

**EXPANDING THE APPLICABILITY OF ENVIRONMENTAL ASSESSMENT IN THE  
DEVELOPING WORLD CONTEXT: A FRAMEWORK FOR INTEGRATING  
HIV/AIDS INTO ENVIRONMENTAL IMPACT ASSESSMENT**

by

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Submitted in fulfillment of the academic requirements for the degree of Master of Science in the School of Life & Environmental Sciences, University of KwaZulu-Natal, Durban

December 2005

## ABSTRACT

Since the 1970's, the increasing scale and complexity of development schemes has led to mounting public concerns about their environmental impacts. Environmental assessment and management developed out of a recognised need to protect the biophysical environment from overuse and degradation. Evidence suggests that the issues continue to become more complex and we need to equip ourselves to deal with them. The complexity of issues we face today demands a holistic and integrated management approach.

This thesis highlights the weakness in the application of environmental impact assessment (EIA) to deal with current issues. The conceptualization of EIA within the ecological modernisation discourse has limited the use of the tool to adequately consider issues outside the biophysical environment. On the African continent, social issues such as HIV/AIDS are becoming more dominant than biophysical impacts. EIA must thus be re-framed to address concerns regarding the HIV/AIDS impact of development schemes. An alternative discourse of social justice is put forward as an approach that will take EIA closer to achieving sustainable development.

The hypotheses put forward in the thesis were investigated through the use of both primary and secondary data sources. Extensive interviews and case studies formed the bulk of the data generated through the study. The results of the investigation showed that there are varying views on the purpose of EIA, that social issues continue to be underplayed in the process and that HIV/AIDS is considered a valid impact to be assessed in EIA. It must be noted that although HIV/AIDS is recognized as a common impact of development projects, particularly in Africa, the approach to dealing with the issue has been very different across EIAs and the issue is dealt with in an ad hoc manner.

In order to expand the applicability of environmental assessment in Africa, a framework has been developed to integrate HIV/AIDS into the EIA process. The premise behind the framework is that HIV/AIDS can impact on the viability of a development scheme and conversely, development schemes can increase the transmission of HIV. The framework considers the social, economic and cultural drivers that create living and working environments, which promote the transmission of HIV. By applying the

appropriate tools throughout the EIA process, one can identify potential impacts. Mitigation and management interventions can then be built into an HIV/AIDS component of the environmental management plan. This approach will allow environmental assessment practitioners; decision-makers and developers to better understand the critical issue of HIV/AIDS and ultimately contribute to managing the pandemic and further sustainable development in Africa.

## PREFACE

The research described in this dissertation was carried out in the School of Life & Environmental Sciences, University of KwaZulu-Natal, Durban, from January 2000 to December 2005, under the supervision of Ms Catherine Oelofse

These studies represent original work by the author and have not otherwise been submitted in any form for any degree of diploma to any tertiary institution. Where use has been made of the work of others it is duly acknowledged in the text.

*Ramasu*

18/04/06

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## LIST OF ACRONYMS

ACTAfrica	AIDS Campaign Team for Africa
AIA	HIV/AIDS Impact Assessment
AIDS	Acquired Immunodeficiency Syndrome
ARV	Antiretroviral drugs
CSIR	Council for Scientific and Industrial Research
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
HIA	Health Impact Assessment
HIV	Human Immunodeficiency Virus
IAIA	International Association for Impact Assessment
IDA	International Development Assistance
IEC	Information, education and communication
LKHP	Lower Kihansi Hydropower Project
LVEMP	Lake Victoria Environmental Management Project
MAP	Multi-Country HIV/AIDS Program for Africa
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organisation
RWSSP	Rural Water Supply and Sanitation project
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TTL	Task team Leader
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
USA	United States of America
US NEPA	United States National Environmental Policy Act
VCT	Voluntary Counselling and Testing (for HIV)

## ACKNOWLEDGEMENTS

I would like to express my gratitude to everyone who has assisted in this project. In particular I would like to thank:

The World Bank and the CSIR for supporting the vision of how environmental assessment and management can contribute to the fight against HIV/AIDS and providing the resources to allow me to do my research.

Catherine Oelofse, my supervisor, whose enormous patience, guidance and enthusiasm kept me on track to reaching my goals.

My friends at the CSIR for bullying, supporting and giving me the space to do my research. I would especially like to thank Alex for putting me on the path to contributing towards HIV/AIDS in Africa and Rob for making sure I stay on the path to finishing my dissertation.

My family, Dad, Mum, Thriya and Mahin, for always being there with love and encouragement.

Finally and most importantly I would like to acknowledge the many people who shared their time and thoughts with me. I would like to salute the courageous people affected by HIV/AIDS who are fighting the battle against the disease in Africa.

## 1. INTRODUCTION

### 1.1 Introduction

South African President Thabo Mbeki in his speech to the joint sitting of the National Assembly and the National Council of Provinces (Mbeki, 2001), quotes from the New Partnership for Africa's Development (NEPAD) that:

"The resources, including capital, technology and human skills, that are required to launch a global war on poverty and underdevelopment exist in abundance, and are within our grasp. What is required to mobilise these resources and to use them properly, is bold and imaginative leadership that is genuinely committed to a sustained effort of human upliftment and poverty eradication, as well as a new global partnership based on shared responsibility and mutual interest" (NEPAD , 2005).

This statement illustrates that the initiators of NEPAD have recognized the current challenges associated with underdevelopment in Africa and have plotted a development path aimed at sustainable social and economic upliftment on the continent. Africa's leadership recognizes that the issues faced are complex and require a holistic and integrated management approach for their solution. The ultimate aim of this development path is social upliftment. This is also the goal of the international community as expressed through the Millennium Development Goals, the Johannesburg Plan of Implementation and NEPAD and when investing in development projects in Africa (Commission for Africa, 2005).

The main mechanism to support development is through large-scale policies, programmes, plans and projects. These policies, programmes, plans and projects to promote development may however have consequences that can be both unplanned and adverse. Environmental Impact Assessment (EIA) is a formal process for evaluating the impacts that proposed developments may have on the environment (Bekhechi and Mercier, 2002). The process was originally intended to assess the impacts of development projects on the biophysical environment but as environmental practices became more established, practitioners have expanded the concept of environmental assessment to incorporate the assessment of social, economic and health impacts of development. In this regard, the application of EIA

has been extended into an holistic evaluation tool, ultimately attempting to evaluate all of the social, economic and environmental consequences of development projects (Cashmore, 2004; Sadler, 1996). Some success has been achieved in this regard but there are growing social challenges that are inadequately addressed in the EIA process.

Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome (HIV/AIDS) has been called a pandemic and a threat to the African renaissance (Barnett and Whiteside, 2002; Jackson, 2002; Hunter, 2003). The impact of HIV/AIDS on key human development indicators highlight why this epidemic is the greatest threat to public health that Africa has ever faced. Almost all measures of mortality are becoming worse. In those countries where HIV infection is well established it has become the leading cause of adult death and a major cause of infant and child mortality (Laga *et al*, 1997). UNAIDS estimates that in those countries where more than 15% of adults are infected, at least 35% of boys now aged 15 will die of AIDS (UNAIDS, 2002). In countries with higher prevalence, such as South Africa, this figure may reach 50%. Life expectancies in many countries are now falling and by 2015 are expected to drop by as much as 20 years and approach levels not seen in Africa since the early 1950s. The severity of the impact of the HIV/AIDS pandemic has been recognized and commitments made to address HIV/AIDS through the UN Declaration of commitment on HIV/AIDS (UNGASS, 2001), the Abuja Declaration on HIV/AIDS, Tuberculosis and other related infectious diseases (OAU, 2001) and in Millennium Development Goal 6 on combating HIV/AIDS, malaria, and other diseases with target 7 being to "have halted by 2015 and begun to reverse the spread of HIV/AIDS (United Nations, 2005).

## **1.2 The HIV/AIDS – development dilemma**

The relationship between HIV/AIDS and development is a complex one. On the one hand, HIV/AIDS is destroying the development gains of the last few decades and on the other, development itself is promoting HIV transmission through the impact on vulnerable groups such as the poor, women and children (Ruxin *et al*, 2005). This negative cycle is further exacerbated in Africa by widespread poverty throughout the continent. In order to break this cycle and respond positively to HIV/AIDS, it is necessary to understand the complex interactions between HIV/AIDS, development and poverty.

Across the globe, issues of health and disease are traditionally viewed as falling within the domain of the health sector and, to varying degrees, the religious sector. The approach to the HIV/AIDS epidemic was no different and, until recently, this latest threat to human health was considered a severe health crisis that needed to be handled solely by the health authorities. However, during the 1990s, the devastating impact of this epidemic on social, economic and environmental development became apparent and resulted in the epidemic being increasingly recognized as a developmental crisis (Table 1). Indeed, the impacts of HIV/AIDS are so serious that in 2000 the United Nations took the unprecedented step of labelling the epidemic a threat to global security (Annan, 2000).

There is not the space here to discuss all the impacts of HIV/AIDS but there is substantial literature that documents these impacts on virtually all aspects of society including education, the health sector, agriculture, business and numerous others. The tragedy of the AIDS epidemic is that it hits the poor the hardest and is rapidly erasing decades of slow but steady gains in standards of living. The much vaunted notion of an African renaissance is at risk of being undermined by the HIV/AIDS pandemic and certainly the idea of "sustainable" development will be un-achievable if HIV/AIDS is not addressed (Ruxin *et al*, 2005). A more detailed Treatise of HIV/AIDS is provided in Appendix 1.

Whilst there is a substantial body of literature on the impact of HIV/AIDS on development, little has been written on the reverse relationship, i.e. the impact of development on the transmission of HIV and management of AIDS. However, this situation may be changing as there is a growing interest in addressing these impacts among the bigger development agencies including GTZ, UNDP and the World Bank (Mercier, 2003). It is likely that this resurgent interest has been prompted by the realization that, in the absence of a clear strategy, a development project may actually promote the transmission of HIV and hence undermine key developmental objectives (Topouzis and de Guerny, 1999).

The transmission of HIV occurs in a social, cultural and economic milieu that strongly influences individual behavior. In other words, risky sexual practices do not automatically change once communities are provided with appropriate information. This vital fact was not appreciated in the early days of the epidemic and, instead, once the mode of transmission had been established, it was believed that education

**Table 1:** Impacts of HIV/AIDS on the social, economic and biophysical environments  
(Data sourced from Cadre, 2000; loveLife, 2001; Ashton & Ramasar, 2001)

<b>SOCIAL</b>	<b>ECONOMIC</b>	<b>BIOPHYSICAL</b>
Dissolution of households	Decrease in monthly income per capita, monthly consumption per capita and savings for households	Change in demand for natural resources as the population changes
Poor morale and stress	Loss of economically active people	Inability to utilize natural resources efficiently and effectively as labour resources are lost
Destruction of community social cohesion	Loss of institutional memory of an organization	Pollution of ground water resources through improper burial processes
Stigmatisation and isolation of people living with HIV/AIDS	Inhibition of private sector growth	Air, land and groundwater pollution from disposal of health-care waste
Abandonment and abuse of women infected with HIV	Loss of productivity	People living with HIV/AIDS are vulnerable to changes in environmental change, particularly environmental health problems leading to stricter controls of environmental pollution
Increase in numbers of street children, abuse, and sex work of orphans	Increased costs of training and replacement	Overall impediment to sustainable development progress
Overburdening of public social support systems	Loss of investment in South Africa due to unstable workforces	
Decrease in the Human Development Index	Decrease in GDP of the country	
Decrease in school attendance children heading households no longer attend school		

and awareness raising would be sufficient for people to modify their sexual behaviour and hence eliminate or reduce their risk of becoming infected. Whilst this approach worked relatively well in the wealthy industrialized world, it has failed in most developing countries.

The concept of “vulnerability” was developed and became a useful concept in understanding why HIV/AIDS spreads differentially within different populations (Barnett and Whiteside, 1996). For example, inferior economic and social status limits the ability of many women to refuse unwanted or unprotected sexual intercourse regardless of how much they know about AIDS or their desire to adopt safe practices. Societal vulnerability focuses on the contextual factors that strongly influence and constrain an individual's personal choices.

It is important, therefore, that assessment and management initiatives aimed at estimating and mitigating the impact of development projects on HIV/AIDS are not limited to only education and condom provision but rather address the range of causes and consider other potential interventions. In the longer term, issues such as poverty, political instability and addressing the role of women, i.e. the “distal” determinants of HIV infection, will have to be addressed before the epidemic can be brought under control. Environmental assessment practitioners and those responsible for addressing HIV/AIDS issues need to have this bigger picture in mind when approaching the issue of HIV/AIDS.

The HIV/AIDS pandemic is impeding development in Africa. The alarming increase in HIV/AIDS demands that it be given greater priority in all aspects of development in Africa and as such, should be included as a core component of the EIA's conducted to determine the consequences of developments projects.

### **1.3 Rationale for the thesis: A case for integrating HIV/AIDS into EIA**

The enormity and far-reaching consequences of HIV/AIDS on development and the significant but less understood impacts of development on HIV transmission have meant that a multi-sectoral approach to the problem is required. There is now widespread acceptance of the fact that HIV/AIDS cannot be managed by the health sector alone but instead requires an integrated line of attack across key societal

sectors including education, culture, religion and business. The extent of the problem, particularly in Africa has stimulated a response from various research sectors, most notably economics, sociology and social work, and the bio-medical fields (Kauffman and Lindauer, 2004). This is in keeping with the Millennium Development Goal to halt and begin to reverse the spread of HIV/AIDS (goal 6) by 2015 (United Nations, 2005). Until recently this multi-sectoral approach has been largely limited to policy directives and low-profile, isolated activities but increasingly other sectors, particularly education and transport, are focusing on the impact of the epidemic on their operations and developing strategies to prevent and manage the situation.

It is evident that development projects have the potential to impact negatively on the transmission of HIV in an area. However, development projects can, firstly, be designed to cause minimal negative impact on HIV transmission, and secondly, can have a positive impact on the management of HIV/AIDS in an area. International development agencies have recognized the role of development projects on HIV/AIDS and are taking steps to address these impacts. The German agency, GTZ, has made it mandatory for all its divisions to not only undertake HIV prevention activities but also to integrate HIV/AIDS into all development programmes and projects (Drame, 2000). The Swiss Agency for development and cooperation, SDC, has also built in HIV prevention activities into its development projects in all sectors in Mali including health, forestry, agriculture and the crafts industry (<http://www.sdc.gov.ch/>, 2000). It is apparent from reading the literature that there is still a lack of clarity and agreement on what is meant by a multi-sectoral or developmental approach to HIV/AIDS. Some organizations still interpret this approach narrowly and essentially only offer enhanced prevention programmes. Others have taken it further and have incorporated HIV/AIDS issues ranging from prevention to care and mitigation into all aspects of their activities.

There are many valid reasons for addressing HIV/AIDS in development projects. Firstly, the magnitude of HIV/AIDS in Sub-Saharan Africa has already reached extreme magnitude and is continuing to increase. Any development undertaken in Sub-Saharan Africa will be confronted with the effects of the HIV/AIDS pandemic. By recognizing this problem upfront, project task teams can plan for the disease. Secondly, the potential impact of development on HIV transmission cannot be ignored as it undermines the fundamental principles of responsible and sustainable development. Mitigating HIV/AIDS impacts is necessary to ensure the success and

credibility of development projects. Finally, HIV/AIDS has been recognized as a concern to global security and an impediment to development. The nature of HIV/AIDS demands a multi-sectoral response and thus all development should contribute to fighting HIV/AIDS. EIA theoretically provides an ideal vehicle for the pro-active evaluation of potential impacts on and of development projects.

The environmental field has however been slow in mainstreaming HIV/AIDS issues. Very little work has been done internationally to address the relationship between HIV/AIDS and environmental management resources and tools. Given the link between development and EIA, the process seems an appropriate mechanism to assess the potential negative impacts of development projects on HIV transmission and to determine the impacts of AIDS on development. For the most part, this opportunity has not been grasped and HIV/AIDS has not been widely addressed in EIA in Africa, despite it being one of the most significant social issues on the continent.

A closer examination of the treatment of social and health issues in EIA reveals that the poor response to HIV/AIDS seems to be symptomatic of a broader weakness in EIA to adequately address social issues in developing countries (Birley, 1997). The philosophical underpinnings of EIA appear to be such that the balance between the pillars of sustainable development (biophysical, social and economic) is uneven in assessment. An exploration of the causes and implications of this shortfall has become necessary to test whether EIA remains a useful tool for sustainable development, especially in developing countries where social issues often dominate the development agenda.

### **1.3 Aims and objectives of the study**

Cashmore *et al*, (2004, p 298) note that “despite sustainable development being accepted as one of, if not the, principle purpose of EIA, the implications of this concept, with a few exceptions have received minimal consideration in the literature. It has further been suggested that the maxim of sustainable development has been adopted more as a catch phrase than a purposeful goal (Cashmore *et al*, 2004). This thesis seeks to explore whether the EIA process can adequately assess the impacts of a development project on the spread of HIV/AIDS as a means of substantively supporting the goal of sustainable development. In doing so, the thesis

considers the feasibility of using the EIA process to assess HIV/AIDS impacts in development, whether these impacts are currently being assessed through the process and how the assessment of HIV/AIDS impacts could be improved in the EIA process. In order to address these issues, the research explores the theoretical context in which EIA has developed, the role EIA plays in dealing with social issues and how this role could be expanded.

The aim of this study is to investigate the development paradigm within which EIA has developed through the use of HIV/AIDS as an example of a socio-economic issue, its weakness in addressing HIV/AIDS and to develop recommendations on how this weakness can be alleviated through practical tools. The study focuses specifically on the issues experienced in Africa and draws on various African case studies of development projects funded by the World Bank.

Through the research, the philosophical framework of EIA will be uncovered and this theoretical analysis will be taken into applied research through the development of practical tools to improve EIA practice. Four objectives have been developed to meet the research aim. These objectives are as follows:

- To describe the mainstream environmental management discourse and its influence on World Bank funded development projects in Africa
- To analyse how the current EIA policy framework and practice considers the HIV/AIDS impacts of development.
- To assess whether there is a need for environmental impact assessment to consider HIV/AIDS impacts
- To propose means via a social justice framework to adapt the current environmental assessment and management tools to better consider HIV/AIDS issues

#### **1.4 Structure of the thesis**

Chapter One has provided an introduction to the research with a brief description of the issues which lead to the rationale for the study and most importantly, highlight the aims and objectives of the research.

Chapter Two introduces the theoretical framework which has influenced environmental assessment and management. This is presented through a review of the literature on ecological modernisation and its weaknesses. This chapter further addresses the limitations of EIA in addressing social issues as a result of the dominant discourse of ecological modernisation which has framed the process. The chapter is concluded by considering an alternative discourse for environmental assessment and management namely, social justice. The motivation for applying social justice especially in developing countries and how this can be taken forward in environmental assessment and management is presented.

Chapter Three focuses on the evolution of EIA as a tool to assess the impacts of development including the expanding focus of EIA. A review of the EIA process as it is applied in developing countries is also provided as well as a critique of the assessment of social and health impacts in EIA.

Chapter Four describes the background to the EIA process in World Bank and the relationship with HIV/AIDS as World Bank projects formed the focus of the research. This section also highlights the context of the research and the funding mechanisms which enabled the researcher to carry out the study.

Chapter Five sets out the methodology that was used to carry out the study and collect data to answer the research questions. The data sources, data sampling, data collection and data analysis methods are presented.

Chapter Six presents the results of a review of EIA projects as well as the inputs from an extensive interview process. These results are used to draw conclusions about how the EIA process as applied in developing countries has considered the impacts of development on HIV/AIDS and the need for ensuring that potential HIV/AIDS impacts of development are adequately assessed in the EIA process.

Having established the need to address HIV/AIDS impacts in EIA, Chapter Seven presents a framework developed by the researcher to integrate these impacts in the EIA process. This is elaborated through the presentation of a number of tools that can be used within the framework for applying a rigorous and just methodology to assessing and managing HIV/AIDS impacts.

Finally, Chapter Eight concludes the thesis with a summary of the main findings of the research.

## 2. ENVIRONMENTAL ASSESSMENT AS AN ARTICULATION OF MODERN THINKING ABOUT THE ENVIRONMENT

### 2.1 Introduction

This chapter explores the approaches which have framed environmental assessment and management globally. EIA has evolved within the context of the changing relationship between human's and the biophysical or natural environment. The changes in the paradigms framing people's interactions with the biophysical environment have informed the formulation and application of EIA. It has been noted that EIA originated from a political imperative not from scientific theory and practice predated the development of a detailed conceptual framework (Cashmore *et al*, 2004). In the absence of a clear conceptual framework, EIA practice has been guided by broader thinking about the interaction between humans and the environment. The practice of EIA is explored further in chapter 3 while the current chapter presents an overview of mainstream environmental management discourses which can be said to have influenced EIA theory. Bartlett and Kurian (1999) recognize that all writing about EIA begins with assumptions about how and why EIA works – that is, how and why EIA is expected to effect some sort of change in the world from whatever otherwise might have been. This chapter describes the environmental paradigms that have framed EIA and reflects the international thinking on these paradigms evident in literature.

The majority of research on environmental assessment and management has been undertaken within the applied fields. The development and application of tools has been the subject of numerous research studies, books and articles (Barrow 1997; Petts 1999; Sadler 1996). A much smaller proportion of research has sought to investigate the paradigm within which EIA has developed. This fundamental issue is in fact critically important to understanding the implicit assumptions inherent in the tool and how these assumptions affect the application of the tool. Environmental assessment has been identified as one of the management tools of ecological modernisation theory (Oelofse *et al*, 2006). Ecological modernisation is one of the dominant socio-ecological discourses of the current era (Fisher and Freudenburg, 2001; Lundqvist, 2000; Mol and Sonnenfeld, 2000). A background to ecological modernisation is thus necessary to understand the current environmental assessment and management discourse.

Following a review of ecological modernisation theory and weaknesses in application in developing countries, an alternative discourse for environmental assessment and management is considered. A justification for the inclusion of social justice in environmental assessment and management is provided as well as an overview of justice theories.

## **2.2 Ecological modernisation**

The concept of ecological modernisation has been attributed to German political scientists Joseph Huber and Martin Jänicke, who introduced it into the literature in the early 1980's (Mol, 2000). Ecological modernisation was articulated during a period of growing environmental awareness when documents such as *The Limits to Growth* (Meadows *et al*, 1982) and the Brundtland report (WCED, 1987) called for development and economic reforms. Ecological sustainability was recognized as a necessary condition for future growth and development. A solution was thus required which would limit damage to the biophysical environment whilst still supporting growth and development.

The concept of ecological modernisation starts from the conviction that the ecological crisis can be overcome by technical and procedural innovation (Hajer, 1995) and thus presents a solution to the environmental challenge that upholds the economic growth models of capitalist societies. As Lundqvist (2000, pg 2) describes, ecological modernisation "provides a way of working with and within the institutional logic of the market to collect the positive sum of the game".

The 1980's saw ecological modernisation become an accepted concept in Germany, the Netherlands and Nordic countries. In the last decade, the concept has been more widely used in the United Kingdom and North America (Lundqvist, 2000). The meaning and use of the concept has however varied considerably depending on the author and the context (Buttel, 2000).

Peter Christoff (1996) identifies three uses of the ecological modernisation concept:

- as technological adjustment;
- as policy discourse; and
- as belief system.

The first description of ecological modernisation as technological adjustment refers to the use of technological developments to reduce pollution and improve resource efficiency. This approach supports technical solutions to environmental problems and identifies economic growth as a necessary factor for environmental care. One of the foremost writers, Jänicke (1998, p 23) describes ecological modernisation as a “technical cost-minimisation strategy for industry and an alternative to labour-saving investment – a form of ‘ecological rationalization which will lead simultaneously to ‘greater ecological and economic efficiency’”. The central role of the private sector in ecological modernisation is clear in the technological adjustment approach.

Ecological modernisation as policy discourse has been emphasised by authors such as Hajer (1995). Ecological modernisation has been defined as “the discourse that recognizes the structural character of the environmental problematique but none the less assumes that existing political, economic and social institutions can internalize the care for the environment” (Hajer, 1995, p 25). This use focuses on the influence of ecological modernisation as environmental policy discourse. As a policy discourse, the concept is valuable in enabling governments seeking to accommodate both economic growth and ecological sustainability within the same dialogue. Ecological modernisation thus allowed groups from different positions to find a common ground in defining environmental management responses which to some extent satisfied the need for both economic growth and ecological sustainability. Hajer (1995, p 28) identified discourse trends in the strategic policy arena leading to shifts in the approach to environmental management such as anticipatory replacing reactive regulatory formulae; the pro-active role of science in policy-making; shifts to the notion of “pollution prevention pays”; and a move to more participatory practices in policy-making processes. These trends reflect the changing policy discourse towards greater recognition and acceptance of the need to proactively manage environmental degradation.

The third conceptualisation of ecological modernisation as a belief system is grounded in the recognition of environmental protection as a precondition to long-term economic development (Christoff, 1996). This radical approach focuses on a paradigm shift and change in attitudes towards greater environmental consciousness. This conceptualisation suggests a change at the most fundamental level towards a recognition of the fact that development does impact on the environment and an acceptance of the need to protect the environment.

This study draws on all three uses of ecological modernisation in that it looks at the environmental policy discourse in the establishment of environmental assessment regulations and departments, technological adjustment as the means to manage environmental impacts through environmental management plans and changes in project design and the belief system which defines how assessment practitioners, developers and the authorities view the environment.

### **2.3 Critique of ecological modernisation theory**

Understanding the background to ecological modernisation, it is clear that the concept has developed within a particular socio-economic situation, namely a neo-liberal agenda in highly developed countries. Most of the subsequent work in this field has occurred within similar developed country contexts. As researchers in developing countries begin to critique the theory, its applicability in addressing environment and development problems comes into question (Oelofse *et al*, 2006).

Blowers and Pain (1999) recognize ecological modernisation as a northern approach to the problem. "The issues it tackles and the processes by which it works assume certain conditions such as economic prosperity, an efficient market, technological advancement, an enabling state and a plural, inclusive society" (Blowers and Pain, 1999, pg 267). Where these conditions are not present, as is the case in most developing countries, the use of ecological modernisation falters. Cohen (1998) has focused on the conditions under which ecological modernisation is most likely to succeed. His work examines the importance of factors such as institutional structure, economic organization and culture.

Ecological modernisation relies on the 'enabling' state as the institutional form of governance (Blowers and Pain, 1999). In situations where neither a welfare nor enabling state is functional, ecological modernisation shifts the power base and responsibilities from the public sector (whose role it is to meet the basic needs of its citizens) to the private sector (with a primary motive of profit making) and co-operatives. In many developing countries this is reflected by the comprehensive corporate social responsibility programmes run by private companies. In many instances, companies become responsible for funding basic social services such as clinics and schools which should ideally be provided by the government. As Glasbergen (2002) recognizes, government is still the most crucial actor where the

realization of social change is concerned. In such situations where basic social needs are not adequately met by public institutions, it is mostly the citizens who suffer. When the right to basic infrastructure and services is not met by government, citizens can be left dependent on the "charity" of other stakeholders to meet these needs. They become vulnerable to global trends in business investment and the profit margins of companies. Ecological modernisation assumes that there is already a level of service provision from the side of government and the theory fails to take into consideration situations where this does not exist.

There is also an inherent assumption that all economic development follows a similar trajectory. In developing countries, this has been interpreted to mean that a polluting industrial society will move into a new super industrialized era of the future where economic growth stimulates better environmental management (Hannigan, 1995). Superimposing this progression onto developing countries assumes that these countries can and should also follow a similar industrial growth pattern to highly developed countries. Radical environmental commentators suggest that current economic development approaches, instead of being the solution to environmental problems, are actually the causes of environmental and social inequality (Beck, 1995). Promoting the technological adjustment approach to ecological modernisation could thus lead to a further growth in social problems. Spaargaren (1997, p 169), a supporter of the theory, recognizes that the ecological modernisation of consumption must focus on social processes that are hidden behind the changes in consumer behaviour. However, the magnitude of environmental degradation and poverty in many developing countries makes ecological modernisation untenable (Blowers and Pain, 1999).

Dryzek (1997) identified ecological modernisation as one of two sustainability discourses (the other being sustainable development). However, the focus of ecological modernisation on economy and technology has led to a limited focus on social issues (Castells, 2000; Hajer and Kesselring, 1999; Blowers and Pain, 1999). As Harvey (1996) and Blowers (2000) point out, in their concern for ecology, they often marginalize or ignore issues of social justice. Environmental concerns have thus gained greater prominence in the sustainability debate and the environment has become decoupled from social and political ideologies such as socialism, liberalism, and feminism (Giddens, 1994). In the process of focusing on bio-physical aspects of the environment, many of the social concerns have been sidelined. In developing countries, where environmental issues are closely tied to socio-economic and

political concerns, addressing the environmental issues without the other concerns will not lead to sustainable development.

