	18.9	
Public well	17.8	6.7	12.2	
Rainfall/water from open well	0.0	4.4	2.2	
Total	100.0	100.0	100.0	
Flooring material				0.595ns
Earth, sand, dang	31.1	28.9	30.0	
Cement/ceramic tiles	68.9	68.9	68.9	
Wood planks	0.0	2.2	1.1	
Doors				0.379 ns
Wood	84.4	88.9	86.7	
Corrugated iron sheets	15.6	11.1	13.3	
Electricity				0.067ns
Have	84.4	68.9	76.7	
Have not	15.6	31.1	23.3	
Roof				0.085ns
madebe (oil cans)	13.3	20	13.3	
Asbestos tiles	5.6	2.5	5.6	
Corrugated iron sheets	81.1	77.8	81.1	
Wall				0.436ns
Sun dried bricks	11.1	15.6	11.1	
Burnt bricks	6.7	6.7	6.7	
Concrete blocks	81.1	77.8	81.1	
Iron sheets	1.1	0.0	1.1	
Total		100.0	100.0	

ns not statistically significant

* statistically significant($p < 0.05$)

It is also useful to look at some indicators of the quality of housing of the households that were contacted. Looking at the flooring materials in Table 21, almost two third of the interviewers had good floor made with cement. Nearly to a quarter had bad floor (sand floor) and about 2% had the expensive floor (wood), which is in affected households. As for doors, commonly used materials include wood nearly 90% have wood doors. Wooden doors are commonly used in urban areas. In addition, corrugated iron sheets were

commonly the roofing feature. Over three fourth of the respondents have roof made with corrugated iron sheet though about 20% of affected households have roof with ‘*makuti*’ and ‘*madebe*’ i.e. *Coconut*/palm leaves and absolute cans respectively.

4.5.7 Households durable goods

Another indication of the household’s socio-economic status is the durable assets that a household owns. Moreover, particular goods have specific benefits. For instance, having access to a radio or television exposes household members to innovative ideas, refrigerator prolongs the wholesomeness of foods and means of transport allows greater access to many services away from the local area. Households assets owned were analysed in SPSS data sheet by constructing an index of all assets owned by the household which includes radio, table, TV, refrigerator, metal bed, wood bed, utensils cupboard, clock, kerosene lamp, bicycle and cotton mattress. Household condition was also used to assess household livelihoods. These include source of drinking water which include piped water into a house, public tape, well in residence, public well, rainfall, open well; and flooring material which include earth/sand/dang floor, cement/ceramic tiles, wood planks; and doors which include wood, corrugated iron sheet; and source of energy i.e. availability and ability to pay for electricity; roof which include oil cans, asbestos tiles and corrugated iron sheets; wall which includes sun dried bricks, burnt bricks, concrete blocks and iron sheets. A total of 32 variables were used to find a mean for affected and non-affected households.

In the study area ownership of a plot was not common in Dar es Salaam. At the same time ownership of the house by renting was generally common. Followed by own house and lastly by inheriting.

Mean (16) was calculated to find the average number between the poor and the rich by considering the number of assets owned. As shown in Figure 9 households below 16 was regarded as poor and above 16 was regarded as rich while the average mean was considered to be 16.

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Figure 9: Category by household livelihoods

Table 22: Wealth category of the household livelihoods (%) N=90

Wealth status	Non-affected	Affected	Total	X ²
Poor	40.0	55.6	47.8	0.432ns
Average	6.7	8.9	7.8	
Rich	37.7	20.0	28.9	
Total	100.0	100.0	100.0	

ns not statistically significant

** statistically significant($p < 0.05$)*

Basing on survey results presented in Table 22 show that over half of affected households (56%) were poor 10% were at least better off and only 20% were better off. For non-affected households about 40% were poor, only 7% were at least better off and nearly 38% were rich. This may imply that households' assets were sold due to HIV/AIDS to cover medical costs and other expenses.

4.6: Hypothesis testing

Null hypothesis stated that livelihood of affected and non-affected by HIV/AIDS do differ significantly by $p \leq 0.05$. Since chi-square is 0.667 (is greater than 0.05) then the stated null hypothesis is not significant as depicted in Table 23.

Table 23: Hypothesis testing using Composite variable (%) N=90

	Non-affected hh n=45	Affected hh n=45	Total	X ²
Better off	42.2	37.8	40	0.667ns
Poor	57.8	62.2	60	
Total	100.0	100.0	100	

ns not statistically significant

** statistically significant(p<0.05)*

4.7 Coping strategies

Coping strategies are measures for dealing with food scarcity situation. That is the mechanism communities adopt when faced with food shortages before receiving/seeking external assistance (Ishengoma, 1998). Households indicate a preference to self –adjust as much as possible when dealing with these crises/scarcity before seeking outside help. Coping strategies most commonly used begin with eating less preferred and less costly food (Maxwell and Rutakahana, 1997). When necessary adults reduce their portions to maintain food for their children. Families always cut down on medical expenditures and others go without food one day per week. An example of households in peri-urban are more likely to seek additional sources of income or to go back to their home (Maxwell and Rutakahana, 1997).

Table 24: Coping mechanism (%) N=90

Mechanism	Non-affected	Affected	Total	X ²
No food shortage	51.1	0.0	25.6	0.000*
Reduction in number of meals/ day	40.0	80.0	60.0	
Selling of household assets	4.4	13.3	8.9	
Child labour	0.0	6.7	3.3	
Send children to live with relatives.	4.4	0.0	2.2	
Total	100.0	100.0	100.0	

ns not statistically significant

**statistically significant(p<0.05)*

Respondents were asked; when they have food shortage, which coping mechanism(s) do they use to meet household requirement. The study revealed that more than half of non

affected households have no food shortage hence no coping mechanism. About 40 percent cope by reducing the number of meals per day and only four percent cope by selling household assets. In affected households more than three quarters cope by reducing the number of meals per day, nearly 15 percent by selling of household assets and about 7 percent by child labour. The test of chi-square is significant at ($p < 0.05$). Basing on results in Table 24 most of affected households observed to have a number of coping mechanism than non-affected households. Therefore the null hypothesis that household affected by HIV/AIDS use difficult coping strategies to sustain their life was tested. This implies that reducing consumption and switching strategies are generally the households' first line of defence against food shortage in affected households. Switching strategies include consumption of food not normally consumed and low costly food such as green vegetables, meal without animal protein such as meat, which show an anomaly to the previous daily consumption, selling of household assets such as fridge, cup boards and jewellery were also mentioned as coping strategies.

Others mentioned that they coped with the situation by doing small businesses for example selling of ice cream and *ubuyu* from baobab tree, which normally was done by children. Therefore child labour was among the coping strategies used to cope with food shortage.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Overview

The main objective of this study was to determine the socio-economic impacts of HIV/AIDS on household livelihoods among affected and non-affected households. This information will assist programme and policy maker to design relevant intervention programmes and policies concerning the impact of the pandemic. In the previous chapter, the presentation and discussion of the major findings of this information have been covered. This chapter presents the summary of the study findings, conclusion, recommendations (for policy, community, and household) and finally suggestions for further research.

5.2 Summary of the major findings

The summary of the major findings is presented in five parts. Part one involves general characteristics of the respondents such as demographic and socio-economic characteristics; part two involves the impact of HIV/AIDS on household livelihoods. While part three involves socio-economic impacts of HIV/AIDS on household livelihoods, part four involves the mechanism used by the respondents when there is food shortage. Part five involves the comparison of affected and non-affected households by HIV/AIDS on household livelihoods.

5.2.1 General characteristics

This study has shown that majority of respondents were married. Most of the interviewed affected households are in the age group of 21 and 42 years. This belongs to the group of

economically productive and sexually active people. Number of females interviewed was high in affected households while in non-affected households number of males was higher than that of females. Family size was found to be moderate (5-10members) for both affected and non-affected households therefore most of households had no large family families. On the other hand, the results of chi-square test showed that there is significant relationship between occupation status and livelihoods of affected and non-affected households. Education wise, the results of chi-square show that there is no significant link between knowledge gained and household livelihoods among affected and non-affected households in the study area.

5.2.2 Social impacts of HIV/AIDS on household livelihoods

The research results show that, majority of affected households face the negative social impacts on household livelihoods. These include less integration of people within the society particularly for friends and neighbours; inheritance practice of the widow; education and migration. Test for chi-square of these variables are significant at ($p < 0.05$). Increasingly, people living with HIV/AIDS have been discriminated in the community, work place and fairly at the household level. Therefore the pandemic was found to have direct impact on social relations of the people living with HIV/AIDS within family members, neighbours, close friends, relatives and co-workers. Element of discrimination, neglect and problems in marital relations in affected households were also observed. This implies that HIV/AIDS affects social relationship of household livelihoods. Therefore it further causes affected households to become socially excluded, thus diminishing their ability to cope with more crises including household livelihood.

5.2.3 Economic impact of HIV/AIDS on household livelihoods

From the economic point of view, economic impacts have been observed on matters that require cash. These include medical cost, food security and education. The obvious impacts of HIV/AIDS are the increased expenditure that arises from medical treatment of infections affecting people living with HIV/AIDS. The education system is also experiencing the problem of increased student absenteeism and school dropout due to financial constraints. Furthermore, HIV/AIDS is both a cause and a consequence of food insecurity at the household level. Almost all affected respondents face the shortage of food within the households. Most of affected household are likely to miss their target of number of meals per day. More than three-quarter take less than three meals per day as a means of coping with food insecurity. Test for chi-square is significant at ($p < 0.05$). This implies that HIV/AIDS might increase the risk of depletion of household livelihood, food security inclusively hence poverty.

5.2.4 Coping mechanism

Another notable observation in this study is that, the most popular coping strategies used by the affected households when there is food shortage include reduction in number of meals per day, selling of household assets such as fridge, radio and jewellers. The least popular coping strategies were selling of ice creams, *ubuyu* (wild fruit), roasted groundnuts mostly done by children (labour) and selling of doughnuts, pan cakes (chapati) and sweeping mostly done by women. Nearly all employed coping strategies at household level are observed to be effective but some were found to be erosive, that is, weakening household's ability to cope with future shocks. This is clearly observed in the discussed coping strategies, that is, selling of household assets. The implication of increased selling of household assets in the long run is the increased poverty since the available assets are

eroded and more resources are crowded out favouring debt repayment in case the household income does not improve. In addition, taking children out of school disrupts the process of human capital investment and this will result to a mass of illiterate future labour force.

5.2.5 Comparison of affected and non-affected by HIV/AIDS on household livelihood

It is evident that the food and livelihood security of the households are seriously threatened and undermined by the HIV/AIDS pandemic. More than half of the negative social and economic impacts of HIV/AIDS were found on households affected by HIV/AIDS than in non-affected households. This phenomenon was found in poorer households by food and livelihood security because payment for work and business, in food and cash, goes to cover essential basic needs. Therefore affected household are more likely to face food and non-food deficits than non-affected households.

5.3 Conclusion

- a) The study revealed that medical and health expenditures are increasing in HIV/AIDS-affected households. To name a few, the study showed that HIV/AIDS is putting a heavy financial burden on households affected by the epidemic.
- b) Many changes occurred in affected respondents, including loss of paid employment, increasing borrowing and the sale of possessions. The decrease of revenue from loss of labour is an important impact of HIV/AIDS observed hence households move to relative affluence poverty.

- c) Food consumption decreases in many HIV/AIDS affected households. The change in food intake leads to malnutrition, especially among children. Households affected by HIV/AIDS tend to decrease their consumption and switch to cheaper foods.
- d) HIV/AIDS adds stress to the lives of family members. It robs the lives of the caregiver and care taker of the family. It robs the lives of adult children of the family, who would have been responsible for care in old age, and it pushes others left behind into the role of caregivers for the family.
- e) The average income earner in Dar es Salaam is responsible for supporting few people. A significant burden given a low level of earning. Less than one quarter of household heads affected by HIV/AIDS are able to take on an additional job to supplement income. Despite receiving low pay, the affected households typically see them as having a particular occupation and their jobs are generally informal or temporary. The majority of affected household heads workers are self employed, rather than wage earners.