Another concern about the appropriateness of ecological modernisation lies in its apparent incompatibility with global sustainable development (Blowers, 2000). Whilst ecological modernisation seems to be a useful model at the nation-state level, there is very little consideration given to global issues such as climate change and transboundary pollution. The transference of environmental impacts to another nation-state is not considered and the technological adjustment is thus seen to work.

As illustrated, the theory of ecological modernisation is not without its weaknesses. Most apparent seems to be the northern approach that limits its applicability in the developing world and the technical rational approach which it favours. Ecological modernisation developed in response to the recognition of limited ecological resources. The paradigm developed at a time of growing environmental consciousness and represented a gradual progression from a largely economic-based model of development. In common with earlier thinking, ecological modernisation is characterized by a technocratic and positivistic approach that held science and technology as the providers of solutions to development problems. However, in an increasingly complex world, particularly experienced in developing countries, a weak application of ecological modernisation is likely to lead to weak sustainability (Figure 1).

#### **Weak ecological modernisation**

Economistic  
 Technological (narrow)  
 Instrumental  
 Technocratic/neo-corporatist/closed  
 National  
 Unitary (hegemonic)

#### **Strong ecological modernisation**

Ecological  
 Institutional/systemic (broad)  
 Communicative  
 Deliberative/democratic/open  
 International  
 Diversifying

**Figure 1:** Types of ecological modernisation and their relationship to sustainability (adapted from Christoff, 1999, pg 490)

Within the developed world context however, ecological modernisation gained support and has become the environmental policy discourse favoured in regulation including the establishment of environmental assessment and management tools.

#### **2.4 Mainstream environmental assessment and management as an outcome of the ecological modernisation paradigm**

The emergence of environmental issues in the early 1970s led to the environment becoming recognized as an independent field of governance. A key element of the ecological modernisation approach was the attempt to make environmental degradation calculable. Hajer (1995) describes ecological modernisation as framing environmental problems by combining monetary units with discursive elements derived from the natural sciences and thereby providing a common denominator through which costs and benefits of pollution can be taken into account. EIA emerged within this context to provide a process for quantifying environmental impacts and provide a means of comparing the costs and benefits of development impacts.

The use of EIA as a decision-aiding process occurred at a rapid pace because environmental protection was essentially seen as a “positive-sum game” where economic development and environmental protection were seen as mutually supportive (Lundqvist, 2000). Within the broader context of ecological modernisation, the idea that pollution prevention pays was becoming more acceptable. By applying the EIA process and introducing environmental management plans, it was therefore perceived that the concept of sustainable economic development would be achievable. Environmental protection thus became just another management problem within the context of economic development and EIA became the tool to measure and support management decisions on environmental impacts.

Hajer (1995) identified a number of shifts in the policy discourse that reflect ecological modernisation thinking. The EIA process was established within this framework of thinking and reflect some of these shifts (Table 2).

**Table 2:** Shifts in environmental policy discourse that have framed the EIA process (adapted from Hajer, 1995)

<b>Shift in environmental policy discourse</b>	<b>EIA as a reflection of the shift in policy discourse</b>
The traditional judicial administrative structures that applied a 'react-and cure' approach were replaced by 'anticipate-and-prevent' approach to regulation.	EIA is applied prior to a development being approved and initiated in order to prevent harmful environmental impacts
The role of science in environmental policy-making and decision-making increased. The concept of ecological limits became important in determining the capacity for development.	The EIA process uses scientific methods to provide information on the extent and significance of impacts to environmental systems.
The shift from the view that environmental protection increases costs to 'pollution prevention pays' increased the need for pro-active assessment and management.	EIA promotes mitigation and management interventions to prevent environmental impacts through Environmental Management Plans.
Nature was conceived as a public good and this led to the introduction of measures to internalize economic costs of environmental degradation and promote the conservation and management of natural resources.	EIA is used as a process to quantify environmental costs and benefits of development so that the environmental costs can be weighed against economic benefits.
The burden of proof for environmental damage shifted from the damaged party to the suspected individual polluter.	Potential polluters are required to undertake an EIA to prove that a development is environmentally acceptable prior to approval.
A more participatory approach to decision-making was employed.	Public participation is an important component throughout the EIA process but especially in scoping.

The EIA process thus developed as a means to quantitatively identify the potential negative impacts of development and identify mechanisms to mitigate or minimize these negative impacts. The ecological modernisation approach favoured the use of existing political, economic and social institutions to internalize the care of the

environment (Hajer, 1995). The management of environmental impacts in this context did not generally require a radical change in approach but rather the application of more pollution prevention technologies in existing development processes. "End-of-pipe" technologies were used to manage the environment. This approach focuses on the environment in terms of how environmental problems are managed rather than dealing with structural problems that cause environmental problems. Within this context, the EIA process led to a strong emphasis on the management of potential negative impacts. Industrial development was thus able to continue as long as the appropriate technological measures could be put in place to minimize the negative impacts. Environmental protection thus played a subservient role to industrial politics (Hajer, 1995).

Fuggle (2004, p 3) recognised that "for the first decade of EIA little, if any, explicit formulation of theory occurred" but that EIA was implicitly based on a modernist information processing model. The influence of ecological modernisation on EIA theory is evident when considering the similarities between the ecological modernisation approach and EIA models (Table 3).

In theory, EIA provided a mechanism to introduce the pro-active assessment of environmental impacts in a scientifically defensible, participatory and quantitative manner that allowed potential polluters to internalize and manage the costs of using natural resources. It is therefore positioned firmly within an ecological modernisation paradigm. The position of EIA within the mainstream ecological modernisation discourse can be challenged when assessing social and health impacts which cannot be easily measured in a similar scientifically defensible and quantitative manner as economic and ecological impacts.

## **2.5 Conflict between the ecological modernisation approach and EIA needs in developing countries**

In practice, the weaknesses of ecological modernisation are mirrored in the weaknesses of the EIA process. A review by Lee and George (2000) suggests that EIA processes and practices in the developing world have largely followed the systems used in the developed world. This has been strongly influenced by the role of international organizations such as the World Bank and the United Nations

**Table 3:** Similarities between models of ecological modernisation and EIA

Basis of the models	Ecological modernisation approaches (from Christoff, 1996)	EIA models (from Bartlett and Kurian, 1999)
Reflects the positivistic approach to gathering and using scientific information in decision-making	Weak ecological modernisation is typified by a technological and instrumental approach	<b>Information processing model:</b> EIA as primarily a technique for generating, organising and communicating information
Reflects conservative changes to the current system of production and consumption which work from within the system itself	<b>Technological adjustment:</b> Refers to the use of technological developments to reduce pollution and improve resource efficiency. This approach supports technical solutions to environmental problems and economic growth as a necessary factor for environmental care.	<p><b>Symbolic politics model:</b> EIA as an iterative mechanism for creating meaning, evoking emotional response, and reaffirming moral commitment to growth or a technique for the duplicitous legitimation of the exercise of power by the powerful</p> <p><b>Political economy model:</b> The policy impact of EIA occurs primarily through the way it alters financial opportunities, risks and constraints with the attendant internalisation of externalities leading ultimately to anticipation and prevention of environmental harm.</p> <p><b>Organisational politics model:</b> EIA may change the internal politics of an organization by establishing teams to undertake it or to address it in some way</p>
Reflects initiatives that seek to create a platform for dialogue between groups from previously opposing sides on environmental management	<b>Policy discourse:</b> The concept enables governments to accommodate both economic growth and ecological sustainability within the same dialogue	<b>Pluralistic politics model:</b> EIA has a policy impact because of the increased participation, involvement and leverage that it facilitates for the public and for various organised interests.
Reflects the notion of change in how the environment is viewed and valued through new value systems	<b>Belief system:</b> Recognition of environmental protection as a precondition to long-term development. This radical approach focuses on a paradigm shift and change in attitudes towards greater environmental consciousness.	<b>Institutional model:</b> The successes and effectiveness of the EIA is evaluated by the degree to which values are transformed, ways of doing things are changed, and orientations and perspectives on what ought to be done are modified to incorporate environmental values.

Environment Programme who have sponsored EIA development around the world according to generic processes developed in the northern hemisphere.

Oelofse *et al* (2006) identified a number of weaknesses in the application of the ecological modernisation approach to environmental assessment and management in South Africa:

- A modernist and technical approach confined to the realm of scientific experts
- Environmental impacts couched as a matter of business efficiency rather than a fundamental threat to systems
- Problems of environmental degradation and poverty in developing countries undermine ecological modernisation which assumes economic prosperity, an enabling state and inclusive society
- Social and development issues are side-lined as they are difficult to measure in a scientific and technical process that deals with defined, quantifiable and measurable impacts.
- Public participation processes assume an inclusive society and in a developing country can ignore the needs of the less vocal and scientifically uneducated members of society.

The expression of these weaknesses in the EIA process generally will be explored further in chapter 3 and a particular focus on how these weaknesses affect the assessment of HIV/AIDS impacts in EIA is investigated in the research through interviews and case studies.

## **2.6 Justice theory as an alternative paradigm for environmental assessment**

The earlier sections of this chapter described the ecological modernisation approach which influenced the development of EIA in a time of environmental degradation. Ecological modernisation highlighted a positivistic approach that sought solutions to environmental problems in human ingenuity and technological progress. These development models that are being discredited as environmental damage increases, increasing numbers of the population are consistently unable to meet their basic needs and undemocratic regimes, entrenched elites and corruption and inefficiency prevail (Secrett, 2004, pg 154). The Global Environmental Outlook confirmed that

business-as-usual policies are not working for the common good, for the poor, for the environment or future generations (UNEP, 2002).

The conceptualization of EIA within ecological modernisation led to the development of a technical-rational model of assessment that is purported to be free of value-judgements. Much of EIA policy assumes that this model holds and as such is starkly focused on the process rather than the ethical rationale in applying the process. However the concept of science as being neutral and objective must be questioned. Owens *et al* (2004) recognize that techniques that are ostensibly neutral may in fact have an in-built tendency to support particular outcomes. If we recognize the interface between science and policy (through decision-making) is not neutral, then there is a need to define a particular value system to EIA application (Owens *et al*, 2004 and Beattie, 1995). According to Owens *et al* (2004, p 1948) "value rationality must reassert itself against instrumental rationality." Similarly, Richard Fuggle in his presidential address at the International Association for Impact Assessment conference in Vancouver in 2004 made a call for IAIA to "give greater attention to the ethical values and intellectual theory on which Impact Assessment is based" (Fuggle, 2004, p 3). This thesis argues that the notion of scientific truth does not hold and therefore EIA which lacks a value base is insufficient to support sustainable development. This is supported by Cashmore *et al* (2004, p 296) who note that "technical issues, whilst significant, may amount to less of a barrier to effective EIA than issues pertaining to its role and form in relation to societal debates that fundamentally concern values and priorities".

As social and health impacts are often far over-shadowed by biophysical impacts in developing countries (Lee and George, 2000), it is critical that these issues are appropriately valued and rigorously assessed and managed through the EIA process. Ecological modernisation thinking which assumes that an enabling state deals with social and health problems, does not make allowances for these concerns to be appropriately prioritised, assessed and managed through EIA. This raises the need to seek an alternative framework to ecological modernisation for EIA in order to achieve sustainable development, with a balance of all three of the biophysical, economic and social spheres. Blowers and Pain (1999, p 269) in considering the future of cities ask the question "If ecological modernisation in cities cannot, in the end, ensure sustainable development, then what can?" An argument put forward from the radical perspective is that social justice provides a means of dealing with

issues of equity in environmental decision-making and could be used to ensure that the assessment of social and health issues in EIA is fair.

It is further recognized that a human rights approach is fundamental to sustainable development (Adebowale *et al*, cited in Bigg, 2004). A human rights perspective to sustainable development moves from the 'traditional green' issues to a wider approach of protecting the most vulnerable in society. Sustainable development therefore requires that meeting the needs of present and future generations means being able to meet every basic need for all people – not just some needs, some of the time, or simple those of the relatively rich (Secrett, 2004). Justice is thus an integral part of achieving sustainable development. The Johannesburg Plan of Implementation makes specific reference to the need for justice, articulated as follows, "Peace, security, stability and respect for human rights and fundamental freedoms, including the right to development, as well as respect for cultural diversity, are essential for achieving sustainable development and ensuring that sustainable development benefits all" (United Nations, 2002, para 5).

## **2.7 Definitions of justice**

According to Harvey (1996, p 330) justice is a "socially constituted set of beliefs, discourses and institutionalizations expressive of social relations and contested configurations of power that have everything to do with regulating and ordering material social practices within places for a time." Despite a general consensus and agreement on the need for justice, there is some confusion as to what exactly gets applied (Harvey, 1996). This problem stems from the diversity of possible justices that have been defined (Low and Gleeson, 1998).

Social justice is about a universal human right to live in a fair world (Taylor, 2003). The concept of social justice has been in use over most of human civilization and relates to how people interact with other people. Harvey (1973, pg 97) describes social justice as a particular application of just principles to conflicts which arise out of the necessity for social cooperation in seeking individual advancement. In more recent times, the understanding of the degradation and pollution being caused to the biophysical environments and impacting on certain groups of people has led to recognition of a different perspective: that of fairness in our relationship with the biophysical environment. Environmental justice is about the fair distribution of good and bad environments to humans (Low and Gleeson, 1998). The third position on

justice, ecological justice is about fair distribution of justice among all the inhabitants of the planet, not just human beings (Low and Gleeson, 1998).

Social, environmental and ecological justice need to be applied concurrently in order to achieve sustainable development. Harvey (cited in Blowers and Pain, 1999) suggests that social relations be used as the explanation for environmental change and that the emphasis on social justice is a way to achieve environmental justice. Social justice thus becomes the basic approach that must apply in decision-making processes.

Blignaut and de Wit (2004, section 18.4.2) have defined five practical principles of justice which provide a useful basis for considering HIV/AIDS issues in EIA:

1. *Participatory justice*

Based on the first principle of Rawls, all have equal right to participate in society, which comprises an antithesis to marginalization (Blignaut and de Wit, 2004). No action, whether lawful or unlawful, could be considered just if it excludes some members of either the present generation or any future generations from enjoying the privilege to participate in society. This would also imply the privilege to observe and interact with other creatures, hence, should any action of the present society lead to the extinction of another species, it should be considered unjust since it precludes future generation from interacting with it. In the context of HIV/AIDS, this principle demands that a transparent, open and participatory approach is taken to the scoping and assessment of issues. Women, child-headed households and other vulnerable groups should be given the opportunity to participate in the EIA process and their issues of concern must be recognised and legitimised through the EIA assessment.

2. *Commutative justice*

Commutative justice calls for fundamental fairness in all agreements and exchanges between individuals or social groups. In its economic application, it calls for equality in transactions. Commutative justice underscores the importance of the relationship between buyers and sellers of goods and services. In the context of HIV/AIDS impacts associated with development it is important that the costs of development to local communities and labour forces are properly weighed against the benefits of development. For example, the potential benefit of jobs must not be allowed to overshadow the costs of breaking down the social systems through introducing new people to the community. Both the costs and benefits must be discussed in

development agreements and commitments should be made by the developer to finance both jobs and HIV/AIDS interventions.

### 3. *Distributive justice*

In its broad sense, distributive justice is concerned with the fair allocation of the benefits of a particular society (i.e. income, wealth, power and status) to its members. It can be seen as an expression of Rawls's first principle. Distributive justice pertains to the fair distribution of goods and services to people, and the accessibility, in order to satisfy basic needs. In accordance with this form of justice, it can be argued that government has a responsibility to ensure the fair distribution of essential goods and services that are needed for development. This most fundamental principle can be articulated in terms of HIV/AIDS impacts as ensuring that both costs and benefits are equitably distributed across all stakeholders affected by a development. For example, job benefits of a new development are provided to skilled labour from outside an area whilst the local community carry the costs of resettlement. This uneven distribution of costs and benefits could create social inequalities that lead to increased transmission of HIV.

### 4. *Contributive justice*

This form of justice pertains to both principles of Rawls's social justice. Contributive justice implies that an individual has an obligation to be active in society (individual responsibility), and that society itself has a duty to facilitate participation and productivity without impairing individual freedom and dignity. One of these duties would therefore be the creation of equal opportunities. This form of justice also implies that the generators and distributors of the resources have a responsibility to add value to, and maintain their accessibility, in such a manner that it benefits the society. Based on the viewpoint that contributive justice implies society's responsibility to facilitate participation and enhance productivity, it can be argued that society also has a responsibility to create an environment that will stimulate creativity and productivity - e.g. the encouragement of R&D programmes. In the context of development impacts on HIV/AIDS contributive justice can be related to the opportunities that are provided for jobs in a new project. There should be gender equality in job provision in order to ensure that women do not become (or continue to be) second-class citizens in their community.

### 5. *Retributive justice*

This category of justice, also known as punishable justice, refers to the fair and just punishment of the guilty. Retributive justice is also applicable to Rawls's first principle. For example, this form of justice can be applied to protect the basic human right of access to resources needed to exercise other basic human rights. Retributive justice is rarely applied in terms environmental management because there is a general weakness in EIA follow-up, particularly in developing countries. In terms of HIV/AIDS issues, retributive justice is necessary in terms of holding developers to their commitments and responsibilities in terms of providing HIV/AIDS prevention and management interventions to their labour force and the local community.

These principles should be applied within and throughout the EIA process in order to ensure that there is fairness in public participation process, in the decision-making process, in the management and mitigation measures that are agreed upon and finally, in action taken against people not fulfilling the conditions of approvals. The application of principles of justice in assessing HIV/AIDS through EIA will be investigated through the research and consideration will be given to how the principles can direct a new framework for assessing HIV/AIDS in the EIA process.

## **2.8 The need for social justice in developing countries**

The need for social justice is particularly evident in developing countries where disparities in wealth, status and access to resources amongst the population are greatest. The Human Development Report (UNDP, 2004) clearly shows that the gap between the 'haves' and the 'have nots' is increasing. At an international level, a commitment has been made by many countries, including most African countries, to introduce greater equity in society. This has been made explicit in the Johannesburg Plan of Action at the World Summit on Sustainable Development (United Nations, 2002) and the Millennium Development Goals (United Nations, 2005) which have at their heart, the re-distribution of costs and benefits of development amongst the world's population. The need for greater social justice has been recognized in principle, if not nearly as well in practice. Smith (2004, pg 5) notes that economic growth continues to be accompanied by degrees of inequality and poverty within and among nations. Smith (2004, pg 4) in looking at the South African city argues that although the right to an environment not harmful to people's health, and to sustainable

development is entrenched in the 1996 Constitution of Republic of South Africa, "it is hard to detect much progress towards a liberal-egalitarian (or Rawlsian) conception of social justice". Dunning (cited in Smith 2004, pg 5) similarly recognizes that there is an urgent need for a "paradigm shift" in thinking about the [capitalist] system to ensure social acceptability and long-term sustainability." The burden of HIV/AIDS creates additional obstacles to further progress in the direction of social justice as equalisation, particularly in Africa (Smith, 2004).

Within this broader context, striving to make social justice a reality becomes a greater imperative across all aspects of life. Smith (2004) recognizes that humanizing capitalism is not a self-generating force, but must be achieved by the constant exertion of pressure. This implies that social justice must be explicitly introduced into processes that affect the distribution of costs and benefits. Explicitly adopting principles of social and environmental justice in environmental management will contribute to the broader project of democratization and shift practices away from the efficiency mainstream approach to environmental assessment (Oelfose *et al*, 2006). As one such environmental management practice, EIA thus needs to include a conscious effort to introduce social justice issues.

## **2.9 Justice within Environmental Assessment and Management**

EIA is largely about how we manage the trade off between negative and positive impacts of human activity on the environment and of environmental change on people. It requires planning and decision-making to meet the needs of people, who we recognize only exist within and because of the natural environment (Mebratu, 1998).

However with limited resources and extensive demand on these resources, the question in decision-making is really about which people's needs get met and which do not. Within the framework of sustainable development, this question also draws in the needs of future generations in resource allocation. Ecological modernisation recognizes the limitations of the environment resource base but is founded on the belief that technological solutions can deal with impacts of development, particularly those relating to the environment. This approach has not worked successfully as technological solutions have not been able to alleviate many social and environmental problems and in recent times there is a growing divide between the

rich and the poor of the world. Recognising that a 'win-win' solution is not also possible, justice forms an ethical pillar which can be used to decide on the distribution of goods and services, both environmental and social.

It has been established that EIA in particular is a tool for assessing the potential impacts of development on the environment. Through time and particularly in developing countries, the environment has come to be viewed broadly to include the biophysical, social and economic spheres. The current approach to EIA which has largely developed within an ecological modernisation paradigm, has clear weaknesses in terms of adequately addressing social and health impacts. This results from fundamental biases in EIA which leads to a focus on the biophysical environment and has limited consideration for the social environment as discussed in section 2.5.

Applying a social justice approach will bring human needs and concerns to the forefront of the development debate. This is in keeping with the widely accepted Brundtland definition of sustainable development as "development that meets the need of current generations without compromising the ability of future generations to meet their needs and aspirations" (WCED, 1987) which places humans at the centre of the sustainable development argument.

Harvey (1996) argues that it is the process that we follow which is more important than the form that we eventually take. Within this context, the process of how an EIA is undertaken can be more important than the outcomes of the EIA itself. It is important in the assessment of impacts to apply principles of justice. When applying justice principles to a development, it becomes necessary to consider the needs of all people and the development options that benefit the greatest proportion of the population; to ensure that resources are available to deal with particularly problematic issues; and that the most vulnerable populations are not further impacted upon by decisions that are taken. In the light of the impact of HIV/AIDS on development, this becomes more pertinent. The EIA process thus needs to highlight the costs and benefits of development in the light of who will benefit and who will lose, the key issues that require special attention and the opportunities to benefit the poorest and most vulnerable affected parties. The shift from an ecological modernisation to a social justice approach in EIA will move the process away from a mechanistic activity-driven information gathering exercise towards a principle-based, socially responsible process that is founded on the acceptance that distributive

justice and sustainability are the foundations when assessing the significance of impacts of development. A social justice approach therefore creates a more inclusive and equitable basis for assessing issues such as HIV/AIDS than the technocratic approach favoured through ecological modernisation.

## **2.10 Conclusion**

Ecological modernisation has its groundings in developed countries and as with any paradigm, assumes certain conditions in society. These included the presence of an enabling state, an inclusive society and economic prosperity. These conditions generally result in a high standard of living and qualities of life for individuals within the society as basic social needs are met. As a consequence, assessing and managing development impacts on the economy, society and governance were not as imperative as those on the biophysical environment as the countries already have established systems to deal with the socio-economic and political impacts. Within this context, EIA evolved as a planning tool to assess the impacts of development on the biophysical environment with little consideration of the socio-economic environment.

The characteristics of ecological modernisation and the assumptions of the state of society present obstacles to the satisfactory application of this theory globally. Developing countries in particular do not often have the enabling state, inclusive society and economic prosperity that gives legitimacy to ecological modernisation. In practice, this has translated into weaknesses in tools that have an ecological modernisation perspective from being properly applied in developing countries. EIA is one such example of a tool that has been transferred from developed countries to developing countries with little modification to the process or the approach to issues. It is contended that as a result, EIA tends not to be as effective in developing countries as it is unable to deal with many of the fundamental socio-economic and political issues present.

Harvey (1973) argues that it is vital, when encountering a serious problem, not merely to try to solve the problem in itself but to confront and transform the processes that gave rise to the problems in the first place. A problem exists in that social and health impacts are continuously being overlooked in promoting economic development. Not only are these impacts being overlooked but it has also been

argued that economic growth is accompanied by degrees of inequality and poverty, within and among nations (Smith, 2004). Part of the problem lies with the EIA process which is supposed to assess impacts of development but often fails to adequately assess the social impacts. The EIA process has developed within a technical-rational frame and has lacked an explicit values-based foundation. In order to support sustainable development, a justice approach is required to ensure that intra- and inter-generational equity and ecological integrity is maintained.

The discourse of justice addresses inequity in the distribution of costs and benefits within society. Adopting a social justice approach to development thus requires an interrogation of the EIA process and possibly a transformation of the process itself. Scott and Oelofse (2005) argue that new methodologies for social assessment are required to ensure that the rights and needs of marginalized urban dwellers are taken into account. A review of whether a transformation towards a values-based approach to EIA is in fact taking place with respect to HIV/AIDS impacts and how the process can be improved through the application of new methodologies for assessing HIV/AIDS impacts is explored further in this thesis.

### 3. ENVIRONMENTAL IMPACT ASSESSMENT

#### 3.1 Background to EIA

Since its inception, various definitions and descriptions of EIA have been forwarded in an attempt to put the tool into perspective. Munroe *et al* (cited in Smith, 1993) describe EIA strictly as an information provision mechanism by defining it as a process which attempts to identify, predict and assess the likely consequences of proposed development activities. Beanlands and Duinker (1983) recognise a focus on the environment by defining EIA as a process or set of activities designed to contribute pertinent environmental information to project or programme decision-making while Clark (1983) on the other hand explicitly puts forward a broader definition of EIA as a basic tool for the sound assessment of development proposals to determine the potential environmental, social and health effects of a proposed development.

Common to most descriptions of EIA is that it is a policy and management tool for both planning and decision-making (Modak and Biswas, 1999). The various definitions present a consistent view of "EIA as a technique to improve the database for decision-making" (Smith, 1993). The less tangible issues that impact greatly on the process, such as: political will, transparency, balancing competing needs/interests, deriving trade-offs, and human values are not explicitly included in the scope of these definitions of EIA.

In assessing the various definitions of EIA, it is clear that there is a great deal of subjectivity. Most important, to the application of EIA is establishing the scope of the assessment as delineated through the definition of the "environment". The perceived scope of the environment can be established through understanding the purpose of EIA and the "environmental" problems which it aims to address.

Pre-1970, decision-making was predominantly based on the economic and technological feasibility of projects. Entering the 1970's with environmental disasters such as the Love Canal (1972) and Bhopal (1984) making headlines, people began to recognize the need for decision-making around development to be informed by the potential environmental impacts associated with projects. This need was catalysed by a number of factors including:

- a tradition of rational planning;
- a new level of public concern about the environment;
- the increasing scale and wider repercussions of major development schemes; and
- the failure of project appraisal and review procedures to account for evident ecological and community impacts (O’Riordan and Sewell, cited in Sadler, 1996).

In considering the historical origins of EIA, the process was first legislated through the United States National Environmental Policy Act (US NEPA) in 1969. The promulgation of the US NEPA was prompted by various factors including the concern on the part of the public and non-governmental organisations for the environment, largely driven by the activities of the environmental movement (Barrow, 1997). The rise in environmental awareness highlighted the need for tools to address environmental impacts. The EIA process was introduced as a means to address society’s concerns by improving the level of environmental information provided for decision-making. The incorporation of the EIA process in national regulations in the USA through the US NEPA in 1969 began the process of mainstreaming of environmental assessment in development decision-making. This was followed by the widespread introduction of EIA legislation around the world. Smith (1993, pg 8) noted that environmental impact assessment grew up in an era dominated by a ‘technocratic perspective to problem solving’ and with an emphasis on biophysical impacts, i.e., an era characterized by ecological modernisation. As a result of the ecological modernisation paradigm of the time and the concern specifically for biophysical impacts, EIA was rooted in a positivistic assessment of biophysical impacts and socio-economic impacts received less attention in the process.

In the 1990’s the focus of the international development debate shifted towards sustainable development (WCED, UNCSD). The 1992 United Nations Conference on Environment and Development (UNCED) gave considerable impetus to the adoption of sustainable development objectives and importantly, recognized the role of environmental assessment in their attainment (Lee and George, 2000). Principle 17 of UNCED reinforced existing tendencies of the time to improve procedures and methodologies for more integrated forms of appraisal and decision-making in the development process, and highlighted the need to develop methods for assessing the significance of environmental, economic and social impacts according to

sustainable development criteria (UNCED, 1992). Whilst new tools are being developed for impact assessment, EIA remains the most widely applied impact assessment tool in the world. EIA is thus being called upon to provide more integrated information for decision-makers (Sadler, 1996). Social and political issues have taken on a greater priority in society and governments and the private sector are being called upon to address these issues in development. A number of authors support the extension of EIA's purpose to promote sustainable development (Sadler, 1996; Smith, 1993; Barrow, 1997).

The shift in thinking from EIA as a tool for assessing biophysical impacts to a tool for assessing sustainable development impacts requires greater integration of social and economic issues in the process. Within these changing contexts, EIA must evolve to remain effective. Some of the questions to test the effectiveness of EIA as a tool for sustainability assurance are as follows: Can EIA adequately assess social and economic issues of development? Does EIA have the capacity to integrate social, economic and environmental factors as is necessary for sustainable development? Are there limits to EIA's applicability necessitating the use of alternative tools for sustainable development? What then is the role of EIA in assessing sustainable development concerns? These questions have been the subject of literature and some of the material is reviewed below. These questions are also considered further on in this dissertation in relation to the assessment of HIV/AIDS in the EIA process.