5.4 Recommendations

5.4.1 Programmes/policy

- a) Impact of HIV/AIDS is felt in every field of human endeavour; an effective response to HIV/AIDS has to be equally broad. It requires the government to find new ways of working together by:
 - Harnessing its leadership to the energy and creativity of community

organization,

- Bringing together the weight of all institutions, religious, social, political and economic so that they generate shared momentum, and
- Finding new and better ways to bring public and private interests together on everything from access to life-saving drugs, to protecting and supporting the workforce from the impact of the epidemic.

- b) Poverty reduction strategy should address the issue of poverty income particularly for people affected by HIV/AIDS.
- c) To provide the necessary resources and technical support to country teams including NGO's dealing with HIV/AIDS to mainstream HIV/AIDS activities and impacts in all sectors.

5.4 2 At the community level

- a) The community should establish some form of social insurance mechanism for example providing (bi-annually) basic needs such as food and clothes to the centre supporting orphans and other groups that are victims of the pandemic. This does not only aim to uplift people out of poverty but also to maintain the status of standard living.
- b) Financial grants should be established by the community to promote alternative livelihood.

- c) The community should fully recognize the nature of the impact and make some efforts to prevent loss of social capital and socially reproductive labour, which normally affect the economy of the society. Reducing impacts of HIV/AIDS will require not only greatly increased investments in effective HIV prevention and care, but also more effective measures to combat poverty. Sensitization the community on how HIV is transmitted; and that HIV is not transmitted by sharing food or utensils will minimize stigma and discrimination to PLWHA.
- d) There is a need to increase the scale of prevention efforts to reach all people who are vulnerable and to rapidly build capabilities to provide care and treatment. For example expand interventions with science based effectiveness to reduction of based risk behaviours among middle ages and older people and for improvement in the diagnosis and treatment of older adults with HIV/AIDS.
- e) Specific programmes and policies should be designed to help prevent and respond to the various economic and settings of food and non-food effects of HIV/AIDS.

5.4.3 At family level

- a) The efforts to stop HIV/AIDS should be anchored at family level. Each parent and guardian should insist his or her family members on behavioural changes. For instance practice self sex, establishing healthy behavioural patterns during adolescence is much easier than changing risky behavioural later on.
- b) Cultural norms or religious beliefs such as inheritance, commercial sex work and intravenous drug use should be stopped (not be address) to reduce the spread of

HIV/AIDS.

- c) All individuals should be conducted into a holistic response to combat the devastating effects of HIV/AIDS

5.4.4 Other stakeholders

- a) Every effort should be made to mobilize people at the grassroots so that they participate in AIDS activities, in particular and the development process in general. AIDS.
- b) AIDS sensitization campaigns should be conducted in participatory manner for example conducting Participatory Rural Appraisal (PRAs).

5.5 Areas for future research

The study recommends the following for future research;

- a) The available findings in this case study were a result of micro-survey done in three districts in Dar es Salaam city. Due to limited funds less number of respondent were interviewed and these can not represent the whole population of Dar es Salaam city as well as population of Tanzania. Therefore there is a need for further research on socio-economic impacts of HIV/AIDS on household livelihoods in other part of the country.
- b) The study bases on two variables of livelihood framework (social and financial capital) to study the impacts of HIV/AIDS in a Dar es Salaam city. There is a need to study the impacts of HIV/AIDS on other variables of livelihood framework including natural, human and physical capital.
- c) Further research should be done on how the local government and institutions

(dealing with HIV/AIDS) handle the problem of impacts of HIV/AIDS on household livelihoods (micro level) to the governmental level (macro).

REFERENCES

- Arif and Westely (2003). CARE/DFID Livelihood Monitoring Project Bangladesh. [<http://www.oxfam.org.uk/whatwedo/issues/livelihoods/landrights/downloads/aidsland.rtf>] site visited on 16th February, 2005.p42
- Bailey, K.D. (Eds.) (1995). *Methods of Social Research*. The Free Press, New York, 587pp.
- Barnett T. and Blaikie P. (1992). *AIDS in Africa: Its recent and future Impact*. Belhaven Press, London. [www.fao.org/SD/EXdirect/EXre0026.htm] site visited on 25th July, 2005.p60
- Blaikie, Soussan, Oliver, Mathew (2006). *Improving Policy-Livelihood Relationship in South Asia. A model of Sustainable Livelihood*. [www.york.ac.uk/inst/sei/prp/pdfocs/3%livelihoods20%factsheets.pdf].site visited on 20th January, 2006.p56
- Boer, (2005). *The origins of HIV and the First Cases of AIDS*. [[http://www.who.int/mip/2003/other-documents/en/causes of death](http://www.who.int/mip/2003/other-documents/en/causes%20of%20death)] site visited on 2nd August, 2005.p47
- Casley, D.J. and Kumar, K. (1988). *The collection Analysis and Use of Monitoring and*

Evaluation Data. The International Bank for Reconstruction and Development. Washington, D.C.p.9

DFID/FAO (2000). Inter-Agency Experience and Lessons: from the Forum on Operationalizing Sustainable Livelihood Approaches. Rome, Food and Agriculture Organization of the United Nations and Department for International Development site [www.fao.org/docrep/x7749e/x7749e00.htm] site visited on 28th August, 2006. pp52-54

Donnell. M, (2004). *Food Security, Livelihoods and HIV/AIDS*. A guide to the Linkages, Measurement and Programming Implications, London. pp54-61.

Erickson (1990). Effective Detection of HIV. An overview of AIDS: [www.ph.ucla.edu/epi/faculty/detels/detectHIV.htm] as retrieved on 28th May, 2007.p23

FAO (1996). *The special Program for Food Security*, Food and Agriculture Organization of the United Nations, Rome.p14.

FAO (2003). The Impact of HIV/AIDS on Household Food Security. [<http://www.fao.org/docrep/meeting/003/Y03/OE.htm>] site visited on 19th May 2005.pp 21-24.

Haddad and Stuart (2001). Effective Food and Nutrition Policy Response to HIV/AIDS: What we know and what we need to know. International Food Policy Research Institute Washington, D.C. USA. [<http://www.ifpri.Org/divs/fcnd/dp/papers/>]

fcndp112.pdf] site visited on 16th September, 2005.p88

Help Age International (2004). *The cost of Love*. Older people in the fight against AIDS in Tanzania, Dar-es Salaam Tanzania. pp. 31-33.

Ishengoma, C.G (1998). The role of women in household food security in Morogoro rural and Kilosa districts. Phd Thesis. Faculty of Agriculture, Sokoine University of Agriculture. Morogoro Tanzania p239

Kaganda (2004). Nutritional Approach on HIV/AIDS: in *Social Security Perspective*. (Parastatal Pension Fund); A Paper presented at the 14th – 30th October, 2004 AICC Arusha, Tanzania. pp. 20-23.

Kagosi, M.A., (2001). *The potential indigenous farming practices (Mikoka and Majaruba) in enhancing household food security*. A case of Musoma District. Msc. A Thesis of Sokoine University of Agriculture Morogoro, Tanzania.pp40.

Kapinga, D., Kisawike, K., Ngasong'wa J. and Ndelike M. (1993). *Report on the Study of HIV/AIDS on Agricultural Production System in Tanzania. Effects of HIV/AIDS on Agricultural Systems*, Morogoro, Tanzania. Food and Agriculture Organization, Rome. 9 pp.

Kessy, F., Mashindano, O., Kida, T., and Macha, D. (2002). The Economic and Social Impact of HIV/AIDS in Tanzania. Tanzania. [<http://www.ifpri.Org/divs/fcnd/dp/papers/fcndp112.pdf>] site visited on 20th December 2005. pp52-

54.

Kessy F., Mashindano O., Kida T., and Macha D. (2004). The Economic and Social Impacts of HIV/AIDS in Tanzania. The Economic and Social Research Foundation in [<http://www.tzonline.org/dbtw-wpd/exec/dbtwpub.d11>] cited on 9th June, 2006. pp66-67.

Lovelife, (2004). Treatment, care and support for people living with HIV.[www.unaids.org/bangkok2004/GAR2004] as retrieved on 29th May, 2007. p18.

Maxwell, D. and Rutakahana, R. (1997). *Urban Livelihood Security Assessment*. Design, Background, Strategy, Data collection and Analysis Methodology. CARE Tanzania. pp53-57pp.

Over, M., Ainsworth, M., Mujinja, P., Koda, G., Lwihula, G., Semali, I., (1989). *The Economic Impact of Fatal Adult Illness in sub-Saharan Africa: A Research Proposal*, World Bank and University of Dar es Salaam, Tanzania. 71-77pp.

Mbwambo, J.S. (2000). The Role of Local Knowledge and Organization in Sustainable Conservation of Biodiversity. A case study of Udzungwa Mountain. Dissertation submitted in partial fulfillment for the degree of masters of science in management of natural resources for sustainable agriculture of Sokoine University of Agriculture, Morogoro Tanzania p124.

Ministry of Health, (1999). *Epidemiological reports* No 14: New-year message to the Nation by President Mkapa in Dar-es Salaam. pp33.

Ministry of Health, (2002). *STIs: A newsletter on Sexually Transmitted Infections*. Issues No. 1, Dar es Salaam. 6pp.

Muhondwa (1997). *Global Situation of HIV/AIDS*. Chapter II Strategies for Male Participation in Sexual and Reproductive Healthy Program. [www.joicp.or.jp.eng/public] as retrieved on 28th May, 2007.

Mwakalobo, A. (2004). *Implications of HIV/AIDS on Rural Livelihoods in Tanzania*. The case of Rungwe District: Paper Presented at the University of Massachusetts: USA. p 25.

NACP (1998). *Strategic framework for Third Medium Term plan (MTP-III) for prevention and control of HIV/AIDS/STDS*. Ministry of Health, Dar es Salaam. pp48.

NACP (2001). *HIV/AIDS/STI Surveillance report*. Ministry of Health, Tanzania Report No. 16. Dar es Salaam, Tanzania. pp15.

NACP (2005). *HIV/AIDS/STI Surveillance Report Number 19 (Jan-Dec, 2004)*. [www.nacptz.org/publications/AIDSImpactHuman%ResourceReport.pdf] site visited on June 26th, 2005.

NSGRP (2004). United Republic of Tanzania, Vice President's Office. Second draft

2005/06-2009/10.

NBS (2005). National Bureau of Statistics (NBS) [Tanzania] and ORC Macro.2005.
Tanzania Demographic and Health Survey 2004-2005: Key Findings.
 Calverton, Mary land, USA: NBS and ORC Macro. pp20-22.

Nguya (2005). The household food security coping strategies among the poorest of the poor in Mvomero District, Tanzania. A dissertation submitted in partial fulfillment for the degree of masters of Arts in Rural Development of Sokoine University of Agriculture, Morogoro Tanzania. p42.

Ole-losai C., (2004). The Impact of HIV/AIDS on Household Food Security in Arumeru District Tanzania. Dissertation submitted in partial fulfillment for the degree of masters of Arts in Rural Development of Sokoine University of Agriculture, Morogoro Tanzania p106

Par Paso Group (1994). *Participatory Management in Coping with AIDS*. Dar es Salaam, Tanzania. p4-15.

PMO (2004). *HIV/AIDS Strategic plan and MTEF Cost of activities for the year 2003/2004 to 2005/2006*. Dar es Salaam, Tanzania. p23-24.

Policy country, (2003). HIV/AIDS in Tanzania. [<http://hivinsite.ucsf.edu/global?page=cro9-tz-00>] site visited on 2nd August, 2005. p 25.