### **3.2 Contextualising assessment of social and health issues in EIA.**

Although the social dimension was specified in US NEPA, it was rarely included in much detail in early assessments (Taylor *et al*, 1995). The growth in development concerns led to the institutionalization of social and health issues in the EIA process. As expressed by Kirkpatrick and Lee (1999) "integration" has become a favoured means of increasing the effectiveness of environmental assessment and social and economic appraisal in decision-making in order to promote sustainable development. This has been supported by the development of new impact assessment tools such as social impact assessment and health impact assessment.

Burdge and Vanclay (1996) define social impact assessment as the process of assessing or estimating, in advance, the social consequences that are likely to follow from specific policy actions or project development. Vanclay (2004, pg 269) recognizes that social impact assessment is a component of EIA, especially when

“the environment” is understood broadly. Although there is no prescriptive methodology for social impact assessment, ten basic steps have been identified for the process. These are public involvement; identification of alternatives; profile baseline conditions; scoping; projection of estimated effects; prediction of responses to impacts; estimated indirect and cumulative impacts; changes in alternatives; mitigation; and monitoring (Vanclay, 2000). The International Association for Impact Assessment has articulated core values for social impact assessment which makes reference to the need for justice in assessment (Vanclay, 2003). The core values are:

1. There are fundamental human rights that are shared equally across cultures, and by males and females alike.
2. There is a right to have those fundamental human rights protected by the rule of law, with justice applied and fairly to all, and available to all.
3. People have a right to live and work in an environment which is conducive to good health and to a good quality of life and which enables the development of human and social potential.
4. Social dimensions of the environment – specifically but not exclusively peace, the quality of social relationships,, freedom from fear, and belongingness – are important aspects of people’s health and quality of life.
5. People have a right to be involved in the decision making about the planned interventions that will affect their lives.
6. Local knowledge and experience are valuable and can be used to enhance planned interventions (Vanclay, 2003).

A further tool specifically for the assessment of health impacts, health impact assessment, has been considered both a stand-alone process as well as a component of both EIA and social impact assessment (Birley 1995, cited in Vanclay, 2004). Health impact assessment can be seen as a natural development of EIA, treating human communities as an important part of the ecosystems to be protected (Kemmm, 2003). Health impact assessment relies on understanding causal links so as to predict the human health consequences of proposed actions. Epidemiology and toxicology produce evidence for some causal links whilst sociology and psychology provide other means of predicting how humans and human societies will react to changing circumstances (Kemmm, 2003). Generalised steps in health impact assessment include deciding whether to undertake a health impact assessment (screening); scope how to undertake the assessment; identify and consider the evidence of health impacts in appraisal; formulate and prioritise recommendations;

engage with decision-makers; and ongoing monitoring and evaluation (Scott-Samuel *et al*, 2001).

Although both tools have a large degree of flexibility in their methodologies, the basic steps of both social and health impact assessment are aligned with EIA. In theory it is thus possible to integrate the processes under the EIA process and in practice, social and health impact assessments have been carried out within the EIA process. This is illustrated in the case studies presented in the research.

### **3.3 Application of EIA**

The purpose of EIA has evolved over time from the assessment of biophysical impacts to more holistic assessment in support of sustainable development. Whilst the use of EIA as a tool for sustainability may seem like a good idea, a number of factors must be considered before it is possible to confidently establish the contribution of EIA to sustainable development. Firstly, consideration must be given to the purpose of EIA and the expectations of the process. Secondly, as a potential tool in support of sustainable development, it is imperative to review the success of EIA in integrating the social, economic and biophysical aspects of the environment – a fundamental aspect of sustainable development thinking. A third consideration is the disparity between the theory of EIA and its application, particularly in developing countries which tend to be under-resourced. A fourth consideration and the real test of an EIA is its impact on decision-making and whether the information provided in an EIA is used to make decisions that are guided by sustainable development. Finally, in applying EIA recognition must be given to its limited focus on the project level. In reviewing each of these factors, particular attention has been paid to the assessment of social and health impacts so as to provide a context for understanding the assessment of HIV/AIDS in the EIA process.

#### **3.3.1 Realising the expectations of the EIA tool**

If one considers the original purpose of EIA which had a biophysical emphasis, it could be argued that the EIA process has done well in ensuring that development considers biophysical impacts. EIA has in fact been the forerunner to a number of integrated environmental management tools globally including strategic environmental assessment, cumulative effects assessment, and life cycle

assessment, all of which raise awareness of the biophysical impacts of development (Sadler and Weaver, 1999).

In theory EIA is a ready-made tool for applying sustainable development criteria. The role of EIA in sustainable development is recognized in the Rio Declaration on Environment and Development principle 17 (United Nations, 1992), which specifically calls for EIA to be undertaken for proposed activities that are likely to have a significant adverse impact on the environment. Sadler and Jacobs (1989) argue that EIA and Strategic Environmental Assessment (SEA), broadly interpreted, are keys to sustainable development. However, as originally introduced in the United States and subsequently developed elsewhere, environmental assessment predates the sustainable development concept and does not automatically include its goals. Unless sustainable development criteria are explicitly included among those used in the assessment, EIA is not necessarily a suitable tool for sustainable development (George, 1999). Rees (1988) identified a number of obstacles to the role of environmental assessment in achieving sustainable development. These include the fact that not all development proposals are assessed, the EIA is locally-specific and focuses on the project level, and cumulative impacts are not adequately assessed. Rees (1988) is particularly critical of the positivist paradigm that shaped the EIA approach. The positivist paradigm reflects an ecological modernisation approach to environment and society as mechanical systems amenable to analysis and manipulation. Rees (1988, pg 282) criticizes the paradigm as being "inadequate, if not naive".

It would thus appear that whilst EIA may be meeting the need for an assessment of biophysical impacts, it is failing in promote sustainable development. Caldwell (cited in Cashmore, 2004) notes that EIA has performed better when compared against past neglect than against sustainable development goals. Two notable aspects of this failure include the inability to apply a balanced assessment of social, economic and biophysical impacts and the technocratic approach to assessment which has evolved out of the positivist paradigm.

### ***3.3.2 Integration of various tools to strengthen EIA***

Finsterbuch (1995) has argued that social and poverty issues are more often at the core of environmental impacts in developing countries, and must therefore be

addressed. Ignoring social issues in an EIA can produce a skewed assessment that challenges the effectiveness of the tool. According to Ackoff (1995), to do the wrong thing right is to do it efficiently but not effectively. Effectiveness can only be obtained when the right thing is done right. Thus in order to produce an effective EIA in developing countries, the priority issues of the country must be considered, namely, poverty; health; access to water and sanitation; democracy and good governance (United Nations, 2002). Within this context, the consideration of HIV/AIDS impacts is essential in Africa, a continent ravaged by the pandemic.

At the World Summit on Sustainable Development in 2002, the International Association for Impact Assessment (IAIA) submitted a briefing paper on the important contribution impact assessment can make to sustainable development. The paper emphasised the need to make human health and safety an integral part of the impact assessment of policies, plans and projects (Morgan, 2003).

It would thus appear that the assessment of social and health impacts within EIA can only strengthen the process. Kwiatkowski and Ooi (2003, pg 437) are clear that the "integration of social, health and environmental considerations into a holistic impact assessment of projects, programmes and policies would facilitate decision-making in an integrated manner fully consistent with the recommendations made in Agenda 21".

However Vanclay (2004) notes that although EIA was meant to be an all-inclusive framework for consideration of environmental and social issues, in practice it has failed to adequately address the social. Taylor *et al.* (1995) describe some of the problems associated with applying social impact assessment within the broader EIA process. Some of the persistent and troublesome trends that have been raised include identifying who is best qualified to take the lead in a social assessment. There are a number of academic backgrounds that prepare people to undertake social impact assessments, each with its own strengths and weaknesses. A cause for concern is the fact that the scope and focus of the assessment has sometimes been determined by the academic background of those undertaking the job. A second issue is around the focus of the social impact assessment, particularly whether it can be done sufficiently quickly to meet the requirements of the decision makers, and can the results be presented in a way that officials can use. The prioritization of the importance of the impact is a third issue hindering the application of social impact assessment. Three aspects related to this issue are the techniques of projection

used, the problem of quantification and the question of data collection and validity. Other issues such as conceptualization of problems, differing opinions of the process and questions of flexibility versus standardization still plague social impact assessment.

Vanclay (2000) recognizes that a full consideration of social issues and social impacts is very challenging, that participation practices are not easy and are time-consuming and they cannot guarantee satisfactory results. In the face of this, the application of social impact assessment within EIA has not been as widespread as is necessary (Vanclay, 2000) and Burdge and Vanclay (1996) noted an 'anti-social impact assessment mentality' as being prevailing.

### ***3.3.3 Quality in application of EIA in developing countries***

In applying EIA processes in developing countries, Barrow (1997, pg 197) noted that there are significant problems of unfulfilled basic human needs and a high degree of illiteracy which leads to poor public participation in the process. In addition, scarcity of trained personnel to carry out the assessment, lack of baseline data, greater cultural diversity, emphasis on sectoral planning, the fact that the assessment is promoted from the outside thus the local situation is not always understood, short planning horizons and finally cost are obstacles to implementation in developing countries. This list of obstacles affects the ability of practitioners to carry out the EIA process as intended in theory. This has led to growing unease on the success of EIA. Hughes and Dalal-Clayton (1998) note that where resources are scarce, investment lead-times are short and the capacity to manage EIA frameworks are low, there are disappointingly few signs that EIA is being implemented with any degree of success.

Assessment methods and procedures for developing countries have largely been adopted from developed countries with little attempt to adapt them to local situations. As a result, many of the problems of doing EIA in developing countries affect the quality of the assessment conducted. Lee and George (2000) describe the results of Environmental Impact Statement Reviews carried out in Malaysia, India and Tanzania. In all three cases, the majority of reports were deemed borderline or unsatisfactory. In a situation where the ethos of the EIA process is constrained by the practicality of application, aspects such as good public participation and social

impact assessment are often given low priority when carrying out the assessment (Barrow, 1997). As such, these become the first places where cuts are made in trying to streamline the process.

Vanclay (2002) recognizes that for developing countries the improvement of social well-being, with a particular focus on poverty reduction and an emphasis on democratization, should be explicitly recognized as an objective of development projects and plans, and as such should be a performance indicator considered in any form of assessment. Finsterbusch *et al* (1990) suggests that in practice much of the social impact assessment undertaken in developing countries is really a social feasibility study aimed at finding out what might hinder development. This point is illustrated by a post-social impact assessment audit of over 100 US Agency for International Development projects which showed a number of recurrent faults including the fact that the original objectives of a project were seldom achieved; projects are often not adequately maintained and outputs not sustained; the project schedule was frequently revised as deadlines were missed; project outputs were often not used as intended; and design documents had inadequate social analyses (Finsterbusch, 1980). A complete social impact assessment is often not carried out because of constraints of time, budget and lack of skilled social analysts.

These constraints to the application of good EIA practice in developing countries mean that the assessments are often poorly done and the assessment of social and health issues suffer. The practice of EIA therefore falls short of meeting the theory that EIA can be used as a tool to promote sustainable development.

#### **3.3.4 Balance in decision-making between environmental, social and economic effects**

Smith (1993) argues that social, economic, and biophysical aspects of the environment are so interconnected that impact assessment should not treat them separately but should link them. Barrow (1997, pg 226) however states that a 'total impact assessment' is more a goal than reality.

Critics of social impact assessment have claimed that it is imprecise; too theoretical; too descriptive, rather than analytical and explanatory; weak at prediction; ad hoc; mainly applied at the local scale; likely to delay projects, programmes or policies to

which it is applied; and a waste of development resources (Burdge, 2002). Owens *et al* (2004) suggest that the difficulties of technical rationality occur in assessment when the issues at stake are trans-scientific and unstructured which makes it difficult to frame the problem and constructively seek out solutions. The arguments against social impact assessment clearly identify the uncomfortable fit between the softer, subjective assessment and the harder, objective or technocratic ecological modernisation approach to assessment. In the face of a lack of legitimacy for the social impact assessment process, the value of social inputs to decision-makers becomes questionable. The lack of hard, objective "facts" may lead to decision-makers placing less weight on potential social impacts. This has led to a perception of an asocietal mentality or disciplinary prejudice amongst developers, regulatory agencies that social issues are unimportant (Vanclay, 2002). This sense of prejudice has been articulated by community residents through comments such as "Sometimes I think they'd pay more attention to us if we grew antlers" and "[I] would be better off if I was a rare reptile or a dead Roman in the old castle" (Vanclay, 2004, pg 282). In't Veld (cited in Owens *et al*, 2004, pg 1945) recognizes that "policy makers, social groups and researchers still implicitly cherish the classic concept of objective and value-free knowledge." As a result, subjective judgements continue to be regarded with suspicion (Owens *et al*, 2004).

Cernea (1993) calls for a critical re-examination of the 'econocratic and technocratic' models that still inspire - and distort - development interventions in many agencies and government offices. Cernea (1993) argues that institutional austerity is evident through technocratic models where the projects address the technological variables more or less "in-vitro", dis-embedded and dis-embodied from their societal context. He argues for the establishment of a development paradigm that is centred on people both in assessment and in decision-making (Cernea, 1993). Vanclay (2000, pg 132) supports this need for greater value of social inputs in EIA as being essential to the long-term realization of sustainable development. In the absence of a more people-centred development paradigm, social and health issues will continue to fall short in decision-making that favours quantitative, scientific information.

The four factors described above suggest that EIA application has serious flaws that affect its contribution to sustainable development. Many of the problems relate to the integration of social impacts into the assessment and decision-making processes. Lee and George (2000) suggest that strengthening EIA would allow a balanced approach to development which takes into account environmental as well as social

and economic considerations. It would provide practitioners and policy makers with the implications of the potential negative environmental, as well as social impacts of the proposed activity and action required to avoid or mitigate these impacts to acceptable levels. With some improvement, EIA could become a more effective tool in promoting sustainable development.

### ***3.3.5 The limitation of EIA to the project-level***

A final point to consider in the application of EIA is that the tool was developed and will continue to be applied at the project level. EIA was developed as an assessment tool for specific projects and as such the scope and time and spatial horizons of the project are limited by the nature of the development project. The project creates boundaries for an EIA which influence and depth and breadth of the assessment that is carried out.

In the past social and health issues were poorly assessed or completely left out of an EIA where the view was held that these were more strategic concerns outside the sphere of influence of the project. This view is no longer considered acceptable and social and health issues are included in assessments. The assessments may however be weak due to a lack of long term social data and the management recommendations may be constrained by the fact that there are so many external factors influencing the success of any management intervention.

Recognising these limitations, more strategic level tools such as strategic environmental assessment, regional environmental assessment and sustainability assessment have been developed to ensure that environmental considerations are integrated into policies, plans, programmes and strategies. These tools aim to provide a higher level of information which would then feed into project level EIAs. These tools will not replace EIA but rather seek to overcome the limitation of project-level assessment which is carried out in isolation of more strategic environmental concerns. By having both high level and project assessments, a country is assured of a more systematic, far-reaching and sustainable approach to environmental assessment and management.

Whilst this thesis focuses on the integration of HIV/AIDS issues into EIA, it is recognized at the outset that HIV/AIDS issues must also be integrated into policies,

plans, programmes and strategies the same as any other environmental concern for good environmental management to occur.

### **3.4 Conclusion**

EIA originally developed as a process to assess the impacts of development on the ecological environment. With time and the changing development context, the purpose of EIA has shifted to support sustainable development. This expansion of the purpose of EIA has meant that the scope of EIA is no longer limited to the biophysical sphere but must now consider social and economic issues as well. Ensuring effective integration in practice has proven difficult with a number of obstacles to integration. These range from an inherent bias towards a scientific approach in EIA practice, through personal preferences of the EIA team and practical constraints of timing, data availability and scarcity of resources.

The integration of social and health issues into EIA has been most affected by these factors and it is often the social and health components which are substandard in the EIA. These factors have meant that EIA as a tool is less successful at meeting the goal of promoting sustainable development. In addition, decision-making based on potential impacts is also skewed as a result of poor information on the social impacts and the unwillingness of decision-makers to make a decision based on qualitative and complex information.

Within this context, the assessment of HIV/AIDS in the EIA process is questionable. Based on the theory of EIA, the expanded scope of the process makes provision, and in Africa demands, that HIV/AIDS be considered as it is a threat to sustainable development. Theoretically, the application of tools for social and health impact assessment should make the assessment of potential HIV/AIDS impacts fairly straight-forward. However, it is apparent that assessment of HIV/AIDS impacts already faces the obstacle that exist for social and health issues in general. The poor match between the technical rational approach to EIA and the more qualitative needs of social and health impact assessment could mean that the assessment of HIV/AIDS impacts is not easily fitted into traditional EIA practices. In addition, the complexity of HIV/AIDS issues and the uncertainty and lack of data on potential impacts could influence decision-makers to place less weight on these potential

impacts when making a decision on whether a project should go ahead and the conditions of approval.

The magnitude of the impacts of HIV/AIDS in Africa is such that one would assume these issues are taken very seriously in all aspects of development planning. Testing whether concern about potential HIV/AIDS impacts has overridden the persistent problems in the assessment of social and health issues forms the basis of this research.

## 4. HIV/AIDS AND ENVIRONMENTAL ASSESSMENT IN WORLD BANK-FUNDED PROJECTS

### 4.1 Introduction

Whilst EIA is a tool that has rapidly become accepted in assessment of developments internationally, this research focused specifically on how HIV/AIDS is addressed in the EIA process for World Bank-funded development projects. This chapter provides the background to how the World Bank has approached firstly HIV/AIDS issues and secondly, their process followed in conducting EIAs. Whilst the scope of this research has been focused on the World Bank, the trends evident in the World Bank's changing agenda are reflective of the dominant thinking of development agencies and national governments in implementing the EIA process. Within this context, there has been the shift from viewing HIV/AIDS as a health concern to a broader acceptance that it is a development matter and a broadening focus for EIA which encompasses social and health issues. This chapter described the World Bank's evolving EIA process in light of both these trends as well as highlights how these two broadening foci have led to the assessment of HIV/AIDS issues in the EIA process for World Bank-funded development projects.

### 4.2 The World Bank's involvement in the fight against HIV/AIDS

At a global level, the World Bank is one of seven co-sponsors of UNAIDS, whose mission is to lead, strengthen, and support an expanded global response to the HIV/AIDS epidemic (UNAIDS, 2001). At a regional level, the World Bank is a member of the International Partnership Against HIV/AIDS in Africa. *Intensifying Action Against HIV/AIDS in Africa: Responding to a Development Crisis* (World Bank, 2000) is a strategic plan which outlines the World Bank's response to the HIV/AIDS epidemic in Africa. In order to support the implementation of the strategy, a multisectoral AIDS Campaign Team for Africa (ACTAfrica) has been established in the Office of the Regional Vice President, World Bank. The team's mandate includes providing support for HIV/AIDS both within and outside the Bank.

During the financial years 1996-2000, the Bank committed approximately US\$493 million for new HIV/AIDS components and stand-alone projects in 39 countries around the world. In the financial year 2001, the Bank committed US\$501 million for new HIV/AIDS prevention and care efforts in Africa (World Bank, 2001) and an additional US\$500 million in 2002. The funding is being invested in 3 main areas relating to HIV/AIDS and development in Africa.

Firstly, a large proportion of the money will be channeled through the Multi-Country HIV/AIDS Program for Africa (MAP). Most countries in SSA will be eligible for International Development Assistance (IDA) credits through the MAP. Essentially the MAP will provide a streamlined mechanism for countries to access funds to support new and existing HIV/AIDS projects. The emphasis in the MAP will be to expand partnerships at all levels and increase community participation through grant facilities that channel resources directly to communities (Zewdie, 2000).

Secondly, infrastructural sectors such as transport, power and mining are looking at a sector-wide response to the epidemic. The Africa Region Transport sector has led the way in adopting a multisectoral approach to HIV/AIDS. Guidelines have been developed to assist the sector integrate HIV/AIDS issues into all their work. This initiative is particularly important as it raises awareness amongst transport staff of HIV/AIDS issues and facilitates the incorporation of HIV/AIDS into EA of transport projects. In addition, the World Bank's capacity building support to transport ministries in Uganda and Ethiopia has assisted these ministries to integrate HIV/AIDS into their government ministries.

Finally, many staff operating in the Africa region are introducing measures to mitigate the HIV/AIDS impact through their projects. Notably, many of the newer large infrastructural projects have identified HIV/AIDS as an issue through their EA processes and have built HIV/AIDS management components into the projects.

In summary, the Bank is supporting strategic nation-wide HIV/AIDS programmes (e.g. MAP), sector-wide responses (Transport sector initiative) and project-specific initiatives. These three approaches are complimentary and ensure that there is multisectoral and effective coverage of HIV/AIDS (Figure 2).

**Figure 2:** The different levels of World Bank response to HIV/AIDS in Africa

The different initiatives offer opportunities for mutual support especially in implementation and monitoring. As far as possible, there should be co-operation between the different processes to maximize their benefits.

### **4.3 The World Bank's Environmental Impact Assessment Process**

The World Bank's EIA process has been critiqued through this research and this section of the report provides an overview of the World Bank's approach to EIA as well as their official position on the integration of health issues in the process. The World Bank refers more broadly to environmental assessment in their literature although there is a clearly described process for an EIA. This review focuses on the EIA process although the broader terminology is used.

#### 4.3.1 The project cycle for Bank-funded projects

In the World Bank procedure, the environmental assessment process has been built into the project development cycle to ensure that environmental impacts are considered in the project cycle. The World Bank project cycle (Figure 3) begins with a Pre-Feasibility Study and ends with evaluation once the establishment of the project is complete. Project conceptualization begins in discussions between World Bank staff and ministerial staff working in a specific sector e.g. power. A task team leader (TTL) is identified within the Bank to lead the process from the Bank's side. The TTL will identify a number of staff to form the task team for the project. Ideally, an environmental specialist is brought onto the task team at this early stage in an advisory capacity.

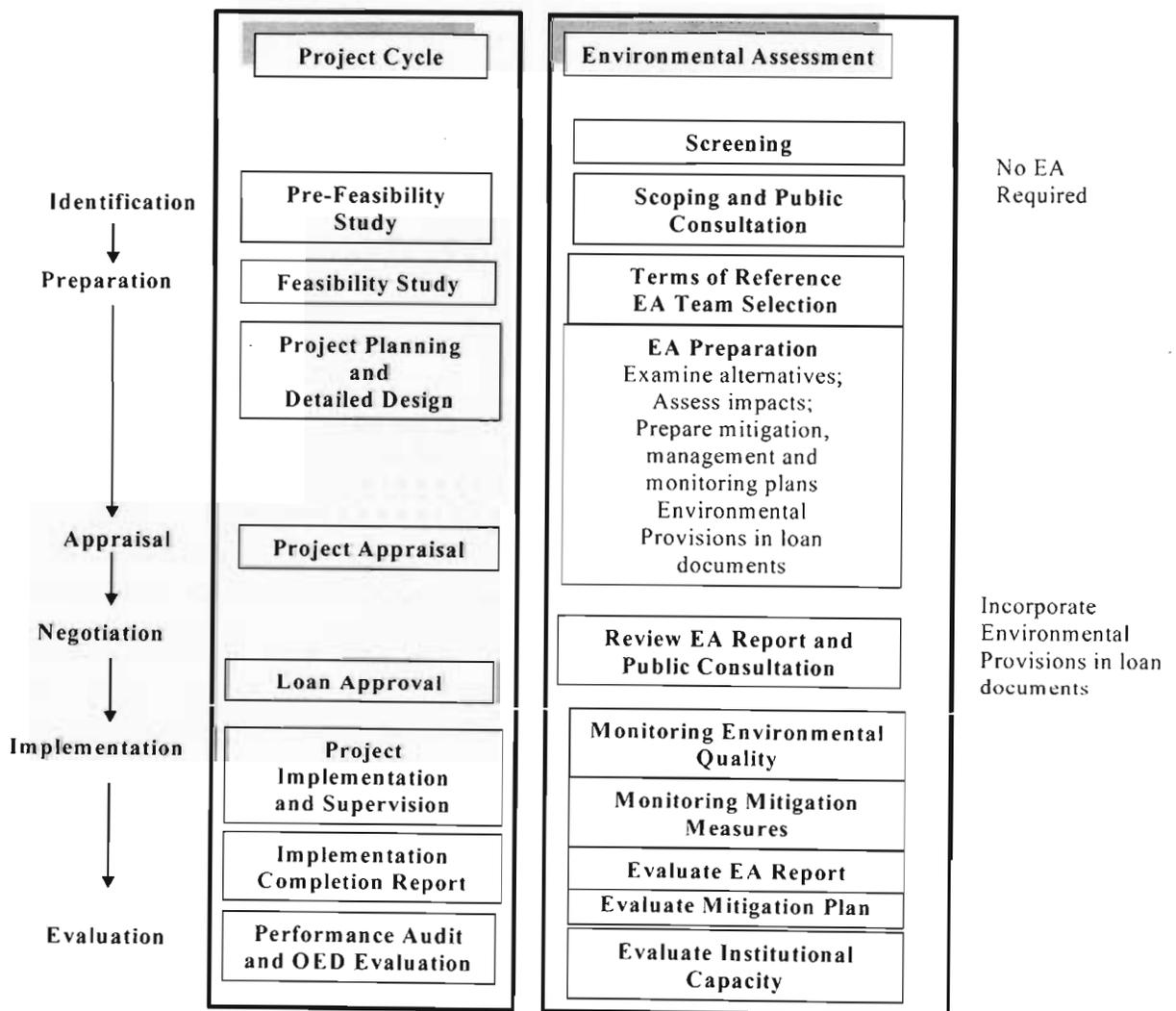


Figure 3: The World Bank Project Cycle (Bingham, 2000)

#### ***4.3.2 Environmental Impact Assessment of Bank-funded development projects***

EIA within the World Bank is laid out in the environmental, social and legal safeguard policies of the Bank (World Bank, 1999). Through these safeguard policies, the borrower needs to demonstrate that (i) each Bank-funded project is analyzed and its likely environmental and social impacts are assessed and (ii) safeguard measures are built into each such project to prevent or mitigate its environmental and social impacts (Goodland and Mercier, 1999). The phases of the EIA process are depicted in Figure 4.

Every project financed by the Bank must go through the EIA process. The World Bank recognize that not all projects will have significant environmental impacts, and the process is thus tailored to allow for varying degrees of assessment. All projects require an early screening and categorization during which the level of impact is determined. Within the Africa region of the Bank, the ASPEN group provides task teams with expert advice on potential environmental impacts.