Rowe (2006). The Measurement of Composite Variables from Multiple Indicators: Applications in Quality Assurance and Accreditation Systems-Childcare. [www.york.ac.uk/inst/sei/prpdocs/3%livelhood%20factsheet.pdf] site visited on 25th July, 2005. p22-26.

Rugalema, G. H. R., (2000). *Coping or struggling? A journey into the impact of HIV/AIDS on rural livelihood in Southern Africa*. Paper prepared for the expert meeting on Mitigating the Impact of HIV/AIDS on Food Security and Rural Poverty: A Framework for the Agricultural Sector. Rome, Food and Agriculture Organization of the United Nations. p43.

Sahn, E. and Alderman, (1997). *On the Determinants Nutrition in Zimbabwe*. The importance of Age-specific of effect. World Development 25 (4): pp577-588.

TACAIDS (2003). *Tanzania Commission for AIDS, National Multi-sectoral Strategic Framework on HIV/AIDS 2003-2007*. National HIV/AIDS Policy, pp20.

TDHS (1996). *Demographic and Socio-economic Characteristics of Households*. (Edited by Mohamed A., Barrere B., and Otto J.) Macro International Inc. Calverton, 16-20 December 2002. pp.54.

Temba J., (2003). *Athari za Ukimwi kwa Ulinzi wa Jamii*. Tanzania Commission for AIDS. Mkutano Mkuu wa Wanachama. AICC ARUSHA tarehe 27-29 Octoba, 2004.

Tanzania. p45.

Nutrition Planning Policy Department (2005). *Assessment Report on the Effects of HIV/AIDS on Household Food Security and Nutrition in Kibaha, Makete, Kilosa and Hai Districts*, Tanzania. TFNC Report No 2022. pp40-48.

UNAIDS (1999). A Review of Household and Community Responses to the HIV/AIDS epidemic in the rural areas of Sub Saharan Africa. [www.ifad.org/operations/regional/pf/aids-bib.htm] site visited on 16th April, 2002. p112.

UNAIDS (2000). *Guidelines for Studies of the Social and Economic Impacts of HIV/AIDS*. Geneva, Switzerland. pp 55-60.

UNAIDS and World Bank Report, (2000). *Intensifying Action against HIV/AIDS in Africa: Responding to a Development Crisis*, Africa. pp 42-43.

UNAIDS/WHO (2000). *AIDS in Africa*. Spotlight on the International AIDS Conference. Geneva, Switzerland. p76.

UNAIDS (2002). *AIDS epidemic update*. World Health Organization. Joint United Nation's Programmes on HIV/AIDS, Geneva, Switzerland. pp 20-21.

UNAIDS/WHO (2004). *Report on the Global AIDS epidemic at the end of 2004*.

UNAIDS/WHO, Geneva, Switzerland. p87.

UNAIDS (2005). The global impact of HIV/ AIDS. [<http://eebweb.arizona.edu/courses/eco/409/509/readings/piot01.pdf>] site visited on 8th August 2005. p10.

UNAIDS, (2006) *Report on the Global AIDS epidemic*. A UNAIDS 10th anniversary special edition. Geneva, Switzerland. pp12-15.

URT (1992), The Food and Nutrition Policy for Tanzania. Tanzania Food and Nutrition Centre. Ministry of Health Dar es Salaam. P15-16, 56.

URT (1995). National Policy on HIV/AIDS/STDS. National AIDS Control Program. Tanzania. p 55.

URT (2000). Poverty Reduction Strategic Paper (PRSP). Tanzania Government. Dar es Salaam, Tanzania.

URT (2001). National Policy on HIV/AIDS. Prime Minister's Office Dodoma Tanzania. p34-39.

URT (2001). National Policy on HIV/AIDS, Tanzania Assessment. [www.esrftz.org/ppa/documents/Mwaru.pdf+issues%2BLIVELIHOODS%2BHIV/AIDS%2BOXFARM&hl=en&start=8] site visited on 25th January, 2006.

URT, (2002). Population and Housing Census Region Profile. National Bureau of

Statistics. Dar es Salaam, Tanzania. p40.

URT, (2003). *2002 Population and Housing Census General Report: Central Census Office National Bureau of Statistics President's Office Planning and Privatisation* Dar es Salaam, Tanzania. pp203.

URT, (2004), *Dar es Salaam City Profile*. Document Prepared by Dar es Salaam City Council with Advice from Cities and Health Programme, WHO Centre for Development, Kobe Japan. (2005). *National Strategy for Growth and Reduction of Poverty*, Tanzania.

URT (2005). *HIV prevalence rates by residence and poverty/wealth status*. Dar es Salaam, Tanzania. [[www.policyproject.com/country reports](http://www.policyproject.com/country/reports)] site visited on 14th Feb 2005. p 56.

Wagao, J.H, (1991). *Household Food Security and Nutrition in Tanzania*. A consultancy Report Submitted to UNICEF Regional Office, Nairobi Kenya.p87.

WB, (2002). *The Environment and the Millennium Development Goals*: Washington D.C. pp21.

WFP, (2001) *Food Security, Food Aid and HIV/AIDS: WFP Guidance Note in Africa*. [www.avert.org/origins.html+hiv/aids] site visited on 19th May, 2005.

Wikipedia, (2007). [www.wikipedia.org/wiki/qualityof-life]. site visited on 24th May, 2007.

.

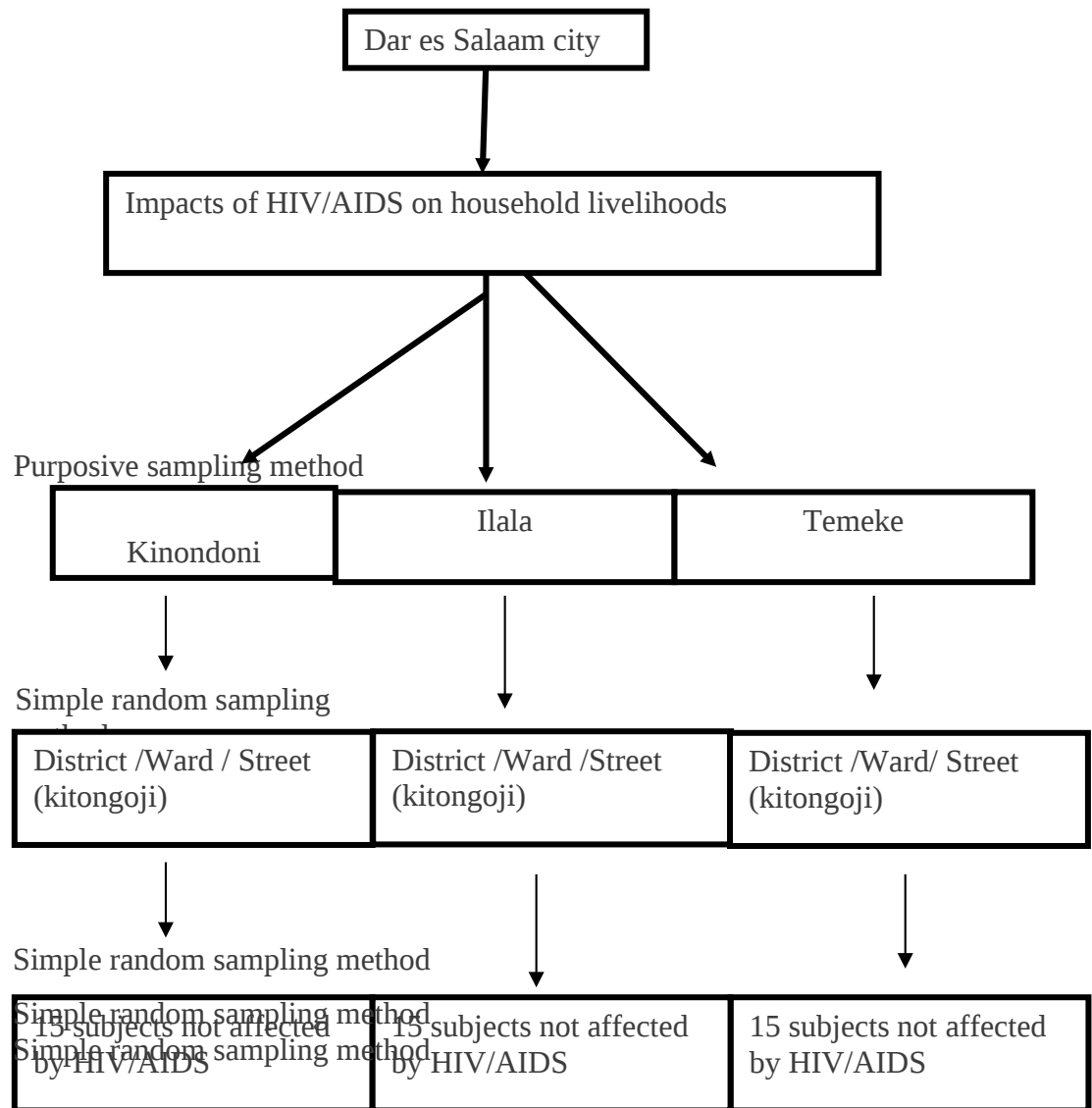
APPENDICES

Appendix 1: Operational definition of key variables used in the study

No.	Variable	Operational definitions	Level of measurement	Units of measurement
Demographic variables				
1.	Age of head of household	Absolute years since one was born	ratio	numbers
2.	Sex of household head	Being male or female biologically	Nominal dichotomous	1 =male 2 = female
3.	Occupation	Source of income of a person	nominal	1 =salary 2 =business 3= cultivation 4= none
4.	Education	Years of schooling	Nominal	1=>sec school 2=>primary school 3=<primary school 4= none
Social impacts				
6.	Inheritance	Having a wife/ husband whose former husband/wife died of HIV/AIDS or otherwise	dummy	0=didn't inherit 1 =inherit
7.	People integration	Come into equal membership in society	dummy	0=no integration 1=integrate
8.	Parent care	Serious attention from father and or mother	dummy	0=haven't parent care 1=have parent care
9.	Dependency	Availability of other members within the households apart from the blood relatives	dummy	0= have extended family 1=have not extended family
10	remittance	Seeking monetary and material remittance from relatives living away	-dummy -ratio	0=didn't get remittances 1=got remittance Tshs
11	Migration	In and out movement of family members to stay with relatives.	dummy	0=migration is not there 1=migration is there -members who migrate
Economic impacts				

11.	Medical cost	Payment for healing	dummy	0=not able to afford 1= able to afford
12.	Income	Monetary value of earning of the household per week	ratio	Tshs
13.	School dropout	Unable to finish primary/secondary school	dummy	0= No 1= Yes
Livelihood status				
14.	Access to own/pay rent a house/electricity/water services	Ability to own/pay rent a house/electricity/water services	Dummy	0= unable to pay 1= able to pay
15.	Assets owned	Valuable materials for wealth and wealth creation	-Nominal -Ratio	Lists of items Numbers &value
16.	Household food security	Dietary diversity per week	ratio	Numbers Names of foods eaten/week
Strategies for coping strategies with livelihoods				
17	Sale of household asset	Appearance in market of unusual household asset e.g. bicycles fridge, livestock, plot etc.	dummy	0=hh/assets not sold 1= hh/assets sold -names of household assets
18	seeking of aid	Seeking aid from relative, friends, neighbours etc.	dummy	0=didn't seek 1= sought
19	Change in consumption	Reduction or increase in -number of meals -expenditure on inferior or superior goods	Dummy Ratio nominal	0= not changed 1= changed -numbers -1=superior goods 2=inferior goods
20	migration	In and out movement of family members to stay with relatives	dummy	0=didn't migrate 1=migrate
21	Substitute cheaper commodities	Exchange cheaper goods	Dummy	0=not exchange 1=exchange

Appendix 2: Sampling Framework for unaffected households



Appendix 3: Questionnaire for respondents

SOKOINE UNIVERSITY OF AGRICULTURE

QUESTIONNAIRE FOR RESPONDENTS

INTRODUCTION

I am coming from Sokoine University of Agriculture, Morogoro. I am carrying a study on the Impact of HIV/AIDS on households' livelihoods in Dar es Salaam City. Basing on your experience you are requested to provide information basing on this questionnaire. All information will be treated confidentially and will be used for the purpose of this study only.