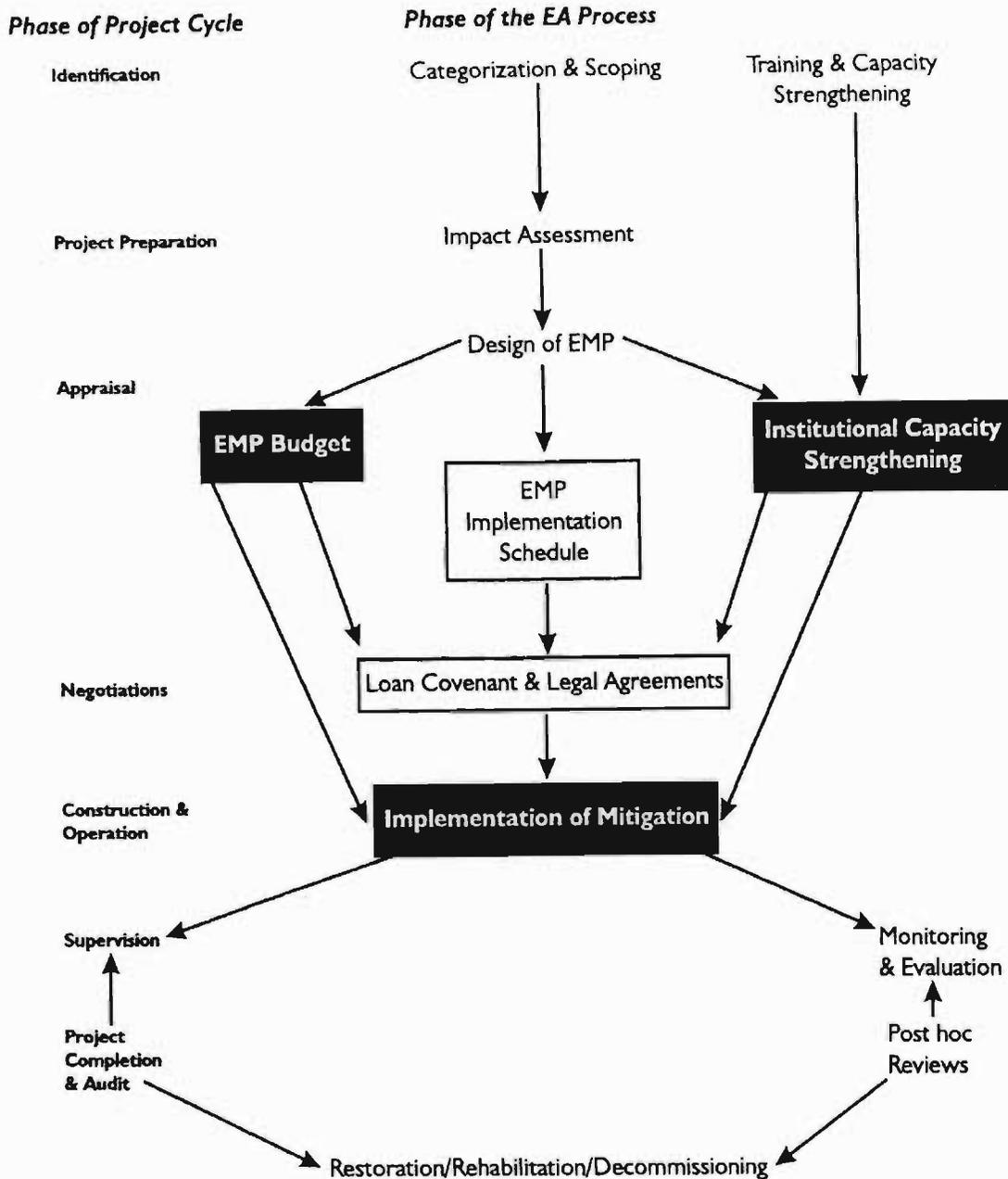


Figure 4 **Schematic of the World Bank EA Process** (from Goodland and Mercier, 1999)

At the categorization stage, all World Bank projects are assigned to one of 4 categories according to the principles shown in Table 4 below. Based on this categorization, the appropriate level of assessment is carried out. Some projects undergo a full EIA, others may go straight to an EMP, and the final group may not have any further environmental inputs, beyond screening and categorization.

**Table 4:** Basic principles of project categorisation

<b>Category</b>	<b>Project Features</b>	<b>Procedures</b>
<b>A</b>	Likely to have significant adverse impacts that are irreversible, diverse, broad, or precedent setting. These impacts generally result from a major component of the project and affect the area as a whole or an entire sector.	Requires a full environmental assessment
<b>B</b>	Potential environmental impacts are site-specific in nature and do not significantly affect human populations or alter environmentally important areas, such as mangrove swamps, wetlands, or other major natural habitats. Few, if any, of the impacts are irreversible, and project designers can easily incorporate mitigation measures.	Requires an environmental analysis restricted to the particular environmental issues associated with the project
<b>C</b>	Unlikely to have any adverse environmental impacts or impacts are likely to be negligible, insignificant, or minimal.	Requires no EA
<b>FI</b>	Involved investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts	An Environmental Analysis should be conducted. Its basic aim is to (i) assess the national EA rules and requirements (ii) assess the existing capacity within the implementing agency to screen sub-projects and review the EAs done on the most sensitive sub-projects and (iii) recommend an EMP to put in place the mechanism and capacity to screen and review
<b>Emergency Recovery Projects</b>	Emergency recovery (O.P. 8.50)	No EA is required prior to Board, but projects that would have been categorized A or B need an EA, which should be conducted as soon as possible after Board

### 4.3.3 The World Bank's approach to social and health issues in EIA

The environment is defined by the World Bank as (a) public and occupational health, (b) the naturally occurring environment, and (c) the "social" dimension (Goodland, 2000). Within this definition, health and social considerations have been included in the environment from the earliest days. EIA at the World Bank has also followed international trends and has evolved over time to take cognizance of new development concerns. Social assessment has been included in EIA with the purpose of firstly preventing impoverishment and secondly, improving livelihoods and alleviating poverty. Specific social impacts such as involuntary resettlement have gained prominence in World Bank projects and as a result, a safeguard policy has been developed to deal with the impacts associated with resettlement.

At a broad level, the differentiation between environmental and social assessment within the World Bank are defined in table 5.

**Table 5:** Topics focused on in environmental and social assessment (Goodland, 2000)

<b>Environmental Assessment</b>	<b>Social Assessment</b>
<i>Biophysical Impacts:</i>	<i>Human &amp; Social Impacts:</i>
<i>Maintenance of Natural Capital</i>	<i>Maintenance of Human and Social Capital</i>
Pollution of air	Involuntary resettlement
Pollution of water	Vulnerable ethnic minorities
Noise pollution	Indigenous populations
Extinction of species; Biodiversity	Vulnerable social groups in general
Human Health/Communicable and degenerative diseases/epidemiology	Participation
Greenhouse Gas; Climate change	Community cohesion; stakeholder analysis; equity
Deforestation	Violence
Habitat Loss	Culture, cultural property, cultural heritage
Desertification	Slavery; debt peonage; child labour; prison labour
	Poverty alleviation
	Land tenure
	Open access resources; common property

Both environmental and social assessments contain elements that relate to health although environmental assessment does so more explicitly. Health assessment has not gained the prominence of social assessment in the World Bank but there has been recognition of the significance of health issues through an Environmental Assessment Sourcebook Update on "Health Aspects of Environmental Assessment" in 1997 (Birley, 1997). The update recognizes that projects funded by the World Bank must have significant direct, indirect and cumulative impacts on the environment, the community and human health. It is further accepted that some projects affect health positively and other negatively. It is also recognized that "the socio-cultural impacts of large construction projects have been noted, but their association with increased risk of contracting diseases, for example human immunodeficiency virus (HIV) and other sexually transmitted diseases (STDs), has not been made (Birley, 1997, p1). A recommendation is made in the update that health and safety concerns can be integrated into EA by:

1. Introducing the relationship between the environment and health hazards, health risks, and health impacts
2. Screening development proposals for hazards to human health and safety
3. Assessing and quantifying the risks to human health and safety of hazards identified with, or resulting from, projects
4. Developing health risk management proposals as part of the overall environmental management plan (EMP)
5. Ensuring the implementation of health risk management measures during project implementation and beyond (Birley, 1997).

The implementation of EIA within the World Bank has followed international trends with the process being regulated through an operational policy of the World Bank. All development projects are subject to the World Bank safeguard policies which assess environmental and social impacts of the projects. Social issues including health have become increasingly relevant to the impact assessment of projects. A great deal of supporting material has been developed to ensure the effective assessment of social and health issues in EIA but as with international practice, it is not clear in the literature how successful the application has been.

#### **4.4 Addressing HIV/AIDS impacts of World Bank-funded projects through the EIA process**

In the light of the HIV/AIDS development crisis, the World Bank made a commitment to play a stronger role in the effort against the disease (World Bank, 1999). One of the key elements of the Africa region's strategy is to strengthen the Bank's own capacity to respond to increased demand for HIV/AIDS management, including assessing the impacts of projects on HIV transmission and HIV/AIDS opportunities for HIV/AIDS management (the project level response). In order to understand the most appropriate means of building the assessment of HIV/AIDS impacts into projects, the World Bank commissioned a feasibility study into the potential for integrating HIV/AIDS impact assessment into EIA in World Bank-funded activities in Sub-Saharan Africa. The CSIR was awarded a research contract by the World Bank to carry out this investigation. The researcher was contracted as a consultant by the World Bank to undertake this study in her capacity as a CSIR employee. The terms of reference for the study was to assess the feasibility of integrating HIV/AIDS issues into the environmental assessment process for development projects in Sub-Saharan Africa. The involvement of the World Bank enabled the researcher to collect data on projects in three African countries, Ethiopia, Tanzania and Uganda and interview top level officials and experts on EIA and HIV/AIDS in the United States, Ethiopia and Uganda. The data collected through the World Bank investigation was used as the basis for this dissertation.

#### **4.5 Conclusion**

The researcher's contract with the World Bank to carry out a feasibility study on integrating HIV/AIDS issues into the EIA process provided an opportunity to undertake the primary data collection required for this dissertation. The research thus focuses on the EIA process as it is carried out for World Bank-funded development projects in Africa.

This context provides clear boundaries for the study in that the focus is clearly on EIA as it is described in the World Bank safeguard policies. In addition, the approach to addressing HIV/AIDS in development projects is reflective of the expanding approach of the World Bank to addressing HIV/AIDS issues. In both the definition of the EIA process and the manner in which HIV/AIDS is addressed, the World Bank experience

is representative of international trends. Firstly, the World Bank's EIA process has expanded over time to include safeguards on social issues such as resettlement and secondly, HIV/AIDS has shifted from the domain of the health sector to gradually being mainstreamed in all the Bank's activities in Africa.

These two merging trends have naturally intersected so that the opportunity arose to carry out an investigation into how the HIV/AIDS impacts are assessed in the EIA process. The researcher's role as the principal investigator of the World Bank study provided a vehicle to undertake the primary data collection required for this dissertation.

## 5. METHODOLOGY

### 5.1 Introduction

The aim of this chapter is to provide a detailed description of the research methods applied in this thesis to meet the stated objectives of the research. Owens *et al* (2004, pg 1953) in considering how the EIA process has evolved asks the question: "when appraisal practices become more open, deliberative and participatory, allowing for full acknowledgement of uncertainty and different framings, can policies still be formulated and decisions made, and do they differ from those that might have emerged from the 'old' approaches?" These questions can be applied in the context of addressing HIV/AIDS issues in the EIA appraisal. From the theory, it is clear that a broader approach to appraisal or assessment is required which takes into consideration social and health issues and allows for a more participatory approach to the process. In support of this approach, framing EIA within the context of justice is suggested as a mechanism to make the process more inclusive of social and health concerns. This research seeks to test the theory of mainstream environmental management discourse against the perceptions of people working in the field and through investigating the manner in which EIA practice has considered HIV/AIDS impacts of development. The research goes further to explore whether decisions surrounding the EIA outputs and the design of development projects is different in situations where more "open, deliberative and participatory" EIA practices are applied under "different framings" (Owens *et al*, 2004, pg. 1953).

Owens *et al* (2004, pg 1953) go on to suggest that "it would seem that these important questions can be answered only through patient empirical work in well-defined contexts, involving observation, documentary analysis, and in-depth interviews with those involved in the process over time". Guided by this thinking, mainly qualitative research methods were applied to the research as it was felt that quantitative methodologies would not be as appropriate in uncovering the philosophical underpinnings of EIA practice. The research methodologies focused on understanding people's perceptions and understanding of the scope of EIA and their openness to addressing HIV/AIDS, a sensitive social issue, through the process. A range of data sources and data collection methodologies were applied in the research including extensive in-depth interviews, site visits, review of EIA

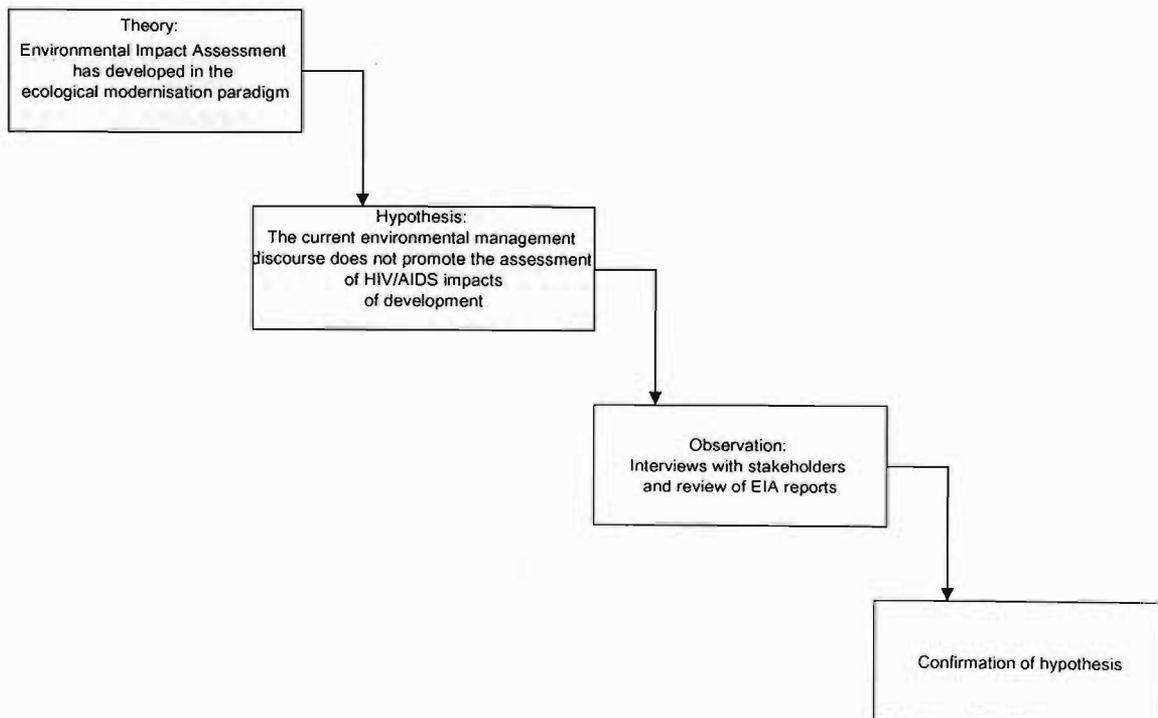
documents and focus group discussions (Flowerdew and Martin, 1997). These are described in more detail below.

## 5.2 Organisation of the research

The research has been organized into two broad groups. At a broad level, the research sought to understand the current environmental management discourse and how this has influence the assessment of HIV/AIDS in the EIA process. This component of the research has been described in terms of the two objectives:

- To describe the mainstream environmental management discourse and its influence on World Bank funded development projects in Africa
- To analyse how the current environmental management policy framework and practice considers the HIV/AIDS impacts of development.

Deductive reasoning is used to test the hypothesis that the EIA process is weak in addressing HIV/AIDS issues (Figure 5).



**Figure 5:** A deductive approach to analyzing how EIA policy and practice address HIV/AIDS impacts of development

In line with this approach, a theoretical review was carried out to understand the main discourses that have framed the development of EIA theory and which influence EIA practice internationally. It has been established in the literature that EIA reflects the thinking of the ecological modernisation paradigm (Oelofse *et al*, 2006) and detailed work by authors such as Frank Vanclay and Rabel Burdge have shown that a result of the positivistic, technocratic approach, in most circumstances, the EIA process falls short in addressing social and health issues. A body of theory thus exists to support the hypothesis that the dominant environmental management discourse does not promote the assessment of HIV/AIDS impact of development. A deductive approach is thus appropriate to test this theory and hypothesis through observation and the collection of empirical evidence. Empirical evidence was collected through observation of development projects, EIA reports and most importantly, through a series of interviews with key stakeholders who influence the EIA process for World Bank-funded projects in Africa.

The second component of the research sought to consider whether EIA should in fact be addressing HIV/AIDS impacts and if so, to put forward a hypothesis of how the EIA process could be re-framed to take better account of HIV/AIDS impacts. This component is articulated in the research objectives:

- To assess whether there is a need for environmental impact assessment to consider HIV/AIDS impacts
- To propose means to adapt the current environmental assessment and management tools to better consider HIV/AIDS issues

A more inductive approach was used to learn from case studies of actual development projects in Africa in order to draw out patterns that could be used to develop a framework of re-framing EIA practice (Figure 6).

Through the initial literature review for the project it became clear that there is no clear methodology or even tools that explicitly support the assessment of HIV/AIDS impacts through the EIA process. A great deal of work has been carried out on developing tools for social and health impact assessment and to some extent, these have been incorporated in the EIA process. There are also a range of tools being used to prevent and manage the HIV/AIDS pandemic but rarely have these tools been used in the context of assessing the impact of development projects on

HIV/AIDS. Where the tools are used in the EIA process, this tends to be on an ad-hoc basis and little of the work has been documented in the literature. As there is no

**Figure 6:** An inductive approach to developing a framework for addressing HIV/AIDS impacts in the EIA process

guidance for assessing HIV/AIDS impacts in the EIA process, the inductive approach was used to learn from what is taking place in projects and drawing conclusions to develop a framework for integrating HIV/AIDS concerns into the EIA process. This component of the research required detailed review of EIA reports, analysis of tools for assessing, preventing and managing HIV/AIDS impacts that are currently used in the health sector and most importantly, analysis of three selected case studies of World Bank-funded development projects that are currently underway in Africa. Once a tentative hypothesis was developed, this was tested through a workshop with stakeholders from southern and eastern Africa.

### 5.3 Data Sources

Both primary and secondary data sources were used in the research. These were obtained from a number of different sources and in some cases included confidential project documentation. The project required a broad approach to identify issues

common across Sub-Saharan Africa. Due to the time and budget constraints of the project, a purposive sampling approach was applied. Purposive sampling is a method where the selection of sample members is dependent on human judgement, in this case, the judgement of the researcher (Parfitt, 1997). The aim of the purposive sampling approach was not to choose a representative sample but rather to select an illustrative one (Valentine, 1997).

Through the support of the World Bank and the CSIR, the researcher was able to collect primary data from three sources, namely, interviews with key stakeholders and experts, investigations of World Bank-funded development projects in Africa and a stakeholder workshop. The primary data sources were supported by secondary data mainly from literature reviews and EIA reports commissioned for World Bank-funded development projects in Africa.

### **5.3.1 Key Stakeholder Interviews**

The main source of primary data for the research came from interviews. The interviews provided an opportunity to obtain views and personal experiences from individuals on the purpose and practice of EIA and the relationship with HIV/AIDS. The interviews also provided valuable inputs on the obstacles to assessing HIV/AIDS in EIA and recommendations on what is required to improve this assessment. The interviews were carried out with key stakeholders from the World Bank and environmental assessment, health and development experts and decision-makers in government, development agencies and the NGO sector. Interviews were carried out with stakeholders in three countries, namely, the United States of America (USA), Ethiopia and Uganda.

The interviews in the USA were focused on World Bank staff working at the World Bank headquarters in Washington D.C. Staff who worked in Africa on environmental assessment, HIV/AIDS or leading infrastructure task teams were approached by the World Bank contact, Jean-Roger Mercier to meet with the researcher via email. The researcher initially requested to interview all the World Bank staff in the Africa region that were responsible for overseeing the implementation of the EIA safeguard policies. However, many staff were on missions out of the country and only four interviews were carried out with the environment team (Table 6). Two specialists in HIV/AIDS interventions were interviewed to understand how the World Bank

approached HIV/AIDS impacts associated with development and four specialists responsible for implementing development projects were interviewed. The four specialists responsible for development projects provided a perspective from people who are not directly responsible for environmental or HIV/AIDS matters and but were responsible for ensuring that projects were approved and implemented in countries.

In addition to getting information from World Bank staff in Washington, it was necessary to obtain inputs from other stakeholders involved in the EIA process. To this end, it was decided that two countries would be selected where interviews could be carried out with World Bank staff, government officials and other interested and affected parties involved in development projects. Ethiopia and Uganda were selected as the two country studies. The choice of countries in Sub-Saharan Africa was limited to politically stable countries, had legislated EIA systems, anglophone Africa due to the potential language problems in francophone Africa and countries where the World Bank was making a significant investment in development projects. The selection of countries was narrowed down to Ethiopia and Uganda because Ethiopia had recently introduced a MAP programme in addition to having a long term relationship with the World Bank in terms of investments, and Uganda because of the success the country has experienced in reducing HIV/AIDS prevalence in the national population. In each country, interviews were held with key stakeholders.

The World Bank Country Representatives were instrumental in setting up interviews for the researcher. Prior to the visits to the countries, the researcher contacted the Country Representative introducing the research and requesting assistance in setting up interviews (Appendix 2). The interviews were focused on three main groups of people, namely, the managers of large development projects, specialists in EIA or HIV/AIDS, and people affected by development projects. Managers of large development projects from the World Bank and other development agencies were interviewed to understand how they perceived HIV/AIDS issues and its link with the EIA process and to learn how they were dealing with HIV/AIDS impacts of development, if at all. Interviews with specialists and government officials responsible for EIA and HIV/AIDS were important as these people were the decision makers who were directing EIA and HIV/AIDS approaches in their countries and making decisions regarding approval of projects. A limited number of people affected by development projects were interviewed and these included NGOs responsible for implementing HIV/AIDS interventions for projects as well as people directly affected

**Table 6:** Respondents interviewed at the World Bank headquarters in Washington

<b>Interviewee</b>	<b>Bank Group</b>	<b>Title</b>	<b>Date Interviewed</b>
<b>Environmental Assessment</b>			
Jean-Roger Mercier	Africa Environment Department	Principal Environmental Specialist (Africa Region) - World Bank Project Manager	22-26:05:2000
Nina Chee	Africa Environment Department	Environmental Analyst - Environmental analyst on task teams for transport sector	24:05:2000
Serigne Omar Fye	Africa Environment Department	Senior Environmental Specialist - Involved in EA review in PEAR	23:05:2000
Nathalie Johnson	Africa Environment Department	Environmental Specialist - Environmental management capacity building in Uganda	24:05:2000
<b>HIV/AIDS</b>			
Bachir Souhail	AIDS Campaign Team Africa	Principal Community Development Specialist (ACTafrica) - Liaison person in ACTafrica	23:05:2000
Shimwaayi Muntemba	Africa Infrastructure Team	Senior Social Policy & Public Participation Specialist - Involved in the retrofitting HIV/AIDS programmes to development projects in Guinea & Liberia	25:05:2000
<b>Infrastructure</b>			
Denise Vaudaine	African Urban Development	Municipal Finance Specialist - Provides municipal management support for urban projects in Africa	23:05:2000
John Roome	Africa Knowledge Services	Director: Operational Quality and Knowledge Services (Africa Region)	24:05:2000
Andreas Schliessler	Africa Transport Department	Transport Specialist - Involved in road provision. Task manager for the Chad Road Project	25:05:2000
Susanne Holste	Africa Transport Department	Transport Specialist - Involved in transport project preparation	25:05:2000

by projects. The latter group was interviewed during the case studies of development projects.

A purposive approach was also applied to selecting interview candidates. Within these countries, individuals were selected for interviews from all the major donor agencies funding large development projects, the environmental and health national government departments and national or international bodies which had a role to play in HIV/AIDS or environmental issues in the country such as the World Health Organisation and the Christian Relief and Development Association in Ethiopia. In all the organizations, attempts were made to interview the highest level official involved directly in EIA, HIV/AIDS or specific large development projects.

Following an introductory letter from the World Bank Country Representative, the researcher contacted all potential interviewees on arrival in the country to confirm appointments. Parfitt (1997) identified an additional benefit of the covering letter of securing the trust of the potential respondent by explaining upfront what you are doing and why. Due to the unpredictable schedules of some of the interviewees, some of the interviews were cancelled and others were rescheduled with a less senior official. A targeted sampling method was used. The approach followed was to speak to as many senior staff as possible but where offers were made to interview other people, this was accepted as it was felt that more data would add value to the research. In some cases, an interview with the head of a department would lead to further interviews with other staff in the department at the suggestion of the head.

In Ethiopia, where the first set of country interviews were carried out, three interviews were held with World Bank staff, five interviews with government officials, two interviews with NGOs and 11 interviews with other development agencies (Table 7). The interviews in Ethiopia were scheduled over a period of one week that the researcher spent in Addis Ababa (06 – 10 November 2000). A valuable lesson was learnt regarding the difficulties experienced in scheduling interviews with busy individuals and as a result, the interviews in Uganda were scheduled over a two week period from 29 January to 09 February 2001. As a result, it was possible to interview more people in Uganda and this included five World Bank staff, 15 government officials and 11 representatives from development agencies (Table 8).

Table 7: Respondents interviewed in Ethiopia

Interview	Interviewee	Organisation	Title	Date Interviewed
<b>World Bank</b>				
1	Surjit Singh	World Bank	Lead Operational Specialist – Ethiopia	06:11:2000
2	Antoine Lema	World Bank	SIA and resettlement specialist - Africa region	06:11:2000
3	Gebreselassie Okubagzhi	World Bank	Senior Health Specialist	07:11:2000
<b>Government</b>				
4	Dagnachew Haile Mariam	National HIV/AIDS Council	Secretariat of the National HIV/AIDS Council	06:11:2000
5	Tewolde Egziabher	Environmental Protection Agency	General Manager	08:11:2000
6	Mr Gebreselassie	Environmental Protection Agency		09:11:2000
	Mrs Tsedale	Environmental Protection Agency		
	Mr Solomon	Environmental Protection Agency	Head of the EIA Section	
<b>Civil Society</b>				
7	Agonafer Tekalegne	Christian Relief & Development Association	Head Planning and monitoring Service	07:11:2000
8	Girma Degeffe	DKT	Project Director	07:11:2000
<b>Donor Agencies</b>				
9	Claire Mulanga	UN Economic Commission for Africa	ADF 2000 Co-ordinator	09:11:2000
10	Connie Osborne	UNAIDS	Country Program Advisor	09:11:2000
	Emebet Azomussu	UNAIDS	National Program Officer	
11	Amsale Yilma	Ministry of Health	Project Manager	09:11:2000
12	Gladson Kayira	United Nations Development Programme	Senior Field Specialist	10:11:2000
	Alex Unsgaard	United Nations Development Programme	Economist	
	Nina Strom	United Nations Food Programme for Africa	Social Specialist	
13	David Tommy	United Nations Industrial Development Organisation	UNIDO Representative Ethiopia, Burundi, Rwanda and to the OAU and UNECA	10:11:2000
14	Wim Olthof	European Union	Economic Adviser	10:11:2000
	Morten Moller	European Union	Economic Attache	
15	Hana Tebeb	United States Agency for International Development	PPHC Activity Manager	10:11:2000

**Table 8:** Respondents interviewed in Uganda

Interview	Interviewee	Organisation	Title	Date Interviewed
<b>World Bank</b>				
1	Norbet Mugwagwa	World Bank	Country Operations Manager	31:01:2001
2	John Oloya	World Bank	Rural Development Specialist	31:01:2001
3	Peter Okwero	World Bank	Health Specialist	31:01:2001
4	Victorio Ocaya	World Bank	Transport Sector	29:01:2001
5	Mary Bitekerezo Kasozi	World Bank	Social Development Specialist	30:01:2001
<b>Government</b>				
6	Sylvester Sempala	Ugandan Virus Research Institute	Director	29:01:2001
7	David Kihumuro-Apuuli	Uganda AIDS Commission	Director General	30:01:2001
8	Alfred Okema	Uganda AIDS Commission	Senior Economist	30:01:2001
	John Rwomushana	Uganda AIDS Commission	Coordinator - Health and Research	
9	John Okedi	National Environmental Management Authority	Executive Director	31:01:2001
10	Patrick Kamanda	National Environmental Management Authority	Environmental Inspector	31:01:2001
	Justin Ecaat	National Environmental Management Authority	EIA Specialist	
11	Kiirya Ssesse	LVEMP National Secretariat	Community Participation Officer	09:02:2001
12	Peter Ssebanakitta	Ministry of Works, Housing & Communications	Commissioner (Roads)	07:02:2001
13	Jeremy Aguma	Ministry of Works, Housing & Communications	HIV/AIDS Task Leader	07:02:2001
14	Francis Omaswa	Ministry of Health	Director-General: Health Services	09:02:2001

Interview	Interviewee	Organisation	Title	Date Interviewed
15	Alex Opio	Ministry of Health		09:02:2001
16	Ogutu-Ohwayo Richard	National Agricultural Research Organization (NARO)	Director – Fisheries Resources Research Institute	09:02:2001
17	Konstantine Odongkara	NARO Fisheries Research Institute	Task Leader Socio- Economics sub- component lake Victoria Environmental Management Project	
18	Mr Wairama	Ministry of Works, Housing and Communications	Roads Officer	09:02:2001
<b>Donor Agencies</b>				
19	Elise Ayers	United States Agency for International Development	Lead Operational Specialist – Ethiopia	29:01:2001
	Anne Fleuret	United States Agency for International Development	Performance Monitoring Specialist	
20	Oladapo Walker	World Health Organisation	Country Resident Representative	30:01:2001
	Collins Mwesigye	World Health Organisation	Community Water and Sanitation Advisor	
21	Ros Cooper	Department for International Development	Health Advisor	06:02:2001
22	James Thornberry	Department for International Development	Assistant Health & Population Field Manager	06:02:2001
23	Justina Stroh	DANIDA	Programme Officer	06:02:2001
24	Forough Olinga	Food and Agricultural Organisation (FAO)	IP National Facilitator	07:02:2001
25	Flavia Mpanga	Ireland Aid	Health Advisor	09:02:2001
26	Dan Temu	United Nations Development Programme	Deputy Resident Representative	09:02:2001
	Sam Ibanda	United Nations Development Programme	Assistant Resident Representative	

The primary data collection techniques applied in the research sought to interpret people's perceptions and understanding of HIV/AIDS issues in the context of EIA. This philosophical approach has been described by Flowerdew and Martin (1997) as forming part of the hermeneutical or interpretative movement in philosophy. Hermeneutics refers to the study of interpretation and understanding (Flowerdew and Martin, 1997, pg 16). This approach was applied as the research focused on understanding how people viewed the EIA process and their willingness to consider 'softer' social issues through the EIA process. The perception of different stakeholders as to whether HIV/AIDS should be considered as a development issue, and thus be addressed in the EIA process, was also explored.

In order to obtain a richness of data from the interviewees, in-depth interviews were carried out with individuals. Preparation for the interviews was carried out by defining upfront the key issues that needed to be addressed in the interview and ensuring that the researcher was well-versed both in the topic and in the work of the interviewees. All interviewees were prepared for the interviews by being provided with an explanatory note to the project and a letter of introduction from the World Bank. The interviews took the form of open-ended questions in a semi-structured approach with opportunities to direct the discussion as the interview evolved. A list of open-ended questions was prepared and these were used by the researcher to guide the discussion (Appendix 3). In some cases, all the questions were asked but in many cases, the researcher encouraged the respondents to share their views and experiences and allowed the discussion to develop according to the responses given. This approach is considered acceptable where the researcher wants to understand the issues in the interviewees own terms (Valentine, 1997). The advantages of this approach is that it is "sensitive and people-orientated, allowing interviewees to construct their own accounts of their experiences" (Valentine, 1997, pg 111). One of the additional strengths of the approach was that it allowed respondents to raise issues that the researcher may not have anticipated (Silverman, 1993, cited in Flowerdew and Martin, 1997). This was particularly important as the researcher was seeking to gain insights to assist in the development of a framework for integrating HIV/AIDS issues into EIA as well as understanding perceptions of the process itself. In order to ensure that the interview did not shift from the research topic, the researcher intervened as appropriate and introduced key questions. A limitation of unstructured interviews is that they are not amenable to formal statistical analysis. However this method was employed as it is considered a valuable technique to gain the greatest insights into certain research topics (Parfitt, 1997).

The interviews were between one to two hours in length. In some cases, the interviews took place on a one-to-one basis but in other cases, focus group discussions were favoured by the respondents in the interests of saving time. Robinson (1988) recognised that focus groups or group interviews are a common means of carrying out in-depth interviews. In this situation all the groups were part of a pre-existing organisation as they worked together and the focus groups were not artificially created. An autocratic approach was taken to the interviews where the researcher led and directed the discussion (Robinson, 1998). In all cases, the researcher took detailed notes from the interview in order to collect data. These notes were collated and used in the data analysis phase of the research as well as in the preparation of summaries of the main outputs from each country visit.

### **5.3.2 Case Studies of World Bank-funded projects**

A further source of primary data came from World Bank-funded development projects. The purpose of the case studies was to provide a level of ground-truthing to the data that was provided from secondary sources through documents and the inputs from interview respondents. In terms of the research, it was important to study projects to obtain empirical evidence of how development projects were impacting on HIV/AIDS and to compare the assessment of potential HIV/AIDS impacts presented in the EIA report with the actual impacts being experienced by workers and communities.

Three case studies were selected of development projects where the World Bank had provided some funding. The projects were selected from three different sectors (roads, power and environment) and three different countries. The projects were also in different stages of their development. The first project, the Lake Victoria Environmental Project was in the implementation phase and was well organized with an established secretariat. The second project, the Ethiopia Road Sector Development Project II was in the initial implementation phase and the third project, the Lower Kihansi Hydropower Project had a completed assessment and initiated an HIV/AIDS programme in response to the Management Plan and had already obtained data on the success of the initiative. The first two projects were drawn from the countries where interviews were carried out for logistical reasons. The Lower Kihansi Hydropower Project was an exception but was included as it was one of the

first World Bank development projects to have a significant HIV/AIDS component attached to an infrastructure development.

In all three cases, the researcher investigated firstly, if the project was having an impact on HIV/AIDS, secondly if and how HIV/AIDS issues had been incorporated into the EIA and project plan and finally to consider whether the project would have benefited if a framework had been available to better address HIV/AIDS issues in EIA. In the case of the Lower Kihansi Hydropower Project, this project was considered to have had successful application of HIV/AIDS assessment and management through the EIA process and was used as an example of good practice by the researcher.

The researcher obtained information on projects through reviewing all the available project documents including the Project Information Documents, EIA reports and Project Appraisal document, visiting project sites and interviewing people working on the project and living around the project site. These reports, and supporting documentation, were interrogated to understand how the EIA process was applied and specifically how HIV/AIDS issues were addressed, if at all.

Following the review of documentation, the researcher made site visits to investigate what was happening with the projects. The main themes investigated through the site visits included the vulnerability of the host community; the risk situations created through the project; the nature and extent of HIV/AIDS awareness, prevention and management interventions; and collaboration between the development implementers, government and NGOs in HIV/AIDS interventions. In the case of the Lake Victoria Environmental Management Project and the Lower Kihansi Hydropower Project, the site visits were supported by interviews with the project implementation teams. By visiting the project sites the researcher was able to compare the project documentation with the reality. Observation was applied to obtain primary data on the implementation of development projects. It is particularly important to note that the observation was made from the perspective of an outsider to the community and as there was a particular purpose to the visit, this influenced what was seen and where the researcher was taken.

Observation was carried out in order to assess the dynamics of communities and development workers around a project, to investigate the HIV/AIDS management interventions that were being implemented through the development project and to

assess the capacity of project teams to address HIV/AIDS issues. The observations took place as once off visits to the sites and thus a lot of the observations had to be interpreted. It must be noted that one of the limitations of the observational technique is that nothing is learnt about the reasons for the behaviour observed (Parfitt, 1997). An attempt was made to understand the situation through questioning people on the activities that were being carried out.

### **5.3.3 Workshop with southern and eastern African delegates**

Due to time constraints it was not possible to apply the framework to a new development and thus test the proposed hypothesis properly. Once the empirical data from the interviews and case studies was analysed and a framework developed, a regional consultation workshop was convened by the researcher to bring stakeholders from the south and east African region together to test the response to the proposed framework for addressing HIV/AIDS through EIA. The workshop was considered an alternative method to pre-test the framework with experienced EIA practitioners who work in Africa. Inputs from practitioners working in the field were considered important to testing the practicality and applicability of the framework to an African context.

Fifteen delegates from 11 countries in the eastern and southern African region participated in a four day workshop on integrating HIV/AIDS issues into EIA (Appendix 4). The participants were representatives from government departments responsible for environmental assessment (11) and HIV/AIDS (4) management (Table 9). The workshop was funded by the World Bank but hosted and facilitated by the researcher and colleagues at the CSIR. The workshop began with a 2-day training session to introduce participants to HIV/AIDS and EIA and the framework for integration. This was followed by a group work session applying the framework to case studies and finally, working groups focused on addressing potential obstacles to implementing the framework.

The objectives of the workshop were to:

- Introduce participants to a framework and tools for addressing HIV/AIDS issues in the EA process.
- Test the appropriateness of the framework for application in the region.
- Discuss opportunities and requirements for introducing HIV/AIDS into environmental assessment practices in the region.

In order to ensure that everyone had a common understanding to begin discussions, three training modules were presented on basic material covering an introduction to the HIV/AIDS epidemic, its impacts on development and the EIA process. This was followed by a day-session in which the framework for integrating HIV/AIDS issues into EIA was presented to the participants. The training sessions were run as modules with presentations by trainers and open discussions with all the participants. Two specialists, Rob Hounsome and Mark Colvin were invited to present on environmental assessment and HIV/AIDS respectively. The researcher was responsible for presenting the framework that was developed for reframing EIA practice to improve the assessment of HIV/AIDS impacts and for overall facilitation of the workshop.

Through the workshop, the researcher was able to gain insights into different views on EIA and HIV/AIDS and valuable criticism to improve the framework. The researcher, supported by an assistant, Ms Leonie Subramoney, took notes throughout the workshop. Throughout the workshop, the researcher as facilitator made notes on flipcharts documenting the main points from the discussion. Workshop participants also prepared written notes and presentations on flipcharts in sharing their inputs. All this material was used by the researcher as primary data for this study and the main points summarised into a Workshop Proceedings Report.

#### **5.3.4 Secondary data sources**

Secondary data provided necessary information to develop an understanding of the theoretical frameworks which underpin EIA as well as the dynamics of HIV/AIDS and development progress. Flowerdew and Martin (1997, pg 57) describe secondary data as "information which has already been collected by someone else and which is available to inspect".

**Table 9:** Participants of the investigative workshop

	<b>NAME</b>	<b>ORGANIZATION</b>	<b>COUNTRY</b>
1	Abdulrahman Issa	International Union for the Conservation of Nature (IUCN) – EARO	Kenya
2	Alexander Chambi	Institute for Resource Assessment	Tanzania
3	Anna T Maembe	National Environmental Management Council	Tanzania
4	Arne Dalfelt	World Bank	USA
5	Bernice Puling	National Environment Secretariat	Lesotho
6	Emmanuel Baingana	Uganda AIDS Commission	Uganda
7	Emmanuel Kasimbazi	Faculty of Law, Makerere University	Uganda
8	Jackie Nzisabira	United Nations Development Programme	South Africa
9	Jameson D Vilakati	Swaziland Environment Authority	Swaziland
10	Kagiso Keatimilwe	Council for Scientific and Industrial Research	South Africa
11	Mark Colvin	Medical Research Council	South Africa
12	Nyasha Usada	Ministry of Environment and Tourism	Zimbabwe
13	Portia Segomelo	National Conservation Strategy Agency	Botswana
14	Rob Hounsome	Council for Scientific and Industrial Research	South Africa
15	Rosemary Kindyomunda	Uganda AIDS Commission	Uganda
16	Solomon Kebede	Environmental Protection Authority	Ethiopia
17	Tawonga Mbale	Ministry of Research and Environment Affairs	Malawi
18	Teddy K Nyemba	Ministry of Tourism, Environment and Natural Resources	Zambia
19	Vasna Ramasar	Council for Scientific and Industrial Research	South Africa

A broad literature review was carried out to obtain background on the research topic and to provide a context for the collection of primary data (Flowerdew and Martin, 1997). The review was multi-disciplinary as the research required inputs from a range of disciplines. Secondary data sources on social impact assessment, health impact assessment and HIV/AIDS were used by the researcher to guide the development of the framework for integrating HIV/AIDS into the EIA process. A broad literature review was carried out in these areas to understand the different approaches applied to impact assessment internationally. In addition, the researcher looked at material that had been prepared for gender mainstreaming and health risk assessment to draw out methods that could potentially be useful to the assessment of HIV/AIDS impacts in EIA. Secondary data sources were thus used in creating the broad theoretical argument of the research as well as guiding the specific elements in the development of the framework for integration. The literature was obtained from books, journal articles, research papers, press releases and the Internet.

The second form of secondary data came from EIA reports. Secondary data was obtained from the various EIA reports reviewed through the research. The purpose of this data collection was to obtain a perspective on how EIA reports addressed issues of HIV/AIDS. This provided a context to compare the case study material collected on the three EIA's for which primary data was collected. Nine EIAs for large development projects were reviewed. Information was obtained from the reports through analyzing the texts in terms of where and how HIV/AIDS was raised as an issue and whether this was taken into account in approving and developing the project. Unlike the interview processes, the analysis of text did not apply a hermeneutic approach. The purpose of the review was not to interpret the intention of the authors of the EIA report but simply to record what information was presented. Flowerdew and Martin (1997) note that with secondary data sources, there is an issue regarding representativeness and that the data "reflects the aims and attitudes of the people and organizations who collected the data" (Flowerdew and Martin, pg 65). The EIAs reviewed do present a particular perspective from the EIA consultants and to some extent can be interpreted as representative of individual practitioner's approach to addressing HIV/AIDS in the EIA process. For the purposes of this research, this bias is less a problem and more an indicator of how EIA practitioners address HIV/AIDS impacts in EIA – an issue the research seeks to uncover. Some level of interpretation was carried out in comparing the information reflected in the EIA reports against the potential HIV/AIDS situation as understood by the researcher based on site visits and knowledge of the issues.

#### 5.4 Data Analysis and Interpretation

The data collected throughout the project was used for a qualitative analysis of how HIV/AIDS issues are being addressed in the environmental assessment process. This approach allowed the researcher to obtain detailed information on the complexity of issues needed to develop a framework for the integration of HIV/AIDS issues into EIA. Due to the limited data sample, the perceptions and understanding of the scope of the EIA process cannot be generalized to all practitioners working in the field of development. However for the purpose of this study, a generalized result was not considered as important as being able to illustrate some of the perceptions that exist and influence EIA practice.

The analysis of the data was guided by the need to answer the main questions of the research. The various pieces of data collected through the project were analysed in terms of firstly understanding the potential for EIA to address HIV/AIDS issues and then based on the results of this analysis, recommending a framework for integration of HIV/AIDS issues into the EIA process. Within the first part of the study, theory formed the basis for analyzing the data. The role and purpose of EIA was considered against the ecological modernisation approach. The analysis particularly focused on understanding the influence of ecological modernisation thinking on how EIA is perceived and applied. From a developing country perspective, the prioritization of social and health issues and questions of social justice by EIA and development practitioners and in EIA texts were explored. Finally the relationship between HIV/AIDS and EIA was considered in the light of different people's understanding of HIV/AIDS as a development or strictly health problem. These broad themes created a structure for the analysis of the data in order to understand EIA's potential to address HIV/AIDS.

The primary data from case studies and EIA reports were also used to provide practical inputs for the development of the framework for integration of HIV/AIDS issues into EIA. The interviews with people directly involved in implementing EIA, HIV/AIDS and development projects provided a wealth of information on the opportunities and constraints to integration. The analysis of texts on HIV/AIDS, social and health impact assessment also provided useful ideas for how the framework could be developed. In particular, projects that were successful in

addressing HIV/AIDS through the EIA process served as sources of 'good practice' for the development of the framework.

### **5.5 Limitations**

Throughout the study, a number of limitations to the research were recognized. The broad scope of the research as well as the qualitative nature of the methodology brought an element of subjectivity.

The researcher recognized upfront that there is a tremendous sensitivity associated with discussions on HIV/AIDS. This related to people's discomfort with discussing sexual matters as well as the stigma associated with the disease. The researcher recognized that as an Indian female working in different countries, her position as an outsider was very apparent. Many of the respondents were high-level professionals and the topic was one they had all had to consider. The semi-structured approach to the interviews also allowed the researcher to gauge the level of comfort of the respondent and tailor the interview appropriately.

Apart from the sensitivity relating to the topic of the research, it has been recognized that with any form of qualitative research, there is a need for reflexivity in which the researcher must be aware of the dynamic between self and subject (Robinson, 1998). The interview sample consisted of senior officials in national governments and donor agencies. Valentine (1997) recognises that gender, age and marital status are all aspects of a researcher's identity that can limit access to informants or situations. The researcher recognised upfront that some interviewees, who were largely African men in their mid-forties and fifties, may have felt uncomfortable to discuss the sensitive issue of HIV/AIDS with a young Indian female or worse, not taken the interview seriously. This problem was partly alleviated through the World Bank support for the project and the researcher engaging with interviewees in her role as a CSIR employee.

The influence of the World Bank was another element which may have influenced the information shared by the respondents. Whilst the involvement of the World Bank enabled the researcher to gain access to high-level officials, the research was associated with the World Bank. This may have influenced what people were willing to share based on the image they wanted to portray to the World Bank. The role of

the World Bank also influenced the data sampling approach and the EIAs that were reviewed.

Finally it must be noted that applying the hermeneutical approach in a qualitative analysis has inherent subjectivity. It must be recognized that the data has been interpreted and constructed according to the researcher's own subjectivity (Parfitt, 1997). The researcher attempted to limit the bias of the study by drawing on the experience and literature of experts in the fields of EIA and HIV/AIDS.

## **5.6 Conclusion**

The methodology applied in this study involved the use of various data sources, data collection and analysis techniques. Interviews and analysis of EIA reports formed the core primary data sources. These were supplemented by the use of observation in the field and an extensive review of literature. The methodologies used in the research were qualitative in order to understand people's perceptions of EIA and attitudes towards assessing HIV/AIDS impacts. Although the methods provided a richness of data, it is not possible to generalize the findings. Instead, the data is used to reflect some of the views that are prevalent amongst EIA practitioners and project leaders and to compare these responses with the theory presented in the literature. The interrogation of the various pieces of data allowed the researcher to draw conclusions about the relationship between EIA and HIV/AIDS as well as to draw conclusions regarding the influence of the paradigm of ecological modernisation on EIA practice.

The interviews and more especially, the case studies provided valuable guidance for the researcher in the development of a new framework to promote the integration of HIV/AIDS issues into the EIA process. Evidence drawn from both primary and secondary data sources was used to support a particular approach to the integration of HIV/AIDS issues in the EIA process.

## 6. APPROACHES TO EA AND THE IMPLICATIONS FOR ADDRESSING HIV/AIDS ISSUES IN THE PROCESS

### 6.1 Introduction

This chapter presents the results of the study into how people view EIA and the opportunities and constraints created by different paradigms to addressing HIV/AIDS issues. The results begin with an exploration of the mainstream environmental management discourse and how people view the EIA process as a result of this discourse. Once the purpose and intent of EIA is understood, consideration is given to how social issues such as HIV/AIDS are considered in EIAs for World Bank-funded development projects. The need to address HIV/AIDS in EIA is uncovered through both interviews and case studies and the willingness of practitioners to consider HIV/AIDS is presented. Some insights into how HIV/AIDS is addressed in EIA is provided through a review of case studies of EIA projects. Data from the researcher's investigations are interrogated against the differing concepts of ecological modernisation and justice.

The results are organized into two broad themes. The purpose of the first theme is to provide an understanding of the underlying environmental management discourse which frames the way people view environmental assessment and management. The first theme, presented in sections 6.2 and 6.3, describes how the current environmental management policy framework and practice considers the social and health impacts of development. The evidence used to substantiate the description of current thinking was obtained through interviews where people's understanding and perceptions of EIA was tested. This section highlights the variable opinions of the purpose of EIA, how these are translated in the development of EIA reports and the resultant problems that are created in African countries. This theme also provides evidence of how social issues are largely under-assessed in the EIA process through a review of case studies, interviewees' inputs and the researcher's experiences through visiting project sites. This section explores the separation that occurs when addressing social and environmental issues as well as some of the practical problems in carrying out EIA which limit an adequate examination of social and health issues.

The second theme, presented in section 6.4, highlights the practical experiences of integrating HIV/AIDS issues into the process through case studies. This theme provides the foundations which are adapted in Chapter Seven in the development of a framework to improve the use of environmental management tools in considering HIV/AIDS.

## **6.2 Constructions of the role of EIA, purpose and function**

Understanding perceptions of the purpose of EIA provides an insight into how practitioners view the tool. The way in which people perceive the purpose of the tool is indicative of the underlying discourse which defines their thinking. Literature has shown that there are a number of schools of thought regarding the purpose of EIA ranging from a technical process for assessing ecological impacts of development through to a tool for promoting sustainable development (Bartlett and Kurian, 1999).

### **6.2.1 Perceived purpose of EIA**

Most EIA practitioners interviewed viewed EIA as a tool to assess ecological impacts of development. These practitioners did however recognize that the process had changed over time and now needed to include a social component. The general response however was that the inclusion of social issues was an uncomfortable fit. This concern was aptly expressed by one World Bank EIA expert who noted that “there is a fear that EIA as a discipline has become very diluted as the process now looks at social, health, gender and other issues. The question is thus raised as to whether the process is providing a broad scope at the expense of depth in the assessment” (Chee, 24 May 2000). This response clearly indicates the perception that EIA has its roots firmly within the ecological field and this remains its primary purpose. This view was the mostly widely held amongst interview participants and can be aligned to the political economy model of EIA described by Bartlett and Kurian (1999).

A further perspective on EIA was a purely process driven view of EIA as simply a “sign-off” process within a project development cycle. This view expressed by some technical project managers and government representatives from sectoral departments such as transport described EIA as a mechanistic process that must be followed in order to get project approval. From this perspective, many of these

interview participants saw EIA as being limited to an investigation and report that must be prepared in the project cycle but not necessarily influencing the project to any fundamental degree (Ssebanakitta, 07 February 2001). This perception is aligned with the symbolic politics model of EIA described by Bartlett and Kurian (1999). This view of the purpose of EIA is probably the most harmful as the process is relegated to nothing more than a paper exercise that must be followed with no goal except to ensure approval of a project (Roome, 24 May 2000). Interview participants who held this view were strongly opposed to expanding the applicability of EIA as this was felt to further burden a project with unnecessary costs and time delays (Schliessler, 25 May 2000).

A few interview participants took a broader view of seeing EIA as a tool for sustainable development. These people, mainly EIA practitioners, viewed EIA as having evolved naturally to incorporate social components as our understanding of the definition of "environment" evolved to incorporate ecological, social and economic dimensions (Mercier, 22 May 2000). These practitioners played the role of advocates in broadening the focus of the process. What was not however clear through the interviews, was whether this view was held because of a genuine belief in the role of EIA for sustainable development (aligned with Bartlett and Kurian's (1999) institutional model of EIA) or as a means to strengthen the position of EIA and therefore environmental departments within organizations (supporting Bartlett and Kurian's (1999) organisational politics model of EIA).

The first view of EIA represents a narrow perspective of the purpose of EIA. Identifying the purpose of EIA as being limited to ecological issues echoes aspects of the ecological modernisation discourse that see EIA as a process developed to focus on the ecological impacts of development. The responses received suggested that many people involved in EIA still work from an ecological modernisation discourse and thus have limited the purpose and function of EIA to technological adjustment. Within this discourse which represents a weak form of sustainability, social issues receive little attention (Blowers and Pain, 1999). The second view held by respondents of EIA as a necessary process for project sign-off could almost be described as a pre-ecological modernisation discourse which did not take serious consideration of the environmental consequences of development. This is perhaps an extreme analysis of the responses as some of these respondents may have at least recognized the environmental impacts of development. However what was clear from their responses was that EIA was not seen as a fundamental change

agent in project design and implementation. Environmental issues were thus being separated from the development debate. The third view of a broad scope for EIA was put forward by a very limited number of respondents. Most of the respondents who held this view tended to be high-level officials who were involved in defining organizational policy. These respondents may therefore be more greatly influenced by the global environmental drive towards sustainable development and more inclined to support a social justice approach. All the respondents advocated for a broader purpose and function for EIA. They all acknowledged weaknesses in addressing a broader range and depth of issues in practice (Mercier, 22 May 2000; Fye, 23 May 2000).

By far the dominant paradigm amongst interview respondents was that of viewing EIA as a tool to assess ecological impacts within an ecological modernisation discourse. Although recognizing the presence of social impacts of development, many respondents kept returning to what they termed the "fundamental purpose" of EIA (Fye, 23 May 2000). This indicates that although there is an acknowledgement of the range of development impacts, EIA is not always perceived as the appropriate tool for addressing these impacts. This view clearly highlights the limited perception of EIA as a process of the ecological modernisation era which has a defined and narrow purpose to address within the relationship between the ecological environment and development. Not many people perceived EIA as a tool to promote sustainable development and this seems to be because many respondents were viewing the tool from a historical understanding of its origins.

### ***6.2.2 Application of EIA in developing countries: Uganda and Ethiopia experience***

In addition to obtaining a broad response to how people perceive the EIA process, during the field trips to Uganda and Ethiopia an attempt was made to also understand how EIA was seen in developing countries relative to developed countries. The researcher reviewed the EIA regulations in the two countries and interviewed the heads of the relevant environmental departments regarding their policies. The results of this comparative review are presented below.

In accordance with provisions made in the National Environment Statute, No. 4, 1995, EIA became a legislated process in Uganda in 1995. The Statute also made provisions for a National Environment Management Authority (NEMA) that is

responsible for co-ordinating and overseeing the implementation of EIA guidelines, reviewing and approving EIA's (NEMA, 1997). The EIA process in Uganda follows the original process advocated in the US NEPA. In Uganda, EIA has been implemented for a number of years with the support of development agencies such as the World Bank (Okedi, 31 January 2001). Government staff are also sent overseas to be trained in EIA practice at American and English universities in an effort to build local capacity (Kamanda, 31 January 2001).

In Ethiopia, the focus on the environment in the development agenda in Ethiopia has been effectively implemented since 1995 through the country's Constitution. Prior to 1995, project evaluations and decision-making focused on short-term technical feasibility and economic benefits. The Constitution (1995) of the country included a Bill of Rights which states that the people of Ethiopia have the right to "improved living standards and to sustainable development" (Article 43: The Right to Development) and "all persons have the right to a clean and healthy environment" (Article 44: Environmental Rights). This brought environment clearly onto the development agenda for the country.

The Environmental Protection Authority (EPA) was established in response to the requirements of the Constitution (Proclamation No 9/1995). The objective of the EPA is to: "...ensure that all matter pertaining to the country's social and economic development activities are carried out in a manner that will protect the welfare of human beings as well as sustainably protect, develop and utilise the resource bases on which they depend for survival" (Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia – Proclamation No 9/1995). In April 1997 the EPA adopted the Environmental Policy for Ethiopia. This document supports the Constitution with its guiding principles on environmental care.

The EIA process adopted in Ethiopia is based on international EIA procedures and is comparable to the World Bank's process. The EPA wishes to keep up to international standards, including those of international agencies such as the World Bank (Egziabher, 08 November 2000).

The review of EIA practice in both Uganda and Ethiopia revealed that both countries have adopted EIA processes from developed countries. Whilst local policies have been promulgated in each country, the process that is legislated is not unique to the country. In both countries, government representatives indicated that they strongly

supported following international trends. This indicates a reliance on developed countries to define EIA and there was little indication that these countries were applying innovative thinking to EIA to suit their unique circumstances. It is thus probable that the EIA process in these two countries is reflective of developed country thinking and strongly influenced by ecological modernisation in its design and focus.

It was also evident from the review that both countries were reliant to some degree on support from donor agencies to develop EIA. This is especially true for local capacity building, and organizations such as the World Bank have played a significant role in funding capacity building in developing countries (Okedi, 31 January 2001). Much of the capacity building involved funding government staff to travel to developed countries to study for a period of time. These staff members are thus being trained in EIA according to developed country processes and not necessarily focusing on the issues of their own countries.

The application of EIA in Uganda and Ethiopia suggests that for the most part, EIA practice is following developed country trends and there has been little attempt to customize the process for issues of concern to local circumstances. It could thus be argued that EIA in these countries is influenced by the prevailing paradigm of the developed countries, namely, ecological modernisation. This creates problems when transposing these processes on developing countries which have different social, economic and institutional contexts (Blowers and Pain, 1999). The dominance of ecological modernisation in EIA application means that the weaknesses of the paradigm are also transposed on EIA and thus social issues probably receive less attention in the technocratic process. EIA is thus less driven by the need for social justice in development than by the limited need for scientifically valid information for decision-making.

### **6.3 Prioritisation of social issues**

Literature has shown that social issues tend to be under-assessed in the EIA process (Vanclay, 2004). This argument has been tested in the context of the current research, particularly in terms of the manner in which issues such as HIV/AIDS are addressed.

### **6.3.1 Adequately addressing social and health issues in EIA**

The evolution of EIA from a biophysical focus has meant that EIA practitioners traditionally have earth science expertise. It was recognised by many of the environmental specialists responsible for EIA within the World Bank that they are not specialists in the diverse range of social issues that now need to be addressed and as a result they may not be able to do justice to these issues in EIA (Chee, 24 May 2000). The perception that EIA is still within the domain of the earth sciences is evident by the fact that most EIA practitioners still tend to come from science or engineering backgrounds (Okedi, 31 January 2001). A further indication of how social issues are prioritized in EIA is the fact that within the World Bank African region in 2000 there were only two social specialists working with EIA applications (Lema, 06 November 2000). The limited resources dedicated to social issues means that the projects with the most significant social impacts received attention and projects with lesser impacts were left to the supervision of biophysical environmental specialists. Clearly, this limitation makes the application of social justice in EIA very limited and without the inputs of social specialists it is probable that the EIA process does not address the social impacts or issues of justice adequately.

According to Lema (06 November 2000) social and health specialists were not involved in EA processes for World Bank-funded development projects at all in the past. This has started to change to some extent, especially for World Bank projects that have a large resettlement component (Lema, 06 November 2000). However it has largely been the responsibility of the EA advisor to provide input on issues such as HIV/AIDS (Chee, 24 May 2000). In addition, the fact that social and health experts are not an integral part of the task teams is indicative that these issues are not highly prioritized within projects.