IMPACTS OF HIV/AIDS ON HOUSEHOLDS LIVELIHOODS IN DAR ES SALAAM

Introduction:

1. Date of interview.....
2. Name of district.....
3. Name of ward.....
4. Name of Interview.....

Background information:

5. Sex.....a) male b) female
6. What is your age?.....years
7. What is your marital status now? (tick where appropriate)
 - a) single
 - b) married
 - c) separated
 - d) widow
 - e) other (specify).....
8. What is your highest education level?
 - a) No formal schooling
 - b) Primary schooling

- c) Secondary school
- d) College/University
- e) Adult education

9. (i) What is your family size?

10. What is your main occupation? *Now* in the *past five* years (tick where appropriate)

- | | | |
|---------------------------|-------|-------|
| a) Wage/salary employment | | |
| b) Business | | |
| c) Cultivation | | |
| d) Others (specify) | | |

Social impacts

11. Within the household, who cares most the family especially when one is sick/died?

- a) Parents
- b) Relatives
- c) Older child
- d) Friends and neighbours
- e) Other (s) specify).....

12. When it happens that, one of your family members have/had lost his or her partner
where does the widow go?

- a) inherited
- b) remain in his/her usual place
- c) vacate the place
- d) Others (specify).....

13. Sorry, to whom of the following have you now disclosed your HIV status?

(You may tick more than one answer)

- a) household members
- b) relatives living away
- c) community organizations
- d) religious members

f) others (specify)

14. Reasons for disclose if you tick question no. 15 above.....

15. Currently, are you able to give/support material and or monetary remittance to relatives living away? (Tick as appropriate)

a) Yes=1 (b) No=0

- If question no. 17 above is YES mention how much or what is such a material.....

16. Currently, are you able to receive material and or monetary remittance to relatives living away? (Tick as appropriate)

a) Yes=1 (b) No=0

- If question no. 18. Above is YES mention how much or what is such a material.....

17. (i) Is there any person living in this household who is not a family member but is from the HIV/AIDS affected household?

a) Yes=1

b) No=0

- (ii) If Yes why?.....

a) Some migrate from home because of fear of being affected

b) Lack of money to care the patient

c) Wrong perception by the community

d) Others..... (Specify)

18. (i) Is there any person who emigrated from this household to live with another family?

a) Yes=1

(b) No=0

- (ii) If Yes Why?.....

(e) Some migrate from home because of fear of being affected

(f) Lack of money to care the patient

(g) Wrong perception by the community

(h) Others(specify)

Economic impacts

19. Currently, is the family able to afford medical expenses?

(a) No, is not able=0

(b) Yes, is able=1

(c) Others (specify)

20. And how was it in the past?

(a) No, =0

(b) Yes, =1

(c) Others (specify).....

21. Do you have child/children who do not attend school?

(a) Yes=1 (b) No=0

22. Reasons which make your children/child fail to attend school (Tick where appropriate)

1) Stationers

4) school fees

5) others (specify)

2) Uniform

3) Pocket money for meals and transport

23. How has the quality of your life been during the past 5-10 years?

(a) Pretty good

(d) bad

(b) Good

(e) pretty bad

(c) Moderate

24. Now, how have things been going for you?

(a) Pretty good

(d) bad

(b) Good

(e) pretty bad

(c) Moderate

25. How many times per day do you take food?

(a) 3 times a day

ITEMS	Frequency	Weight	ITEMS	Frequency	Weight
	3times/day	15		3times/day	15
	2times/day	10		2times/day	10
	1time/day	5		1time/day	5
	0time/day	0		0time/day	0
Cereals			Fruits		
Maize			Bananas		
Sorghum			Mangoes		
Rice			Pawpaw		
Wheat			Oranges/tangerine		
Other cereals			Other fruits		
Tubers			Meat & M/prods		
Sweet potatoes			Beef		
Taro			Chicken		
Cassava			Sheep/goat		
Round potato			Milk&m/prods		
Vegetables			Cow milk		
Tomatoes/onions			Goat		
Leaf & Pulses			Bottle milk		
Beans & Pulses			Other items		
Carrots			Tea		
Cabbage			Salt		
Okra			Butter		
Other vegetables			Juice		
Fish &					
F/products					
Dried					
Smoked					

(b) 2 times a day

(c) 1 time a day

(d) Others (specify).....

26. Indicate all the different foods that you have eaten yesterday (not festival/ fasting day).

Economic status and household assets owned

27. How adequate is your income to meet daily living expenses?

(a) Enough

(b) Barely enough

(c) Totally inadequate

28. (i) Do you own a house by.....

(a) Renting

(b) Purchasing

(c) Inherited

29. Ability to pay rent for the house

(i) yes

(ii) no

30. (ii) Do you own a plot/land by.....