An interesting development within the World Bank that further attests to the separation of social issues from EA has been the proliferation of independent tools to assess the impacts of poverty and social issues. Over the last few years, separate processes have been developed for Poverty Impact Assessment and Social Impact Assessment (Mercier, 22 May 2000). During the researcher's visits to the World Bank, it appeared that the Social Development, Health and Environment Departments of the Africa region tended to work largely in isolation of each other. As a result, each group became involved in development projects with the intention of bringing their issues to the fore. As an example, a Social Analysis Sourcebook has

been developed to incorporate social dimensions into Bank-supported projects (World Bank, 2002). The sourcebook advocates a social assessment which is similar to the social impact assessment that theoretically could be carried out within the context of the EIA process. This duplication of processes is problematic, especially for task team leaders who are responsible for meeting all assessment processes before a project can be approved (Schliessler, 25 May 2000).

In summary, it would appear that there is still a strong emphasis on biophysical issues in EIA application. The dominant perception of the purpose of EIA being to address biophysical issues has meant that social issues have been sidelined in the process. This has occurred as a result of the type of expertise involved in EIA (scientists with few social scientists) as well as the separation of social assessments into an independent field, both indicative of ecological modernisation. There are some indications that this trend is changing. The World Bank for example has expanded its safeguard policies to cover more social issues such as resettlement, cultural heritage, indigenous knowledge and public information and disclosure. The expansion of the safeguard policies reflects a greater recognition of the need for social justice in development. This is also indicative of the failure of EIA within the ecological modernisation context to adequately address social and health impacts, particularly in developing countries.

### **6.3.2 *Weighting social, economic and environmental impacts in assessment***

Where social issues are recognized and assessed as part of the EIA, a further problem is evident through disparities in how social and health impacts are assessed compared to economic and environmental impacts.

A number of constraints to the way EIA is applied negatively affect the assessment of social and health issues such as HIV/AIDS. One factor recognized as a constraint is the lack of long-term data on social issues. The availability of HIV/AIDS prevalence and incidence data for example is not available across most developing countries and practitioners are thus reliant on national prevalence figures from ante-natal clinic data. This can present a skewed picture of what is happening in the population of a particular community (Sempala, 29 January 2001).

Obtaining accurate social data is possible, however this often requires a longer timeframe to carry out the research and has implications for project budgets and staff

requirements (Okema, 30 January 2001). In addition, obtaining accurate information from a community requires that a relationship be developed between the researcher and the community. In many cases, EIAs in developing countries, especially those funded by development banks, are contracted to international consulting companies. Unless these companies have an established presence in the area or work with local partners, they are unlikely to be able to develop trust relationships with communities in order to truly uncover the complexity of social impacts that may be associated with a development (Lema, 06 November 2000). Dealing with people thus brings a subjective dimension to the assessment which is less apparent when dealing with ecological environments. Unless a social justice approach is adopted, the public participation process may not be sufficiently participatory and some social impacts may not be identified or properly assessed.

As a result of insufficient data and analysis of social and health issues there tends to be weaker information to formulate a strong argument on impacts. In contrast, a substantial amount of environmental data is often provided which strengthens the ecological arguments. As such, social issues tend to receive lesser weighting in an assessment that still favours a technocratic approach. This reflects the approach of weak ecological modernisation.

### **6.3.3 Stakeholder engagement**

A review was carried out of the consultation and public participation processes described in EIA reports and from in-country experience in Uganda and Ethiopia. Consultation and public participation processes include information dissemination, consultation, collaboration and partnership and empowerment and control with the latter representing the greatest extent of engagement (Lee and George, 2000). In many of the EIA reports reviewed, the consultation and public participation was limited to information dissemination and consultation. In most cases, including the Lake Victoria Environmental Programme, the consultation was limited to formal public meetings and specialist input from technical experts involved in relevant scientific disciplines.

A detailed review of the assessment of the Lake Victoria Environmental Programme shows that HIV/AIDS was raised as an issue to a very limited extent in the participation process. The bulk of the participants involved in consultation came from scientific disciplines and this introduced a bias in the issues towards biophysical

concerns (NARO, 1999). The consultation also tended to focus on fishermen and this excluded women who sell fish as well as those women who are involved in activities that are secondary to the fishing industry such as bars, accommodation facilities and commercial sex workers. These vulnerable groups were not provided with an opportunity to participate in what tended to be highly technical, open forums to discuss the Lake Victoria Environmental Programme. Hence many of the groups remained as invisible stakeholders (Scott and Oelofse, 2005).

This example reflects a situation that was found to be prevalent in many projects and ultimately leads to a stakeholder engagement which is not empowering to all those affected by a project. If a justice approach had been adopted for the project, the principle of participatory justice would have been applied and it is likely that the participation process and stakeholder concerns would have been reflected differently in the EIA.

Section 6.3 shows that there is a weakness in addressing social issues both in how people think about EIA, as well as how the tool is implemented. Part of the problem may stem from the fact that EIA was created in developed countries where the provision of social services to deal with socio-economic and health concerns is undertaken by the government and part of the problem rests with the ecological modernisation paradigm which has dominated thinking about EIA globally. As a result of these two factors, social issues remain poorly assessed in EIA. In developed countries where social issues are adequately handled by the state this is not as problematic as social impacts of development may be resolved through other mechanisms within the social services system. In developing countries where the government system is not able to cope with the demand for social services, development impacts can often go unaddressed unless they are properly assessed and managed through the project itself.

#### **6.4 A case for addressing HIV/AIDS in the EIA process**

Having established that the current environmental assessment and management discourse is still largely influenced by ecological modernisation and has limited consideration of social justice, the researcher then sought to understand how this has influenced people's perceptions of the relationship between EIA and HIV/AIDS. As discussed in section 6.2 and 6.3, the pervasive view is that the purpose of EIA is still

to address biophysical impacts of development and this has meant that social issues have received less attention in the process. From this perspective, HIV/AIDS would thus not feature highly in the EIA process. In contrast however if one considers the magnitude of HIV/AIDS in Africa as well as the fact that development projects can act as vehicles to greater HIV transmission, HIV/AIDS impacts are serious social concerns for projects. This section describes the perceptions of stakeholders of EIA's role in addressing HIV/AIDS and investigates whether this is only influenced by the dominant discourse of environmental assessment and management or other factors.

#### **6.4.1 *Recognising HIV/AIDS as a valid impact to be addressed in EIA***

In interviewing stakeholders across organizations and countries, a number of different views were raised on whether HIV/AIDS should be addressed in the EIA process.

Most commonly people view HIV/AIDS as a health issue and therefore would be resistant to addressing it in EIA which traditionally did not look at health issues (Johnson, 24 May 2000). This argument may be taken forward by those who would argue that assessing HIV/AIDS would shift the focus of EIA from green (ecological) to more brown (social) issues (Souhail, 23 May 2000). This view reinforces the fact that the dominant paradigm from which people view EIA is a narrow one focused on ecological issues (ecological modernisation).

Even when the magnitude of HIV/AIDS as a development issue was recognized, respondents were still hesitant as to how to assess HIV/AIDS effectively in the EIA process. Okedi (31 January 2001) noted that in Uganda in the past, HIV/AIDS was not dealt with by NEMA as it was considered to be dealt with by other ministries. Legislated EIA in Uganda is relatively recent and NEMA is adjusting the process to incorporate new issues. Social issues have been incorporated to a limited extent and NEMA recognize that HIV/AIDS is becoming more of a concern, especially with larger projects (Okedi, 31 January 2001).

Professor Okedi indicated that they would be happy to take the lead from any new initiatives which would help them incorporate HIV/AIDS into the EIA process (Okedi,

31 January 2001). He did however raise a concern about the lack of competence within the organization to deal with HIV/AIDS.

A similar view was held by Dr Egziabhe, General Manager of the Environmental Protection Agency (EPA) in Ethiopia. In his view, the introduction of HIV/AIDS issues into EIA for the World Bank could be carried out for EA in Ethiopia allowing for synergistic growth between the policies (Egziabhe, 08 November 2000). He stated that the EPA would be particularly interested in understanding how HIV/AIDS can be incorporated into the Ethiopian guidelines.

The secretariat of the Ethiopian HIV/AIDS Council expressed his support for any initiatives which might support mitigation of HIV transmission in Ethiopia (Mariam, 06 November 2000). He expressed the view that the incorporation of HIV/AIDS issues into the EIA process would facilitate prioritisation of HIV/AIDS in development projects. He pointed out that the Council was sometimes called upon to advise the Investment Authorities on HIV/AIDS-related issues and could play a similar advisory/reviewer role for EIA's.

The European Union provided a different perspective on their approach to integrating HIV/AIDS issues into development projects. For development projects such as roads, money is already being put aside for an HIV/AIDS component in road projects. At present the EU does not have an HIV/AIDS Impact Assessment but rather carries out a qualitative assessment. The projects include a component for awareness raising and condom distribution in the labour force and the surrounding community. The EU subcontracts agencies to carry out the HIV/AIDS component through the Ethiopian Roads Authority (ERA) and contractors.

Olthof (10 November 2000) noted that mechanisms to hold contractors responsible were not really in place but contractors could not afford to break the contracts, as they would lose future EU projects. The application of the HIV/AIDS component was thus carried out on a trust basis rather than as a prerequisite of the project. A further constraint was the fact that it is mostly engineers doing the work so the focus is not specifically on the social aspects of projects. He agreed that it was difficult to make HIV/AIDS a priority outside the health sector as each sector has its own priorities. The approach adopted by the EU is not based on understanding the nature and extent of the HIV/AIDS problem and relies on a 'one-size-fits-all' solution which may

not be appropriate to all situations. In addition, the approach is loose and ad hoc and relies on goodwill to ensure HIV/AIDS issues are addressed.

A summary of the respondents' comments suggests that there is still some resistance and a great deal of hesitancy to assessing HIV/AIDS in EIA. This seems to be the result of people viewing HIV/AIDS as a health issue and thus not appropriate for EIA. Where respondents recognized the development impact of HIV/AIDS, there was a willingness to consider assessing it within the EIA process by both EA and HIV/AIDS experts. The main constraint raised by these respondents was a lack of clear guidance on how the integration would occur. Experience from the European Union where mainstreaming of HIV/AIDS into projects is taking place, suggests that a voluntary approach may not be very successful because of the differing priorities of people.

The question of whether the EIA process should in fact address HIV/AIDS issues was also put to a group of invited EIA experts at a workshop in South Africa in 2003 (Appendix 4). The workshop participants were selected from high-ranking government officials in the environmental and HIV/AIDS departments from 11 southern and eastern African countries.

The initial response of participants to the topic was wariness to tackle HIV/AIDS when they were not experts on the topic (Vilakati, 27 February 2003). However once evidence of the issues was presented to participants, there was a general consensus from all participants that HIV/AIDS can and should be assessed within the EIA process. This endorsement of the need to integrate HIV/AIDS into EIA provides necessary support for the research and reflects that people are open to the need for this assessment. Feedback was sent to the researcher after the workshop which reflected some of the thinking. The recognition of the enormity of the HIV/AIDS pandemic and the need for social justice was highlighted by an EIA practitioner from the National Environmental Management Council in Tanzania.

*"I hope you all arrived home safely like me. I am still being haunted by the 28.4 million HIV/AIDS cases for Sub-Saharan Africa and I am trying to pass it to my boss and other colls so that they can have their share and thus play their part."*

(Maembe, 05 March 2003, via email)

The representative of the National Environmental Secretariat in Lesotho was also enthusiastic about the framework but raised one of the difficulties in inter-departmental co-ordination in government.

*"I hope those of you dealing with EIAs have started discussions on integrating HIV/AIDS into EIA process in your respective countries. I have and it was like - "Brilliant Idea"! However, it was not so easy yesterday when I visited the Lesotho Aids Programme Co-coordinating Authority (LAPCA). I just needed to have an idea of what they are doing and what kind of information they have, the attitude my colleagues was so negative. But I am not giving up, I will get what I want, this is a national issue and no jokes."*

(Puling, 05 March 2003, via email)

The motivation for assessing HIV/AIDS issues within EIA was supported by a number of conclusions drawn by workshop participants.

*1. EIA is a process that provides early screening of the impacts of all Bank-funded projects:* The EIA process has been developed to fit closely with the project development cycle within the Bank. As a result, the results of the EIA can feed into the project at the design stage rather than being added-on at the end. By integrating HIV/AIDS into the EIA process, HIV/AIDS issues can similarly be considered early in the project so that (i) the project can be designed to limit the impact on transmission of HIV, (ii) the TORs and agreements with contractors can include HIV/AIDS responsibilities, and (iii) the project budget can allocate a budget for the HIV/AIDS component.

*2. The broadening focus of EIA includes consideration of human health issues. Elements of HIV/AIDS impacts have already been incorporated into projects, albeit, on an ad hoc basis.* In support of environmentally sustainable development, the EIA should ideally adopt a holistic approach to the environment. This will require consideration of biophysical, social and economic issues in the EIA. As health is one of the factors assessed, many new EIAs have identified HIV/AIDS as a concern. Therefore rather than create a further process and run the risk of duplication, HIV/AIDS should be formally integrated into the EIA process. As the EIA process is well established, integrating HIV/AIDS issues into EIA will decrease unnecessary

costs, resources and time wastage that might be associated with a stand-alone process.

3. *The EA process follows a project through from initiation through to implementation and thus allows HIV/AIDS issues to be brought into the project at the start and carried through to the end of the project cycle:* The nature of the EA process will allow HIV/AIDS to be incorporated through the life of the project. This will allow for initial screening of potential HIV/AIDS impacts; carrying out an HIV/AIDS Specialist Study (if necessary); implementing an HIV/AIDS Management Plan; and establishing monitoring and evaluation at the end.

4. *HIV/AIDS prevalence in an area can lead to the failure of a development project and therefore projects must take account of HIV/AIDS before development is started.* HIV/AIDS is a risk factor for development projects. It is in the best interests of the developer to consider HIV/AIDS upfront and adopt a proactive approach to mitigate and management negative impacts. The EIA process supports this pre-development assessment.

5. *EIA already has an established process that can be adapted to include HIV/AIDS impacts:* By integrating HIV/AIDS into EIA, this will allow HIV/AIDS (an unfamiliar topic for many) to be introduced into projects outside the health sector, through a process that is already familiar to assessment practitioners and developers. This will encourage the acceptance of a multi-sectoral approach to HIV/AIDS.

Based on these considerations, HIV/AIDS can be viewed as a valid impact to be assessed in the EIA process. These arguments reflect a shift in thinking about EIA and the second point in particular, shows a shift away from an ecological modernisation perspective towards a broader perspective in EIA.

## **6.5 The consideration of HIV/AIDS in EIA: Case studies**

A number of EIA reports were analysed to understand how HIV/AIDS issues were addressed in practice. Firstly, nine EIA reports were reviewed simply to document the way in which HIV/AIDS was addressed, if at all. The review showed that particularly in newer EIAs, there is some recognition of the potential impacts of the projects on the transmission of HIV (Table 10).

**Table 10: Review of EIA Reports: Analysis of the assessment of HIV/AIDS impacts**

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
<b>Bujagali Hydropower Project</b>	EIA prepared by ESG International Inc. Canada and WS Atkins, Epsom UK in March 2001	The project is a 250MW hydropower facility which was proposed on the Victoria Nile River near Jinja, Uganda.	<p>A comprehensive public consultation process was carried out using various consultation methods.</p> <p>Effects on public health including HIV/AIDS was noted as one of the key project issues.</p> <p>However whenever considering the alternative project sites, HIV/AIDS was not considered in making the decision.</p>	<p>Public education campaigns and condoms were made available in the community early in the project.</p> <p>Improvement of health care facilities in the project area</p> <p>Human resource policies recommended included:</p> <p>No construction camp will be erected at the project site</p> <p>Unskilled labour will be recruited preferentially from the local population, and particularly from the village affected by the project.</p> <p>BEC will operate buses from Jinja, and along the east and west banks of the Nile to the construction camp site at every shift change</p> <p>Skilled expatriate workers will be housed at the existing camp in Jinja with accommodation for both single and married</p>	<p>The EIA was comprehensive in its approach to both social and health impacts.</p> <p>The review of the existing socio-economic conditions paid attention to the HIV/AIDS prevalence in the area.</p> <p>Good suggestions for project design to reduce HIV transmission but no mention of AIDS management and provision of treatment and care.</p> <p>No recognition of potential HIV/AIDS impacts associated with resettlement of people</p> <p>No consideration of gender balance in employment opportunities</p>

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
				<p>workers.</p> <p>An STD awareness programme will be part of the training package for all workers</p> <p>Condoms will be made available to workers via the site</p>	
<p><b>Rural Water Supply and Sanitation Project</b></p>	<p>EIA prepared by Serviceplan Ltd, Dar Es Salaam, Tanzania in March 2001</p>	<p>The purpose of the project is to improve water supply, sanitation and hygiene conditions for the rural communities of Rufiji district, Tanzania.</p> <p>In defining the scope of the project, specific mention it was noted that the project will focus on community health, especially promotion of HIV/AIDS prevention among the rural people through awareness creation and campaigns.</p>	<p>A Health Officer, Mr Mwinuke was included in the EIA team to collect medical information.</p> <p>Potential impact of increased incidence of STD &amp; HIV/AIDS due to construction workforce in the village recognised.</p>	<p>Recommendation for awareness &amp; education campaigns on STD &amp; HIV to sensitize the local community.</p> <p>Identified the need for the project health committee to collaborate with the village dispensary and medical staff</p> <p>Recommendation to limit the number of workforce to technical &amp; skilled labour only. The rest of the workforce should be drawn from the rural communities.</p> <p>Location of the construction camp far away from the village settlement.</p>	<p>Focus on HIV/AIDS in the local community but little mention of HIV/AIDS in the workforce or the potential for HIV transmission through accidents during construction.</p> <p>No substantial assessment carried out on potential HIV/AIDS impacts.</p> <p>Description of the socio-economic environment did not make any mention of the HIV/AIDS prevalence.</p> <p>Only the lack of medical facilities was noted in terms of health. The village baseline information noted malaria and diarrhoea as prevalent disease but not HIV/AIDS</p>

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
					<p>The training plan did not include a component on HIV/AIDS.</p> <p>Overall the assessment of HIV/AIDS was superficial and was presented as a discreet component in the management recommendations but not properly assessed in the project.</p>
<p><b>Lagos Urban Transport Project</b></p>	<p>EIA prepared by BMT Cordah Limited in April 2002</p>	<p>The project involves building the capacity of the Lagos Metropolitan Area Transport Authority (LMATA) and implementing maintenance and rehabilitation work on some of the main road networks.</p>	<p>The review of the socio-economic conditions notes the informal trade nodes at transport intersections but makes no mention of HIV/AIDS prevalence.</p> <p>Social issues recognised including involuntary resettlement and health and safety but these are not assessed in great detail. Health impacts focused on respiratory impacts from air pollution.</p>	<p>No management recommendations on HIV/AIDS</p>	<p>Although the socio-economic impacts of increased informal trade is mentioned, the potential for increased HIV transmission at these nodes is not raised.</p> <p>The risks of HIV transmission through accidents during construction is not mentioned.</p> <p>The strategy for corporate environmental and social responsibility does not recognise HIV/AIDS.</p>

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
					<p>The project offered an opportunity to increase HIV/AIDS awareness in the LMATA but the EIA did not highlight this opportunity in the recommendations.</p> <p>The job description for the social specialist recruited to the LMATA Safeguard did not specify health issues but focused on resettlement.</p>
<p><b>Songo Songa Gas to Electricity Project</b></p>	<p>EIA prepared by HBT AGRA Limited, Norplan and ESG International in 2000</p>	<p>The Songo Songo Gas to Electricity Project is designed to develop and market gas resources within Tanzania. The project will deliver natural gas from the Songo Songo Island to Tanzania Electric Supply Company Ltd's Ubungo power Plant and the Wazo Hill Cement Factory in Dar Es</p>	<p>A specialist study was undertaken to provide HIV/AIDS information for Songo Songo Island and the pipeline route communities and project followers. Very little HIV/AIDS data was available for the island.</p> <p>Potential negative impacts identified included:</p> <p>1. A chance of the increase</p>	<p>A recommendation was made that a strategy for dealing with HIV/AIDS for the entire project be developed which involved government, NGOs and experts.</p> <p>Mitigation measures recommended included pre-employment education and treatment programmes for the contractor workforce, community leaders and inhabitants.</p> <p>Other measures for community health included:</p> <p>Accommodate all the project and contractor</p>	<p>The EIA did apply a broad definition of environment when assessing social and health impacts.</p> <p>Although the management interventions for HIV/AIDS focused on the community along the pipeline and the workforce, it was not addressed in the resettlement assessment</p> <p>Although it was recognised that there are limited medical facilities on</p>

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
		Salaam.	<p>of transmittable diseases such as venereal diseases like gonorrhoea, syphilis, HIV/AIDS, etc.</p> <p>2. Increased circulation of money in the areas may lead to increased prostitution leading to more sexual related diseases</p> <p>3. Depending on opportunities created, overcrowding may result in places like Songo Songo Island</p>	<p>staff at the project facilities on the project site</p> <p>Restrict movement or interaction of the contractor staff with the villagers</p> <p>Raise awareness of the villagers on the use of condoms which will be supplied by Songas and/or the contractor</p> <p>Provide free condoms to employees</p> <p>Use video displays to show the impact of HIV/AIDS to the islanders</p> <p>An HIV/AIDS Specialist was recommended to be included in the Songas Management Team.</p>	Songo Songo Island, the future action plans for the community development programmes did not include any health or HIV/AIDS component.
<b>Maji Ya Chumvi-Miritini Road Rehabilitation and Reconstruction Road</b>	EIA prepared in February 2001. Consultant not named on the EIA report	The Maji Ya Chumvi-Miritini Road is a section of the main Nairobi-Mombasa Road. The project involves improvement of the existing road network.	The EIA identified potentially HIV/AIDS related impacts through recognition of negative cultural influence with a resultant increase in promiscuity in the local community and enhanced accessibility of areas.	<p>Create awareness on HIV/AIDS and other related diseases and avail limited health care services</p> <p>An amount of 3 000 000 Kenyan Shillings was recommended to be set aside for HIV/AIDS awareness</p>	<p>The review of the socio-economic environment makes no mention of HIV/AIDS</p> <p>The recommendations for HIV/AIDS were limited to awareness raising.</p> <p>No social monitoring was recommended</p>

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
			<p>The site camps were identified as potential high transmission areas for HIV/AIDS</p>		
<p><b>Community Based Poverty Reduction Project</b></p>	<p>EIA prepared by O. Olaniran in May 2000</p>	<p>The project included a federal component for an overall framework strategy and state components involving community designed and implemented projects in Nigeria.</p>	<p>Only mention of HIV/AIDS was in the context of the positive impact of health centres but recognising the potential problem from waste disposal "if syringes used to take blood samples of an Acquired Immune Deficiency Syndrome (AIDS) patient were dumped on a rubbish heap, some ignorant careless children could pick them up and playing with them could accidentally pick or wound themselves resulting in contacting AIDS.</p>	<p>No recommended interventions and no monitoring of health impacts suggested.</p>	<p>The EIA focused almost exclusively on the biophysical environment.</p> <p>The potential impact associated with syringes is factually incorrect as it is unlikely that the HIV virus can survive for long outside the human body and the risk of HIV from waste dumps is small.</p>

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
			HIV/AIDS was not raised as a potential impact from construction projects.		
<b>Calub Gas Development Project</b>	EIA prepared by a team of consultants led by Luciano Borin in March 1993	The Calub Gas Development Project was proposed to extract and commercialise liquid petroleum products located at Calub in south-east Ethiopia.	No baseline data on HIV/AIDS is provided.  Recognition through one unsubstantiated statement that improved communication and commerce has the risk of spreading AIDS and other sexually transmitted diseases.	A recommendation was made for a Calub Community Development Fund to be set up and to invest in HIV/AIDS education.	The project has the potential to have significant impacts on the transmission of HIV through construction camps, opening up access to culturally isolated tribes and increase in trucking in the area. None of these impacts were properly assessed and any negative social impacts were followed by a statement of the positive social impacts in terms of jobs and services.
<b>Village Infrastructure Project</b>	EIA prepared by Technology Impro Associates Ltd, Tema Ghana in November 1996	The Village Infrastructure Project is aimed at developing basic sustainable village-level infrastructure including rural water, rural transport, and rural	No mention of HIV/AIDS in the health baseline information provided. HIV/AIDS not mentioned as a major health problem for rural communities	No health recommendations or guidelines put forward.	Project had potential to cause significant HIV/AIDS impacts through activities such as construction of infrastructure and improved transport networks.  Social impacts were considered very superficially and mainly related to

Name of project	EIA Details	Project description	Assessment of HIV/AIDS	Recommended management measures	Comments
		post-harvest infrastructure and a component on institutional strengthening.			road accidents.
<b>Mozambique National Water Development Project</b>	EIA prepared by NORAGRIC, Agricultural University of Norway in August 1997	The National Water Development Project was established to improve the management of water resources through rehabilitating and extending water supplies in five cities in Mozambique; improving rural and small town water and sanitation supply; and strengthening institutions for water resource management.	No assessment of potential HIV/AIDS impacts. Only health impact recognised was the reduction in water-borne diseases.	No management interventions recommended as HIV/AIDS was not recognised as a problem.	Although the project had the potential to increase HIV transmission through resettlement of people, induced development effects and movement of construction crews, these impacts were not raised in the EIA.

All the EIAs were for projects in Sub-Saharan Africa and contained an element of infrastructural development. The older EIAs such as the Mozambique National Water Development Project and the Village Infrastructure Project in Ghana did not assess HIV/AIDS impacts at all. The Calub Gas Development Project, the Maji Ya Chumvi-Miritini Road Rehabilitation and Reconstruction Road, the Community based poverty reduction project in Nigeria, and the Rural Water Supply Project in Tanzania all included a statement on HIV/AIDS. These reports although recognizing the potential for HIV/AIDS impacts, did not provide any evidence or discussion of the potential impacts. This reflects the superficial manner in which social issues are sometimes dealt with in EIA reports. In addition, all three projects recommended a standard and limited response of information, education and condom provision as the management intervention. Two projects, the Bujagali Hydropower Project and the Songa Songa Gas to Electricity Project included comprehensive assessments of the potential HIV/AIDS impacts of the development. The variability in the approaches was not directly related to the date of the report as some of the more comprehensive reports preceded the more superficial assessments. Due to the limited number of reports that are presented here, the author will not attempt to generalize the results however some conclusions can be drawn. It is apparent from the review that there is a great deal of variability in the manner in which HIV/AIDS impacts are assessed in the EIAs of development projects. For the most part, there is some recognition of the potential impacts but these are sometimes assessed in a superficial manner. This could be indicative of the lack of knowledge and expertise in the field of HIV/AIDS from the side of the consultant or could be due to a deeper unwillingness to deal with social issues such as HIV/AIDS where there is little quantitative data available. In seven of the nine cases, it is likely that the superficial assessment of HIV/AIDS impacts led to these impacts not being dealt with adequately in the decision-making process or the subsequent project design, if the project was approved.

Three EIA reports were considered in detail and these reviews were supported by field visits to the projects by the researcher. These are presented below.

#### **6.5.1. Lake Victoria Environmental Management Project Assessment and Management**

The World Bank is providing funding for a multi-country initiative to ensure the sustainable use of the natural resources in the Lake Victoria basin. The Lake Victoria Environmental Management Plan (LVEMP) has been developed to

implement activities in support of this goal. The main components of the project are Fisheries Research; Fisheries Management; Water Hyacinth Control; Water Quality and Ecosystem Management; Industrial and Municipal Waste Management; Land Use Management; Catchment Afforestation; Wetlands Management; National Secretariat; and support to Riparian Universities.

A sub-component of the fisheries research is to undertake socio economic studies and ultimately the incorporation of local communities/microprojects into fisheries management. Through this sub-component, HIV/AIDS and the health of fishing communities has been highlighted (Bukombi, 1998). As this is a very large project with multiple components in three countries, only one aspect has been selected for discussion in this thesis, viz socio-economic development of fisheries landing sites.

One landing site visited through the project was the Masese site which was considered to be representative of landing sites around the lake (Odongkara, 2000, pers.comm.). Masese is a landing site situated near the town of Jinja in Uganda. Fishing boats from the islands land on the undeveloped beach carrying cargo consisting mainly of fish, bananas and charcoal. The cargo is off loaded by hand and the fish is taken to a shed where it is weighed and sold. The settlement consists of several small restaurants, 3 bars, a lodge with 13 rooms and various other buildings. Almost all the structures are of an informal nature. Fishmongers come from Jinja and further afield to purchase the fish. There are no female fishers but some fishmongers are women. Women are also involved in processing, smoking fish and other aspects of fish handling.

The lodge is used by fishermen and fishmongers for overnight accommodation and for sexual liaisons. People from town also apparently use the area for clandestine relationships as they are not known locally. It is believed that people, particularly women, who have lost partners to HIV/AIDS and been ostracized from their communities migrate to such areas as they are not known and can start new lives without the stigma of the disease. Women working in bars and local restaurants are paid very low wages (as low as U Sh 1 000 a day) and also get left over food. Sometimes they get free accommodation and may use this to entertain men and may also rent out the room to others in order to supplement their meagre incomes.

There is a small health post run by one nursing sister. About 100 patients a month visit the health post. Although the sister diagnoses STIs, she is unable to treat these

patients as she has only penicillin and none of the other drugs required according to the Ugandan STI treatment guidelines. The only other antibiotic in the clinic is cotrimoxazole. Patients with symptoms of an STI are given prescriptions but almost none can afford the drugs and so remain untreated and infectious. Condoms are provided free when available from donors otherwise people buy them in the village. There is no presence of any HIV/AIDS information, education and communication (IEC) materials in the village and only a few posters in the clinic. According to the local official, people are apparently responsive to popular theatre activities.

A landing site such as Masese is clearly a potential hotspot for HIV transmission. The presence of a transitory and mobile population where some men have income (the fishermen after selling their catches) set in a relatively poor area increases the likelihood of sexual activity and the sale of sex. The fact that individuals with STIs cannot access adequate treatment worsens the situation as these people are at increased risk of transmitting and acquiring HIV infection. The World Bank-funded development planned for the landing site may lead to increased migration of people into the area, greater income inequalities as the fishing industry is improved, and greater pressure on local health services.

It is, therefore, safe to claim that if HIV/AIDS is not considered in the development of the landing sites, this project may exacerbate the transmission of HIV and other STIs. Conversely, if HIV/AIDS is taken into account in the planning and execution of the landing sites then this project may well be able to reduce HIV transmission and mitigate the negative impacts of HIV/AIDS.

There are a number of aspects to this project in which HIV/AIDS issues could have been considered in the EIA process:

- Potential direct negative impacts of the project itself.
- Opportunities for the project to reduce transmission of HIV.
- Opportunities for the project to identify those affected by HIV/AIDS.
- Opportunities for the project to mitigate the impacts of HIV/AIDS on people infected and affected by the epidemic.

When reviewing the EIA for the project as well as the stakeholder consultation documents, it became apparent that HIV/AIDS was not considered a priority for the

project. Although a study of reproductive health in landing sites showed that HIV/AIDS was a serious concern in these areas (Bukombi, 1998), HIV/AIDS was identified as a problem without further investigations as to the extent and significant of the impact of the project on the HIV/AIDS situation. In terms of the stakeholder consultation process, the Annual Stakeholder Workshop held from 26-28 October 1999 (NARO, 1999) considered fishermen's environment and their health but focused on schistosomiasis and malaria. It was recognized that health services were generally bad and there were HIV/AIDS programmes at only 7% of the landings. These findings were however not taken forward in any the recommendations in the health programme to deal with HIV/AIDS or other sexually transmitted infections. The environmental assessment and management process thus failed to adequately assess HIV/AIDS issues of the development.

#### ***6.5.2 Rural Water Supply and Sanitation Project (RWSSP) Environmental Impact Assessment***

The RWSSP was established with the goal to improve water supply, sanitation and hygiene conditions for the rural communities of Rufiji district, Uganda. The project was expected to take three years with a first phase of project promotion and community mobilization followed by on-site surveys and design of water supply schemes and finally implementation including construction of new schemes, rehabilitation and training of the rural community.

The nature of the project was such that it was bringing development into rural areas in a part of Uganda with high HIV/AIDS prevalence rates. The project design required a great deal of movement of people between areas and possibly the need for construction camps where larger water supply developments would take place. As such the EIA could have assessed the potential direct negative impacts of the project itself.

Upfront in the EIA report, the scope of the project was recognized to include a focus "on community health especially promotion of AIDS/HIV prevention among the rural people through awareness creation and campaigns" (Ako, 2001, pg v). As such the EIA could also have assessed the potential opportunities for the project to reduce transmission of HIV in the rural communities, opportunities for the project to identify those affected by HIV/AIDS and recommend opportunities for the project to mitigate the impacts of HIV/AIDS on people infected and affected by the epidemic.

The EIA report focused largely on the ecological aspects of the project. Although village baseline information was collected, HIV/AIDS was not mentioned at all but instead focused on water-borne diseases (Ako, 2001). Similarly, the description of the socio-economic environment in the report addressed health issues to the extent of noting that “all villages except two of them have at least one dispensary. However, lack of medicines, inadequate staff, and long distance to seek medical services is a major problem in most rural areas” (Ako, 2001, pg 37).

The recommended mitigation plan in the EIA report did recognize increased incidence of STD & HIV/AIDS due to the presence of a new construction workforce in the village and recommended awareness and education campaigns on STD and HIV to sensitize the local community.

HIV/AIDS was thus assessed in a very superficial manner in the EIA with a single statement of the problem and a standard response given to dealing with the issue. This was particularly surprising as the project had a clear goal of addressing HIV/AIDS amongst the rural population. In addition, HIV/AIDS issues were addressed in isolation from other aspects of the project. It was addressed as a stand-alone concern instead of being integrated with other components of the EIA such as the establishment of construction camps and the community mobilization activities.

### **6.5.3 Lower Kihansi Hydropower Project Environmental Management**

Based on findings from the Environmental Impact Assessment of the Lower Kihansi Hydropower Project (LKHP) that suggested that the project may contribute to the transmission of sexually transmitted diseases, including HIV, the Kihansi Public Health Project was established.

The Kihansi Public Health Project was a five-year project designed to monitor and mitigate public health impacts of the LKHP. The project adopted a holistic approach to health, including a focus on sexually transmitted diseases such as HIV. The intervention included behaviour change communication and health education, training of health personnel, social marketing of condoms, technical and material support to STD clinics, provision of counselling services, and provision of voluntary HIV testing services. The project aimed its interventions at a number of people in

the workforce, community and health-care personnel. The STD control programme was implemented in a total of 18 communities surrounding the project site.

Studies showed that sexual behaviour had changed in a favourable direction since the baseline studies. In a one-year period preceding a study in 1999, 73% had had only one sexual partner (as opposed to 60% in 1993). Condom use had also increased, especially among persons having more than one sex partner. Among persons who had had three or more partners in the previous 12 months, 78% had used a condom at least once (as opposed to 43% in 1993) and 61% had used a condom the last time they had sex. The knowledge about HIV had improved considerably; e.g. the proportion that could not mention any HIV transmission route decreased from 35 to 11% between 1993 and 1999 (Moen, 2001).

The prevalence of HIV had increased at a 50% slower rate in the communities surrounding the LKHP than in a comparable geographical control area outside the project area. In Kihansi, the prevalence had increased by 25% - from 8.03% to 10.0%-since 1995. In the control area, the corresponding increase was 50% - from 6.04% to 9.03%.

The case study from the Lower Kihansi Hydropower project represents an important example of the influence of assessment on the policy process. The findings of the assessment introduced a dimension of concern for social impacts that were translated into specific outputs relating to HIV/AIDS. In the long term, these outputs have had a measurable outcome in terms of reducing the spread of HIV/AIDS around the project site.

## **6.6 Conclusion**

The results of the interviews with stakeholders and the case studies provided valuable data against which to compare the theoretical understanding of EIA. It is evident from the interviews that many people are still influenced by the ecological paradigm and view EIA as a tool for technological adjustment. In some instances, EIA is seen as tool to legitimate projects and is merely a sign-off process whilst in other cases, EIA is a mechanism to internalize the environmental costs of development. In some cases EIA was seen as part of the policy discourse as a mechanism for greater stakeholder engagement on environmental matters. Most

dominant in people's thinking about EIA is the view that its primary focus is still on the biophysical environment. A few senior EIA practitioners recognized that EIA has expanded in terms of its purpose and content but generally people reverted to considering the process in terms of biophysical impact assessment. This view was reinforced by the fact that most EIA practitioners in the World Bank have natural science academic backgrounds and there are very few social specialists involved in reviewing developments in Africa.

This view was echoed in the country interviews in Ethiopia and Uganda. In these countries, the adoption of EIA from developed countries, with little modification for the local setting has meant that ecological modernisation thinking which has framed mainstream environmental management discourse in developed countries has been transferred to developing countries. In both Ethiopia and Uganda the government officials interviewed were interested in keeping up with the international standards in EIA. This raises questions about whether an international standard is possible when there is such diversity in the socio-economic and political contexts globally. In particular, it is evident that the conditions under which the ecological modernisation paradigm has developed, an enabling state, economic prosperity and a plural, inclusive society, do not exist in manner developing countries and it can therefore be argued that the thinking that has framed EIA practice is not valid in most developing countries.

A consequence of the ecological modernisation perspective is that social and health issues are often not prioritized in the EIA process in Africa despite the fact that these are some of the most pressing concerns on the continent. Although the policy frameworks for the World Bank, and the national governments of Ethiopia and Uganda do recognize social impacts in the EIA process, this is not always followed through in practice. This is evident from the fact that there were only two social specialists working on EIAs in Africa for the World Bank. In the countries themselves, there was little interaction between the environmental authorities and social and health departments. With respects to HIV/AIDS impacts, officials in the Environmental Protection Agency in Ethiopia and the National Environmental Management Authority in Uganda admitted that these impacts were not often considered and that their staff lacked the skilled to adequately assess such impacts.

Despite this discouraging response, the policy frameworks do offer an opportunity to introduce HIV/AIDS impacts into EIA due to the fact that they explicitly include social

and health impacts. In practice there is also willingness, albeit cautious, to recognize HIV/AIDS as valid impacts associated with development projects. The willingness to take HIV/AIDS seriously stems from a recognition of the magnitude of the pandemic in Africa and an acceptance that social justice is required to address the developmental impacts of HIV/AIDS. This view was most clearly articulated by participants of the investigative workshop once they had been capacitated to understand the relationship between development and HIV/AIDS.

The three case studies presented represent a range of approaches for addressing HIV/AIDS in EIA processes. The LVEMP is a typical example of most EIA reports that were evaluated where HIV/AIDS was not properly addressed. A field visit by the researcher revealed that HIV/AIDS was in fact a major issue for the landing sites but this was not recognized in the EIA. In particular, the nature of the public consultation process and the focus on the ecological environment in the title of the project meant that HIV/AIDS was not prioritized and thus received little attention in the assessment or management interventions. This case study represents an example of poor assessment which failed to consider the very likely impacts of the project on HIV/AIDS around landing sites.

The second case study of the RWSSP represents the situation in most EIA reports reviewed where HIV/AIDS was recognized as an issue but was dealt with in a superficial manner. It was evident from bias in the EIA report that the consultant was more au fait with the ecological environment and as a result, ecological issues were more rigorously assessed than social issues. The baseline survey of the health of the villages was presented in a superficial manner based on a field visit but little stakeholder engagement or collection of baseline data on HIV/AIDS or any other health concerns was undertaken. As a result, the finding that there would be an increase in HIV as a result of construction workforces was put forward with little substantiation. It could be argued that as a result of the lack of substance, this finding had less credibility than other findings that were substantiated by facts and data.

Of the three projects, the Kihansi project represents a success story where recognition of HIV/AIDS in the EIA was carried forward into action in the Management Plan. Monitoring and evaluation of the successful implementation of the management interventions revealed that the project has reduced HIV transmission in the area around the project. This project was a best practice example

of how the recognition of HIV/AIDS as a potential impact in the EIA led to management that has subsequently led to a greater awareness of HIV/AIDS and a reduced rate of HIV transmission in the workforce and the community around the project. Unfortunately, the Kihansi project is one of very few such success stories and the researcher was unable to find any other examples that showed the conclusive link between the EIA process and a project having a positive impact on HIV/AIDS.

In summary it is evident that the current approaches to integrating HIV/AIDS issues into EIA tends to be very variable. It would appear that the assessment of this issue takes place on an ad hoc basis and is dependent on the approach adopted by the consultant to both assessment and management. Most importantly, the Kihansi project showed that where a proper assessment is carried out, a project can have a very significant positive impact on HIV/AIDS. As there is a willingness from EIA practitioners to explore the assessment of HIV/AIDS impacts in the EIA process further, there is an opportunity to have an impact on EIA practice in Africa. Owens *et al* (2004) note that appraisal practices may in different and subtle ways secure legitimacy, influence outcomes and lead to the adjustment of policies. Owens *et al* (2004) further comments on the potential for practices of appraisal to contribute to a process of learning and, potentially, to modify the belief systems and behaviour of individuals and organisations over time.

Within this context it can be argued that by providing tools to empower EIA practitioners to address HIV/AIDS issues and thereby improving EIA practice, it may be possible to slowly change the discourse of EIA so that it becomes more inclusive and adopts a social justice approach. The following chapter describes a framework of assessing HIV/AIDS within the EIA process. The framework was developed through the research process using the knowledge gained through the interviews and the review of projects.

## 7. FRAMEWORK FOR INTEGRATING HIV/AIDS ISSUES INTO EIA

### 7.1 Introduction

It is recognized that HIV/AIDS is one of the most serious problems of the twenty-first century. It will be (if it is not already) the leading cause of death in adults and children in Africa. With this scenario in mind, it has become imperative to place HIV/AIDS very high on the development agenda. The results of this research have shown that EIA has been dominated by a technocratic, scientific approach which has tended to exclude social issues. The results of interviews with stakeholders in the field of EIA revealed that there is widespread acceptance that the EIA process can address HIV/AIDS more comprehensively and thus contribute to the fight against the pandemic. The case studies carried out through this research showed that HIV/AIDS issues are addressed in an ad hoc fashion, if at all. There is thus a need for a more rigorous approach to addressing HIV/AIDS in EIA.

HIV/AIDS has been used as the basis of the framework developed as opposed to other social or health issues, because of the magnitude of its impacts and the fact that it raises serious questions of social justice in development processes. This framework therefore focuses solely on HIV/AIDS within EA. This does not preclude a more holistic approach to social issues depending on the particular social context of each project.

This thesis strongly advocates a social justice approach to EIA practice, however, the author supports the view that the wholesale rejection of formal, evaluative techniques is unnecessary and that systematic and scientific treatment remain useful in many forms of enquiry (Owens *et al*, 2004). As such the framework proposed in this chapter seeks to work within the conventional EIA process but introduce new tools and approaches to introduce a justice dimension to the issues assessed and the assessment methods used in EIA. According to Owens *et al* (2004, pg 1953) "the most constructive way forward...is likely to involve a careful tailoring of different forms of appraisal [using technical and deliberative approaches] to specific problems and situations".

The proposed framework for integrating HIV/AIDS into the EIA process was developed through an assessment of current tools available through Health Impact

Assessment, Social Impact Assessment and HIV/AIDS monitoring and management. Despite weaknesses in the EIA process, it is recognized at the outset that the stages of the EIA process are sound and easily lend themselves to a consideration of HIV/AIDS. Although an established HIV/AIDS Impact Assessment process does not exist, the tools for assessing HIV/AIDS, management interventions, and monitoring and evaluation exist and are in use in the health sector. Various methods for assessing the impact of HIV/AIDS on society have been developed and applied by development agencies under the banner of HIV/AIDS mainstreaming. The purpose of mainstreaming is to ensure that HIV/AIDS is brought to the centre of the development agenda and resources are effectively mobilized at both the concept and operational levels of policies, programmes and strategies.

Some noteworthy frameworks for assessing HIV/AIDS impacts include the Early Warning Rapid Response System, UNDP's HIV/AIDS Impact Assessment Tool and the Europeans Union's tool for assessing the HIV/AIDS impacts of development projects.

The South East Asia HIV and Development Project, UNDP has developed an Early Warning Rapid Response System (EWRRS) to address HIV vulnerability caused by mobility related to development. The goal of the proposed EWRRS is "to detect socio-economic changes and development activities creating conditions of vulnerability leading to increasing the possible spread of HIV" (UNDP 2000). Following the detection, the EWRRS should then identify the most effective development interventions for reducing the emerging vulnerabilities.

The process uses a development-centered paradigm rather than a health-centered paradigm. The principles behind the EWRRS are valuable and any methodologies developed in the process could be used in EA. EWRRS differs from the EA approach as it is a stand-alone tool. It is suggested that the EWRRS will sit within the National AIDS Council. This will separate the process from the World Bank project development process and may discourage its use. The EWRRS is also focused on mobility of populations and this may be a limitation.

The UNDP HIV/AIDS Impact Assessment tool has been put together by the United Nations Development Programme (UNDP) Regional Bureau for Asia and the Pacific and the Asia-Pacific HIV Impact Research Team from Malaysia. The purpose of the HIV/AIDS Impact Assessment Tool (AIA) is to assist project designers to "take into

account the potential impact of HIV/AIDS and minimize the unintended impact that a development project might have on the transmission of HIV". The objectives of the team developing this tool are therefore similar to ours. However, the methodology of the proposed AIA draws heavily on socio-economic approaches and, in particular, social cost/benefit analyses. The result is that the AIA is highly quantitative and attempts to provide the user with a cost/benefit analysis of averting cases of HIV infection.

The European Unions Framework for assessing HIV/AIDS impacts of develop takes a strategic policy view of development initiatives at a national and sectoral level. A range of questions is used to take a project manager through a decision tree in order to understand potential HIV/AIDS impacts.

These three framework tools as well as the plethora of less packaged tools provide useful information for assessing and managing HIV/AIDS. However, none of the tools are legal requirements for development projects and are often only applied at the national level to policies, programmes and strategies only. The approach adopted in this thesis has been to draw on the learning from the available tools to build a practical framework that would apply to the assessment of HIV/AIDS impacts in EIA for development projects specifically. This is not dissimilar to approaches used to assess water and air quality in EIA which build on stand-alone tools developed for other purposes.

The same tools can be applied to strategic and project-level environmental assessments. In cases of projects that are already established, some of the tools can be used retrospectively or concurrently to carry out an assessment of HIV/AIDS impacts and develop management interventions. This section of this thesis presents recommendations developed by the researcher for a general framework and a few tools that could be used to bring HIV/AIDS issues into the EIA process.

## **7.2 Social justice as a driver to address HIV/AIDS in EIA**

Although consensus on the need to assess HIV/AIDS impacts through EIA was supported because of a number of practical considerations, a more fundamental question of justice underpinned some people's thinking. Denise Vaudaine, a Municipal Finance Specialist at the World Bank noted that "*most people see EA as*

*something which might cause extra burdens to projects. In terms of HIV/AIDS however, it is something different. It is an issue that everyone realizes they have to deal with. There is a humanitarian aspect which people relate to, which must be emphasized"* (Vaudaine, 23 May 2000).

This 'humanitarian aspect' relates strongly to people's recognition of the need for social justice. Smith (1997) recognized that an ethic of care is an important component of social justice. This includes a commitment to the vulnerable, the poor, or the worst-off. In Africa, the devastation of HIV/AIDS has meant that we need to take care of the vulnerable groups who are being most infected and affected by the epidemic. The recognition of the need for social justice may be the factor that drives people to support mainstreaming of HIV/AIDS in development projects and thus the integration of HIV/AIDS impact assessment into the EIA process (Ibanda, 09 February 2001).

The current environmental assessment and management discourse does not take into consideration issues of justice but rather focuses on a scientific and technical process that deals with defined, quantifiable and measurable impacts (Scott, Oelofse and Weaver, 2001). Within the ecological modernisation paradigm, issues of justice are less relevant because of the presence of economic prosperity, an enabling state and an inclusive society which ensures that there is equality between members of society. In developing countries however where social issues dominate the development agenda, ecological modernisation falls short.

The rapid spread of HIV/AIDS globally, which has been accelerated by causal factors that increase transmission, indicates that an inclusive society does not exist in most places. Many of the causal factors of HIV transmission which drive unsafe sexual behaviour are closely tied in with inequality and inequity in society whether it exists between men and women, different cultural and religious beliefs or economic circumstances (Appendix 1).

Introducing social justice in assessment and decision-making of projects is necessary to address the causal factors and thus a humanitarian approach is needed when assessing HIV/AIDS in EIA. In assessing impacts of development projects, one could apply O' Neill's view that we need to ask "to what extent the variable aspects of any arrangements that structure vulnerable lives are ones that could have been refused or renegotiated by those whom they actually constrain?" (O' Neill, cited in

Smith, 1997, pg 33). It is thus important to understand, from a social justice perspective, how the organization of development projects could be designed to take into consideration the needs of those most likely to be impacted upon by HIV/AIDS.

### **7.3 Principles for integration**

Through the case studies and visits to different countries, it was clear that each situation is different and thus requires a unique approach to successfully address HIV/AIDS issues. EIA is largely a linear process of following various steps and undertaking specialist studies to assess impacts of development. Literature has shown that whilst the tools may be available to assess all impacts, the manner in which the EIA is carried out often favours ecological issues over the softer social and health issues (Vanclay, 2000). Part of the difficulty rests with dealing with the human component of impact in a process which is better suited to facts and figures than emotions and perceptions, a problem reflective of ecological modernisation.

HIVAIDS is still a sensitive social issue where the bio-medical facts are often overshadowed by stigmatization, taboo and cultural influences. For any group of people seeking to tackle the issues of HIV/AIDS, it is essential that a sensitive, culturally acceptable approach is followed. As a result, although a tools-based framework is recommended, it is imperative that principles guide the assessment to ensure that it is carried out in an ethical manner. A number of principles have been developed to guide the EIA practitioner in making decisions about how to approach the assessment of HIV/AIDS. The development of these principles draws on work being carried out on HIV/AIDS in the workplace (N'Daba and Hodges-Aeberhard, 2002), social impact assessment approaches (Vanclay, 2000) and the researcher's own experiences in the field.

The principles below are founded within a social justice approach and are designed to guide integration and to ensure that the process is carried out properly.

- Broader economic and social drivers which lead to risky behaviour are as important as the immediate (or proximal) risk factors for HIV/AIDS in assessment
- Developments and communities are unique and have individual characteristics that must be recognized in assessment and management interventions

- Vulnerable groups such as women, orphans, the aged and people living with HIV/AIDS require special consideration in development opportunities and public participation processes
- HIV/AIDS is a sensitive issue and must be handled appropriately to avoid negative impacts that can include stigmatization and ostracisation of people living with HIV/AIDS, reduced uptake of voluntary counseling and testing (VCT) and the failure of well-intentioned interventions.
- Broad principles of efficiency and effectiveness are the basis of good EIA process
- Comprehensiveness and creativity is important in recommending HIV/AIDS management measures
- Integration with local initiatives will increase the success of interventions to prevent HIV transmission and to mitigate the impact
- Cultural sensitivity and acceptability to the local populations is fundamental in the assessment process and management plan

#### **7.4 Approach to integration of HIV/AIDS issues into the phases of EA**

Interviews with EIA practitioners and project managers revealed that many people were wary of being burdened with additional processes. John Roome (24 May, 2000) recommended that for reasons of efficiency and effectiveness, the appropriate level of assessment must be carried out for each situation. The approach recommended by the researcher highlights the need for appropriate action depending on the level of environmental impact. Thus HIV/AIDS issues should be introduced into EIA depending on the level of impact of the development project on HIV/AIDS prevalence. This is described in Figure 7 below. Some projects will require a detailed assessment (1), others will only require scoping and the integration of an HIV/AIDS component into the EMP (2), and still others may not require an HIV/AIDS component (3). In the case where projects do not necessarily require an HIV/AIDS management component because there is little impact of the development on HIV transmission, it is still valuable to consider if and how the project can contribute to dealing with HIV/AIDS in an area. Where no intervention is introduced, monitoring must be undertaken to assess whether the situation changes and interventions are necessary at a later stage.

The rest of the chapter will describe each phase of the EIA process and provide an outline of some of the supporting tools to address HIV/AIDS using a social justice approach. The selection of tools is not complete but provides some indication of the potential tools and how they can be used in EIA. These tools are necessary in light of the fact that the research has shown that many EIA practitioners or developers are not recognized HIV/AIDS specialists and thus need support in order to adequately assess HIV/AIDS in EIA (Solomon, 09 November 2000).

**Figure 7:** Decision-making pathways for assessing HIV/AIDS impacts in the EA process

## 7.5 Screening and Scoping

The purpose of the screening component of the EA is to provide the information and interpretation that will allow the developer to make an informed decision as to the degree of impact that the project may have on the implications of the development on HIV/AIDS in the area and hence which EA category the project should fall into.

In the African context, much of the information required in conducting an HIV/AIDS scoping exercise or impact assessment is likely to be either non-existent or of limited reliability. Therefore, in the absence of reliable empirical data, the consultant will have to make informed estimates based on what is available and what he/she observes (Table 10). Making a call on whether or not a particular project will impact on HIV transmission is not only determined by quantitative indicators but also involves an element of judgment about the degree of susceptibility and vulnerability of the impacted communities.

It is unlikely in the screening and scoping phases that there will be neither the time nor the resources to collect primary data and instead opportunistic use should be made of whatever data is available. The scoping study may however, highlight the need for the collection of such data during the subsequent impact assessment.

A concern raised by many EIA practitioners was their own lack of knowledge of HIV/AIDS issues which they felt would hinder their ability to pick-up potential impacts early on in the EIA process (Portia Segomelo, 23 February 2003). This highlighted a need to provide guidance for EIA practitioners in the early screening process in assessing potential HIV/AIDS impacts. During the initial screening exercise there are some characteristics of the existing environment and the proposed project that will guide the EA practitioner in estimating the potential impact on HIV transmission and HIV/AIDS management in the area. A number of questions have been developed that will aid in uncovering these characteristics (Table 11). By answering these key questions, the practitioner will be able to make an informed judgement on the likely impact of the development on the HIV/AIDS status of the community. This approach will also ensure that HIV/AIDS issues are fairly raised early on in the EIA process.

An important mechanism of ensuring that justice is introduced early in the EIA process is to ensure that the principle of participatory justice is applied during the scoping process. The scoping process is the open and interactive process of determining the major issues and probable impacts associated with a development. Scoping is mainly carried out through a stakeholder engagement process during which interested and affected parties are invited to make inputs on the development application. In order to ensure participatory justice surrounding potential HIV/AIDS impacts, it is important for to ensure that the stakeholder engagement is inclusive.

**Table 11: HIV/AIDS Screening Questions**

<b>Aspect</b>	<b>Questions</b>
<b>Site Description</b>	<ul style="list-style-type: none"> <li>• In broad terms describe the community – urban/rural, isolated/on a main road, village based/scattered homesteads, levels of poverty.</li> <li>• Describe the degree of social cohesion in the community, e.g. strong and homogeneous religious influences, traditional leadership structures, political instability, high crime levels</li> <li>• What is the response of the authorities in regard to commercial sex work activities?</li> </ul>
<b>Potential for the project to impact on HIV transmission</b>	<ul style="list-style-type: none"> <li>• How will the project impact on movement into and out of the area? Consider labour forces, job seekers, resettlements, formal and informal service providers moving in.</li> <li>• What proportion of labour will be sourced locally and what proportion will be brought in and housed locally?</li> <li>• What proportion of the imported labour will come with families?</li> <li>• What will be the gender breakdown of the local and imported labour force?</li> <li>• Is access to the area being substantially changed with this project or not?</li> <li>• Will the number of trucks into or through the project area increase?</li> </ul>
<b>Status of the HIV and STI epidemics</b>	<ul style="list-style-type: none"> <li>• What is the existing prevalence of HIV in the community? Data can be obtained from antenatal surveys in nearby clinics or other prevalence studies done in the region.</li> <li>• What stage is the epidemic in, i.e. is it an advanced, generalized epidemic that is spread throughout the community or is it still concentrated in “core groups” such as commercial sex workers and truck drivers?</li> <li>• How informed is the community about HIV and STDs?</li> <li>• What are the existing prevalence levels of STDs in the community?</li> <li>• What are the existing resources to manage STDs and HIV and how are they used in practice? Include public sector clinics, private sector, traditional healers, pharmacies.</li> <li>• What access does the community have to condoms and what are the usage patterns, e.g. free from clinics, social marketing, only commercial outlets?</li> <li>• Where are the “hot-spots: for HIV transmission, e.g. bars, clubs, truck stops, massage parlours, hotels with hourly rates, etc.?</li> <li>• What existing state, NGO and CBO initiatives are there in the area? What are they doing and what is the potential for collaboration?</li> </ul>

This can be done in the first instance by, using a range of techniques to get stakeholder inputs instead of simply a public meeting where people might feel uncomfortable to talk about HIV/AIDS. In the second instance, the practitioner should engage with a range of stakeholders about the project including women's groups, HIV/AIDS NGOs and people representing child-headed households. Finally, it is important for the EIA practitioner to adopt a sensitive approach when engaging with stakeholders and to create safe environments for people to express their views and concerns.