(e) Purchased

(f) Rented

(g) Inherited

31. Write 1(=yes) or 0 (=no) in the blank space against each item in the table below

Item	1=Yes 0=No	Item	1=Yes 0=No	Item	1=Yes 0=No
Radio		Metal		Kerosene	
Table		TV/Video		Cotton	
Wooden bed		Watch/clock		mattress	
Clothes		Refrigerator		Pressure	
cupboard		Bicycle		lantern	
Utensils				Motorcar	
cupboard					

32. Do you have and able to pay rent for electricity in your house? (Tick)

(a) Yes=1 (b) No=0

33. What are the sources of drinking water for household use?

Piped water -piped into house/plot.....1

public tap.....2

Well -well in residence/pl.....3

Public well.....4

Surface water -spring.....5

Pond.....6

Rainwater..... 7

Other.....8

34. What are the materials used to build your house? (Fill the table below). Interviewer:
Write 1(=yes) or 2(=No) in the blank spaces against each item in the table below

WALLS	1= Yes 2=no	ROOF	1=yes 2=no	FLOOR	1=yes 2=no	DOORS	1=yes 2=no
Sun-dried bricks		Grass thatched		Natural (earth/sand)		Wood	
Burnt bricks		Asbestos tiles		Rudimentary wood planks		Corrugated iron sheet	
Concrete blocks		Corrugated iron		Finished floor: cement Ceramic tiles Published wood		Grass	
Thatched wall		<i>Madebe</i> /grass		Others (specify)		Others	
Others							

Strategies for coping with household livelihood

35. Do you receive any kind of an aid from your relatives?

a) Yes=1 (b) No=0

36. (a) What kind of aid do you receive?

a) food and clothes (b) medical care

c) finance (d) others (specify)

37 (b). Give reason (s) for receiving the aid.....

38. When you have food shortage, which coping mechanism(s) do you use to meet household requirement?

a) reduction in number of meals per day (d) child labour

b) selling of household assets (e) selling of livestock

(c) send children to live with relative (f) others (specify).....

39. Have you ever sold any household assets because of the sick/dead person with HIV/AIDS?

a) Yes=1 (b) No=0

40. What was it?

41. Are you exchanging cheaper commodities with your fellows/neighbours?

a) Yes=1 (b) No=0

42. If yes, explain what are they.....

Thank you

Appendix 4: Questionnaire on determining impacts of HIV/AIDS on household livelihoods in Dar es Salaam city

Questionnaire for the institutions aids coordinators

INTRODUCTION

I'm coming from Sokoine University of Agriculture, Morogoro. I'm carrying a study on the Impacts of HIV/AIDS on households' livelihoods in Dar es salaam City. Basing on your experience of working in this institution/s, you are requested to provide information to supplement that which will be obtained from the households affected by HI|V/AIDS. All information will be treated confidentially and will be used for the purpose of this study only.

SECTION A

Background information

1. Name of the Organization.....
2. Sex of the respondent
 - 1=male
 - 2=female
3. Highest education level
 - 1=certificate
 - 2=diploma
 - 3=advanced diploma
 - 4=degree
 - 5=others (specify)
4. What is your field of qualification.....
5. For how many years have you worked in this institution.....

SECTION B

1. What program of HIV/AIDS prevention and or the one supporting people are implemented in your institution.....
2. Are there people coming in your institution seeking for help?
 - 1=yes
 - 2= No

3. What organization sponsors your HIV services activities?
4. Do you receive any assistance from the government?
5. What do you think are the impacts of HIV/AIDS on household livelihoods.....

6. Give suggestion on what should be done to solve the negative impacts of HIV/AIDS.....

Thank you

Appendix 5: Household livelihood - cut off points for quartiles

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	36	40.0	40.0	40.0
	1.33	21	23.3	23.3	63.3
	1.67	31	34.4	34.4	97.8
	2.00	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Appendix 6: Definition of indicators for household livelihood quintiles

Valid-group	Indicator for wealth of household
≤ 1.33	Better off household
> 1.33	Poor household

Appendix 7: Component Score (distribution)

Variable	Mean	Standard deviation
Items that require cash		
Medical expenses/now	1.48	0.502
Medical/expense/past	1.2	0.402
Meals/day	1.6	0.493
Owning the house	1.36	0.481
Have Electricity	1.23	0.425
Meet living expenses	1.61	0.49
Owning the plot	1.16	0.364
Household assets		
Radio	1.02	0.148
table	1	0.0
Metal bed	1.92	0.269
Wood bed	1.08	0.269
Clothes Cupboard	1.37	0.485
Utensils cupboard	1.38	0.488
Tv	1.57	0.498
Watch	1.33	0.474
Fridge	1.56	0.5
Bicycle	1.56	0.5
Kerosene lamp	1	0.0
Mattress	1.08	0.269
Pay electricity	1.23	0.425
Source of drinking water		
Public tape	1.68	0.425
Public well	1.71	0.47
Well residence	1.8	0.456
Tape in residence	1.87	0.402
Household condition		
Wall -Sun bricks	1.93	0.342
Burnt bricks	1.88	0.251
Concrete blocks	1.19	0.329
Roof - thatched	1.94	0.23
Asbestos tile	1.93	0.251
Corrugated iron sheets	1.12	0.329
Floor -sand	1.86	0.354
Wood plank	2	0.0
Cement	1.12	0.329
Doors - wood	1.13	0.342
Iron	1.86	0.354
Grass	2	0.0
Motorcar	1.97	0.181
Pressure lantern	1.86	0.354

Appendix 8: Mean and standard deviation of livelihood variables for affected non – affected households

Variable	Affected		Non-affected		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
is the family able to afford medical expenses?	1.27	0.45	1.69	0.47	1.48	0.50
and how was it in the past?	1.00	0.00	1.40	0.50	1.20	0.40
how many times per day do you take meals	1.18	0.39	1.62	0.49	1.40	0.49
mode of owning the house	1.24	0.43	1.47	0.50	1.36	0.48
do you have electricity in your house?	1.16	0.37	1.31	0.47	1.23	0.43
ability to meet living expenses	1.47	0.55	1.87	0.55	1.67	0.58
mode of owning the plot	1.31	0.73	1.82	0.86	1.57	0.84
items owning	3.47	0.99	2.67	1.17	2.10	1.22
what are the sources of drinking water for household use	2.18	1.15	2.20	1.18	2.19	1.16
Wall condition	2.82	0.58	2.62	0.75	2.72	0.67
Roof condition	2.78	0.56	2.58	0.81	2.68	0.70
Floor condition	2.38	0.94	2.40	0.91	2.39	0.92
Doors condition	1.16	0.37	1.11	0.32	1.13	0.34