The compilation and interpretation of the information on the screening questions and the feedback from stakeholders should allow the following questions to be answered:

- 1) Is HIV/AIDS a significant problem within the community or among the proposed workforce at present or is it likely to become an important issue in the near to medium future?
- 2) Which sub-groups of the population are most susceptible and vulnerable?
- 3) Is the nature and extent of the proposed project likely to give rise to conditions that will enhance the transmission of HIV, e.g. labour camps, relocations, attraction of job seekers and commercial sex workers?
- 4) Does the severity of the potential impact and/or the lack of existing data require that an HIV/AIDS specialist study is conducted and if so what form should the study take and what should the TORs consist of?
- 5) What are the opportunities for the project to positively impact on HIV transmission and care either by working with other organizations or within the project itself?

Based on the responses to these questions, the EIA practitioner can then make a decision on which category the project falls into, i.e. the extent to which HIV/AIDS should be assessed (Figure 7). The matrix below was developed to illustrate diagrammatically how to categorise the project and the level of assessment required (Figure 8).

Following the initial scoping exercise, the EIA practitioner can then make an informed judgement on the level of risk associated with the project in terms of increasing the transmission of HIV and the level of risk associated with a location in terms of the social structures and the HIV/AIDS epidemic in the community. Using a low/high rating it is possible to decide whether the project needs no further consideration of HIV/AIDS, the development of an HIV/AIDS management plan or a full HIV/AIDS

specialist study as part of an Environmental Impact Assessment, followed by a Management Plan (Figure 7).

<b>HIV/AIDS Management Plan</b>	<b>Specialist Study of the HIV/AIDS issues and management plan</b>
<b>No HIV/AIDS intervention necessary</b>	<b>HIV/AIDS Management Plan</b>

**Figure 8:** Matrix to determine the level of assessment required for a particular project and location

#### **7.6 HIV/AIDS Specialist Study**

Where there is a potential for significant HIV/AIDS impacts to occur as a result of a development, it is necessary for a comprehensive specialist study to be carried out to assess the magnitude, severity and extent of the impact. This is necessary in terms of the principle of distributive justice where the fair allocation of costs and benefits are properly understood. Due to the fact that many of the HIV/AIDS impacts are

indirect, without a Specialist Study it may not be possible to understand the social costs that could be incurred by people affected by a development project.

The scope and content of an HIV/AIDS specialist study within the EIA will vary considerably depending on the particular project. In general, the resources committed to the assessment should be proportional to the potential impact of the development project on HIV transmission. Therefore, a large scale infrastructural project that involves relocating communities and importing large workforces, may require a comprehensive assessment involving conducting baseline studies, mathematical modeling of HIV infection rates and a comprehensive monitoring and evaluation programme. On the other hand, many smaller scale projects may skip a specialist study and go directly from the scoping phase to the incorporation of HIV/AIDS management interventions within an EMP. The detailed assessment of risks should be confined to potentially significant but unproven health hazards for which the need for mitigation measures is uncertain. It is not necessary to spend time justifying or conducting a health assessment because remedial measures are clearly needed (Birley, 1997). In determining whether an assessment is required, one should consider whether the assessment is effective and efficient. The assessment should only be carried out if it is likely to provide significant information (effective) and if that information is necessary to develop a management plan (efficient).

An HIV/AIDS specialist study should be carried out by specialist/s with expertise in epidemiology of HIV/AIDS or public health. The consultant will be responsible for answering four main questions:

- 1) Is HIV/AIDS relevant to the proposed project?
- 2) What risks do HIV/AIDS problems pose to the project?
- 3) What potential impact might the project have on transmission of HIV and AIDS?
- 4) What measures can be introduced to mitigate the negative impacts of HIV/AIDS on a development and vice versa?

As a result of the diversity of development projects and the varied social conditions in which they are implemented, there is no single, "off-the-shelf" tool for assessing HIV/AIDS impacts that can be used without modification in all settings. However, generic guidelines (Table 12), accompanied by checklists that are specifically designed for the development sector, have been developed and can be customized for each project by the project personnel.

**Table 12:** Generic steps in an HIV/AIDS Specialist Study

Step	Activity	Description
1	Describe the project	<p>This is an expansion of the information obtained in the scoping phase of the study. A detailed description of the proposed project needs to be obtained and, in particular, the following information:</p> <ol style="list-style-type: none"> <li>1) Timelines for the various phases of the project</li> <li>2) Anticipated number of employees required for each phase</li> <li>3) How employees will be sourced and housed</li> <li>4) Estimates of the type and number of people that are likely to move into the area because of the project. Such people will include job seekers, service providers, commercial sex workers, and induced development.</li> <li>5) Estimates of the number of people who may be relocated because of the project</li> </ol>
2	Describe the site and communities potentially affected by the project	<p>Expand on the scoping information. Include a discussion on the socio-economic status of the community and the commercial sex industry. This will provide a clear picture of the risk activities and vulnerable groups that must be emphasized in the management plan. The description of the site must also take into consideration cultural aspects and participation mechanisms. The eventual HIV/AIDS management must be undertaken in partnership with the local community and the site description will provide useful information on how best to get community ownership of the project.</p>
3	Describe the status of the HIV/AIDS and STD epidemics and how it is likely to change with the introduction of the project	<p>This section should consist of whatever quantitative data is available and be accompanied by a narrative report that interprets the data. It should cover both the communities likely to be impacted upon by the project and the communities from where workers will be sourced. Potential sources of data include surveillance data from antenatal surveys; routine data from nearby clinics on STD, HIV and AIDS case loads and the incidence of HIV related diseases such as TB, Kaposi sarcomas; and specific studies done in nearby areas.</p>

Step	Activity	Description
		<p>In many areas the required data will not be available or it may be very limited. A decision then has to be made on whether primary level data needs to be obtained. Many larger projects do conduct baseline studies on the health status of communities in order that impacts over time may be measured. Data on HIV and other STDs may be obtained from such community surveys.</p> <p>In large projects, the modelling of HIV/AIDS data may be used to forecast the potential impacts of the development project on HIV transmission, with and without an HIV/AIDS management plan.</p>
4	Recommend HIV/AIDS prevention/mitigation plans prior to initiation of project	All companies or organizations with a substantial stake in the project should ideally have either a specific HIV/AIDS or a chronic disease policy. Such policies need to conform to international norms and will set the framework within which HIV/AIDS issues will be handled. The policies are designed to reduce the "HIV risk environment". Recommendations should be made on designing the project to limit HIV transmission amongst the workforce and the local community.
5	HIV/AIDS Management Interventions and a plan for implementation	Although attempts to reduce the risk environment in the planning stage will do much to reduce the transmission of HIV and other STDs, such measures will not eradicate transmission. Therefore, a management plan needs to be devised which will run for the life of the project and which will be aimed at prevention, mitigating and managing these diseases and their impacts.

As with any other specialist study in the EIA process, it is up to the environmental assessment practitioner and specialists to determine the exact scope of the study and the extent of the investigation based on what would be most appropriate in the circumstances. The scoping process aids this decision by providing a sense of the significance of the likely impact and the assessment this warrants.

## 7.7 Interventions for HIV/AIDS management

Once the practitioner has a good understanding of the potential HIV/AIDS impacts associated with a project, it is then necessary to identify measures to mitigate and manage impacts. The principle of commutative justice requires that there is fundamental fairness in all agreements and exchanges between individuals and social groups (Blignaut and de Wit, 2004). In terms of this principle, a developer thus has a duty to ensure that those parties affected by a development experience the lowest reasonable impact and where impacts cannot be mitigated, there is adequate management and compensation for the costs of development.

Through the recommendations of the EIA report and in the Environmental Management Plan (EMP), mitigation and management measures are put forward. Targeted measures aimed at HIV prevention are primarily aimed at the proximal causes of HIV and STD transmission. Over the last two decades substantial evidence has been accumulated which supports the effectiveness of a number of prevention methods and these need to be prioritized and customized according to what will be most cost-effective in the particular setting (UNAIDS, 1997 and UNAIDS, 1998). Most important in selecting management interventions is to ensure their acceptability to the local community (Table 13).

**Table 13:** Factors to be considered in devising an HIV/AIDS management plan

A range of management interventions is possible but the choice of the most practical options can only be done through consultation with local stakeholders. Without local buy-in, the interventions will not be sustainable.

A number of commonly used interventions are described in Table 14. These were drawn out of the experiences in the countries visited as well as measures that had been used in some of the case studies.

**Table 14:** Potential interventions for HIV/AIDS mitigation and management

Specific HIV prevention activities	Specific HIV/AIDS management & mitigation activities
<ul style="list-style-type: none"> <li>• IEC activities</li> <li>• Peer education</li> <li>• Involving people living with HIV/AIDS</li> <li>• Condom provision</li> <li>• STD management</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary counseling and testing</li> <li>• Treatment of opportunistic infections</li> <li>• Prophylactic therapies</li> <li>• Antiretrovirals</li> </ul>

<ul style="list-style-type: none"> <li>• Integration of HIV/AIDS into thematic projects (e.g. emergency training)</li> </ul>	<ul style="list-style-type: none"> <li>• Home based care programmes</li> <li>• Medical Aid policies for workforce</li> </ul>
<p><b>Addressing “vulnerability” of the Workforce</b></p>	<p><b>Addressing “vulnerability” of the impacted community</b></p>
<ul style="list-style-type: none"> <li>• Adjust labour recruitment policies to: <ul style="list-style-type: none"> <li>○ Support better distribution across gender groups</li> <li>○ Promoting use of local labour</li> </ul> </li> <li>• Improve labour housing to accommodate families, integration into the community, and provide recreational facilities</li> <li>• Gender equity</li> <li>• Recreation provision</li> <li>• Remittance provision</li> <li>• Labour transport</li> </ul>	<ul style="list-style-type: none"> <li>• Outreach to sex workers</li> <li>• Resettlement policies</li> <li>• Access to STD services in the community</li> <li>• Capacity building in the community</li> <li>• Involvement of the community in IEC</li> <li>• Social marketing of condoms</li> </ul>

Whilst there may be no obligation on development projects to provide services to surrounding communities, this is frequently done for social responsibility reasons and because it may impact positively on the project itself.

## 7.8 Monitoring and evaluation

Although some people perceive the EIA process to end at the completion of the Environmental Management Plan, there is in fact still a responsibility of the developer to implement the plan. For this purpose, it is necessary to have monitoring and evaluation indicators which track the implementation of management measures and evaluate the success of these interventions. Monitoring and evaluation is particularly important as they provide evidence to hold developer and stakeholders accountable for not meeting their obligations. Where stakeholders do not uphold their obligations, retributive justice must be applied to ensure that the resources are provided to address HIV/AIDS impacts appropriately.

Monitoring and evaluation of HIV prevention and AIDS care programmes tracks what is being done and whether the programme is having the desired impact. The information obtained allows managers to calculate how to allocate resources to

achieve the best overall result. The extent and scope of an monitoring and evaluation programme must be proportional to the extent of the management plan.

Both monitoring and evaluation need to be built into the EA process from its beginning. In terms of integrating HIV/AIDS into EA, indicators can be used to measure the success of the implementation of the EA and its management plans, as well as the success of the integration itself. A monitoring and evaluation system can be developed following the steps below (Figure 9).

**Figure 9:** Basic steps in developing a monitoring system

A monitoring and evaluation system may fail if there is irregular and incomplete recording and reporting; staff are not properly trained; the purpose of the data collection is not clear and feedback is not provided; and inappropriate indicators and unmeasurable objectives are chosen. Table 15 lists some of the indicators that can be used to monitor HIV/AIDS. The indicator list was developed by drawing on national-level HIV/AIDS monitoring indicators (Uganda HIV/AIDS Commission, 2000), project monitoring indicators, inputs from interviewees (Jean-Roger Mercier, 26 May 2000 and Peter Okwero, 31 October 2001) and personal experience of the researcher.

**Table 15:** Indicators for HIV/AIDS monitoring and evaluation

<p><b>Input</b></p> <p>Amount of resources received from the project for HIV/AIDS work in and around the project site</p> <p>Amount of resources contributed by the community for HIV/AIDS work in and around the project site</p> <p>Amount of resources contributed from other sources (other projects, donor agencies, government, NGO's) for HIV/AIDS work in and around the project site</p> <p>Number of trained supervisors, availability of checklists, vehicles and field allowance</p> <p>Number of staff committed to HIV prevention and AIDS activities</p>	<p><b>Output</b></p> <p>Number of training sessions held, number and type of participants, types of sessions on e.g. HIV prevention education, counseling, coping with AIDS</p> <p>Number of campaigns held and number of people reached by the campaigns</p> <p>Number of condoms distributed to workforce, community groups, bars, health facilities</p> <p>Number and percent of establishments with condoms available throughout the year</p> <p>Number of AIDS action committees in community</p> <p>Number of people counseled on HIV/AIDS</p> <p>Number of HIV tests done</p> <p>Availability of syndromic treatment for STD's in surrounding clinics</p>
<p><b>Impact</b></p> <p>Change in HIV sero-prevalence in target groups</p> <p>Morbidity and mortality data</p> <p>Empowerment of vulnerable groups in the project area</p> <p>Percent of adults reporting STDs</p> <p>Number of STD cases seen at health clinics</p> <p>Number of schoolgirl pregnancies</p> <p>Productivity data</p> <p>Impacts on worker benefits</p>	<p><b>Effect</b></p> <p>Percent of adults (15-49 years) knowing sexual transmission route of AIDS</p> <p>Percent of adults knowing that a healthy person can carry HIV for at least 5 years</p> <p>Percent of adults who say they have changed their sexual behaviour since they have heard of AIDS</p> <p>Percent of adults who consider condoms as an acceptable method of STD/HIV prevention</p>
<p><b>Process</b></p> <p>Number of EAs that have addressed HIV/AIDS</p> <p>Number of countries that have integrated HIV/AIDS into their own EA processes</p> <p>Number of community representatives actively participating in and contributing to the programme</p> <p>Number of persons receiving capacity building through the project</p>	

## 7.9 Conclusion

The tools presented provide a guide for EIA practitioners in assessing HIV/AIDS impacts of development projects but also support decision-makers when reviewing EIA reports. A summary of the roles and responsibilities along the various stages of the EIA process is presented in Appendix 5. In many cases the materials provided represent a selection of the available tools that exist and it is up to the consultant to draw on the appropriate resources. In all cases, a justice approach must be applied to ensure that the least disadvantaged are not made worse off by the project activities.

The framework presented is grounded in the logic and methodological approach of EIA to allow for integrated appraisal to take place. However a social justice approach is implicit through the process to ensure that social issues such as HIV/AIDS are brought to the fore in the assessment. As it is often difficult to quantitatively assess social issues, the framework recommends both qualitative and quantitative approaches to assessing HIV/AIDS. The modification of the EIA process involves re-framing how we think about the process to explicitly incorporate HIV/AIDS, how we run the process so that it is grounded in principles of justice as well as using quantitative scientific methods in HIV/AIDS Specialist Studies.

By taking special cognizance of potential HIV/AIDS impacts throughout the EIA process, the EIA practitioner can be assured that the process applied is rigorous and just, even if the outcomes are not.

## 8. CONCLUSION

Chapter 6 has presented the results of investigations into the development paradigm within which EIA has developed, reasons for the resistance to the integration of HIV/AIDS into EIA, whether there is a need for environmental management to consider HIV/AIDS and finally tested the perceived weaknesses of EIA in addressing HIV/AIDS through case studies. The results of the investigations are summarized below.

### 8.1 The current environmental management discourse

The environmental assessment and management discourse which dominates currently was tested through investigating what people perceive to be the purpose and function of EIA. Some people view EIA as a “rubber stamping” exercise necessary to obtain approval for a project to go ahead. These people did not appreciate the value of EIA in affecting change to a project so that it has fewer negative impacts. On the other extreme, some people see EIA as a tool to promote sustainable development. Within this context, EIA is seen as an embracing process that can address social, economic and ecological issues in an integrated assessment. The majority of people viewed EIA as a process developed to assess the ecological impacts of development. Although some of these people recognized that social issues were part of EIA, they still reverted back to the belief that the fundamental purpose of EIA is about ecological impacts and social aspects are merely add-ons.

The range of responses represented a spectrum from viewing EIA as a technical process to be followed in development approval through to a sustainable development perspective. These views represent different paradigms through which the respondents viewed development. The former viewpoint is reminiscent of the industrial era prior to the recognition of environmental limits whilst the latter viewpoint is a more holistic approach articulated by the sustainable development paradigm. Between these two extremes, the most commonly held view is one driven by the need to understand and quantify the relationship between development and the ecological environment. This view is reflective of an ecological modernisation approach. EIA within this context is seen as a technical process that seeks

quantifiable data on the impacts of development on the ecological environment in order to develop technological solutions to mitigate these impacts.

Whilst the theory has shown that the ecological modernisation paradigm is most prevalent in developed countries, the transfer of EIA knowledge and practice from developed countries to developing countries has meant that the inherent discourse of ecological modernisation has also been transferred to EIA in developing countries (Oelofse *et al*, 2006).

This is most apparent when considering the manner in which social issues are addressed in EIA. Within an ecological modernisation paradigm, little attention is paid to social issues due to the recognition that these issues are adequately dealt with through the necessary conditions of an enabling state, economic prosperity and an inclusive society. As a result of this perception, EIA has developed with a focus on ecological issues. This is articulated in the expertise of the people involved in EIA, the imbalance in weighting qualitative social data with quantitative ecological data and the technical and limited stakeholder engagement processes that are carried. However the necessary conditions are not present in the developing world context which raises problems in the application of EIA in developing countries (Blowers and Pain, 1999).

## **8.2 The need to address HIV/AIDS in environmental assessment and management**

In developing countries where social issues often dominate the development agenda, the lack of focus on social issues limits the effectiveness of EIA processes in providing useful information for decision-making. Particularly in Africa, social issues such as HIV/AIDS threaten development and as a result should not be ignored in any process which seeks to provide an accurate assessment of the impacts of a development. Due to the dominant paradigm of ecological modernisation, there is still a tendency to ignore issues such as HIV/AIDS in EIA.

Interviews with stakeholders revealed that there is a great hesitancy to assess HIV/AIDS issues in EIA. This response exists for a number of reasons including a belief that HIV/AIDS is a health issue, a concern that EIA will shift away from its primary purpose of assessing ecological impacts as well as lack of knowledge on the

side of practitioners to deal with HIV/AIDS. These views are in keeping with the paradigm of ecological modernisation and within this worldview, HIV/AIDS should be left out of the environmental assessment and management process.

However, there is a school of thought that recognizes the responsibility of EIA to address HIV/AIDS as a potential obstacle to sustainable development. These respondents felt strongly that EIA would be a good vehicle to introduce HIV/AIDS impact assessment to development proposals without burdening the project with additional processes.

Stakeholders who were presented with the questions of whether HIV/AIDS should be addressed in EIA at a workshop in South Africa also tended to have the view that EIA was not the appropriate mechanism to address HIV/AIDS impacts. However, when a social justice approach was put forward to considering the role of EIA in development decision-making, there was unanimous agreement that there is a need to address HIV/AIDS impacts in EIA.

These varying responses clearly indicate that within the current environmental management discourse of ecological modernisation, it would be difficult to ensure the HIV/AIDS impacts are adequately raised in assessments of development. However by taking a sustainable development perspective and incorporating social justice concerns, there is a strong motivation for addressing HIV/AIDS impacts in EIA. As the literature has shown, increased transmission of HIV is a real impact of development projects and therefore it would seem that a new discourse is necessary for EIA to be truly applicable to the developing country context. Social justice forms a useful alternative to thinking about impacts as it allows the practitioner to consider the socio-economic and cultural inequities that influence the spread of HIV. In a world where the global community has established the Millenium Development Goals and signed the Johannesburg Plan of Implementation, social justice is a legitimate and necessary discourse if we are to move towards sustainable development.

### **8.3 Ability of current tools to assess HIV/AIDS**

In moving from an analysis of the underlying paradigms of environmental management to the practical realities of EIA application, a review was carried out of how HIV/AIDS issues have been addressed in past EIAs. The investigation revealed

that many EIAs do not consider HIV/AIDS impacts. In many of the EIAs reviewed, there was a general bias towards comprehensive reporting on ecological issues and limited reporting of social issues. This may be because these impacts are not considered to be part of the scope of the EIA or because the consultants lack the knowledge to assess HIV/AIDS impacts effectively.

In some EIAs, HIV/AIDS was raised as an issue but was dealt with in a superficial manner. One or two sentences were included in the description of potential impacts and the recommendations would include a need for HIV/AIDS awareness raising and condom provision amongst the workforce and community. These statements were not supported with data or a clear argument and this may lead to a perception that the impact is less significant than it actually is in reality. On the positive side however, some EIAs were found which addressed HIV/AIDS in a comprehensive manner such as the Lesotho Highlands Water Scheme and the Chad-Cameroon Pipeline. The Kihansi project stands out as an example of a project where the findings of the EIA were taken forward into management that ultimately led to a reduction in HIV transmission in the area around the project.

The review of EIA reports and case studies revealed that HIV/AIDS issues are addressed in an ad hoc manner in the process. There is a great deal of variability in how the issues are captured and assessed in EIA reports. This may lead to HIV/AIDS issues not being properly managed in development projects. In addition, it would appear that in cases where HIV/AIDS is assessed, there is a lack of uniformity of standards in the components that are considered in the project design and local community. Project-based EIA appraisals have often tended to emphasise the biological and physical environmental effects of development, more so than the social effects- and in this there has been considerable confusion foisted on developing countries depending on which developed country has had the most influence on the EIA processes there – with a narrow biophysical definition of ‘environment’ adopted by some European countries (for example, the Netherlands and the United Kingdom) but a broader biophysical and socio-cultural definition of the term adopted by others (such as Australia) (Brown, 2000, pg 38). The success stories do however suggest that the EIA process does lend itself well to the assessment of HIV/AIDS issues.

Recognizing that the developing country context cannot provide the necessary conditions for ecological modernisation theory to be applied, one must consider a

different discourse for EIA in developing countries. The need for sustainable development has been articulated by the international community and the Millennium Development Goals have articulated a need for increasing social justice in order to move towards sustainable development. It is thus argued that social justice be considered as an alternative discourse for environmental assessment and management.

Taking a social justice approach, the motivations for addressing HIV/AIDS in EIA are easily established and received support from stakeholders when tested. Applying this in practice however is not something that has occurred on a regular basis. It would thus appear that in order to ensure proper integration of HIV/AIDS issues into EIA, a uniform process and more rigorous tools are needed.

#### **8.4 A framework for assessing HIV/AIDS in EIA**

“The need for closer integration between environmental assessment and economic and social appraisal in the development process is widely recognised however the practice is weak (Lee and Kirkpatrick, 2000, pg 1). The framework proposed for addressing HIV/AIDS impacts in the EIA process came about as a result of the need identified by stakeholders for guidance on how to undertake the process. Most interviewees recognized that HIV/AIDS was a valid impact to be assessed in the EIA process but were unsure how to go about it. The framework presented works from the premise that the principles of justice, namely, participatory; commutative; distributive; contributive; and retributive, can be upheld by building appropriate actions into the EIA process. At a broader level it is also put forward that the application of the framework presented in chapter 7 may serve to engender a more fundamental reframing of EIA practice. Introducing new principles, engagement processes and tools in the conventional EIA process may over time result in “double-loop learning” (Owens *et al*, 2004) which will eventually challenge the status quo as participants accept new facts and change their beliefs regarding the purpose of EIA. This could contribute to greater acceptance of social issues in EIA and a better assessment of qualitative impacts in the process.

## 8.5 Enhancing EIAs contribution to sustainable development in Africa

Additionally, Cashmore *et al* (2004, pg 306) recognize that EIA promotes sustainable development in “multifarious ways through an indirect influence on environmental management; its educative and stimulative role; promoting enhanced stakeholder involvement in environmental decision-making; increasing transparency and accountability; changing society’s expectations of democracy and development; and the development of science and scientific methods”. Recognising the role of EIA as an agent of change, a response to the HIV/AIDS pandemic in Africa is enhanced through the same ‘multifarious’ ways. For example, the EIA process can be used to:

- Educate people on the potential risks associated with development projects and stimulate appropriate mitigation measures being put in place to reduce the risks
- An appropriate engagement process will attract vulnerable, and largely ignored stakeholder groups, such as women and the poor interact with the EIA process.
- There will be greater accountability in society at large for the creation of socio-economic drivers that lead vulnerable people to unsafe sexual practices.
- Improvement of scientific methods in assessing HIV/AIDS and managing its impact through policy, social, behavioural and medical responses.

This could lead to a greater focus on social issues and extending the policy debate on HIV/AIDS as a development issue.

## 8.6 Reframing EIA practice

Drawing together the findings of both the literature and the research, it is evident that there is a problem with the mainstream environmental management discourse, especially in its application in Africa. This is clearly reflected in the difficulties experience in rigorously assessing HIV/AIDS impacts of development projects. Whilst the policy framework for EIA broadly encompasses social and health issues, it is evident that the practice is closely tied to its positivistic and technocratic history.

The situation however is not irredeemable as it is evident from both interviews and case studies that there is not an outright denial of the validity of assessing HIV/AIDS impacts in EIA. Some of the case study material shows that there are EIA practitioners that have recognized the potential HIV/AIDS threat and tailored EIA processes to address these impacts properly. These case studies seem to be few and far between and this begs the question of why, on a continent with such serious

social issues, the EIA process still continues to maintain a biophysical focus in assessment? Christoff (1999, pg 496) argues that "it is critical to make explicit the normative principles of social justice upon which practice is predicated. The challenge is to replace the mainstream principles of technical and institutional efficiency associated with weak sustainability with the more democratic and socially oriented principles of strong sustainability". There is thus a need to challenge EIA practice and reframe the process in the context of social justice and strong sustainability.

Laws and Rein (2003) provide an understanding of the problems in achieving this through an analysis of the Green Heart frame in the Netherlands. In this particular case, the frame of the Green Heart which depicts the less developed green region in the urban ring has found widespread favour. Critics of the frame have been unable to displace this frame and Laws and Rein (2003, pg 179) argue that the frame remains dominant because "frames become institutionalized in habits of thought and action, in practices". In a similar way, the framing of EIA as a tool for assessing biophysical impacts has become institutionalized and it is difficult to displace this frame as the practice, which has been founded on ecological modernisation thinking, has been adopted internationally. Some level of reflexive analysis has taken place in EIA with the recognition of some authors of the contribution of the tool to sustainable development. This however is not widespread and attempts to deal with doubts regarding the assessment of social impacts are often done in a superficial manner.

The issue of HIV/AIDS provides an interesting challenge to the dominant frame of EIA and can be likened in some ways to the controversy surrounding the Love Canal in the United States. Pollution impacts from toxic waste dumped at the Love Canal led to increasing doubts and uncertainty about environmental management in the country (Laws and Rein, 2003). Conflicts arose between public officials and communities in trying to reconcile the different ways in which the problem was experienced. Over time, on-going protests by the community began to challenge not just individual proposals but the policy frame itself (Laws and Rein, 2003, pg 190). In a similar way, communities are increasingly concerned about the social and environmental costs they carry for development projects in Africa. The magnitude of the HIV/AIDS pandemic and its far-reaching development impacts has raised doubts about our current understanding of development progress. Organisations such as the World Bank have to rethink their policies and HIV/AIDS mainstreaming has become an acceptance policy approach.

Mainstreaming HIV/AIDS issues in EIA is not a simple process because of the stability of the frame that has prevented a critique of EIA's purpose and scope. It can be argued that ad hoc adjustments have occurred in the EIA process as evidenced by the Kihansi Hydropower Project but often these actions simply abate the challenges in order to maintain the continuity of beliefs (Laws and Rein, 2003). However, HIV/AIDS introduces serious doubt about the ability of the EIA process to appropriately consider social impacts and this moment of doubt could be the turning point when the system is open to new insights, ideas and behaviour (Laws and Rein, 2003). The nature of the HIV/AIDS impact is such that it has triggered a global response with high levels of commitment and strong leadership. These factors may be critical to reframing EIA practice as there is constant questioning of the status quo.

Ultimately, development is meant to improve the quality of human life and EIA, as a tool in this process, should always be undertaken with this fundamental purpose in mind. HIV/AIDS is having a devastating impact on Africa and demands action on all fronts. Environmental practice can no longer be seen to operate in isolation of this context. There is thus an urgent need for the practice of EIA to give recognition to the fact that development in Africa can only be successful if we address the HIV/AIDS pandemic in all aspects of development.

## 9. REFERENCES

Ackoff R. (1995) Whole-ing" the parts and righting the wrongs. *Systems Research*, 12 (1), pg 43-46.

Ako A. M. L. (2001) *Environmental Assessment (EA) Report for Rural Water Supply and Sanitation Project (RWSSP): Rufiji District*. Prepared for the United Republic of Tanzania, Ministry of Water & Livestock Development, Serviceplan Ltd, Dar Es Salaam

Annan K. (2000) Address to the United Nations Security Council by UN Secretary-General, 10 January 2000, New York

Ashton P. and Ramasar V. (2001) Water and HIV/AIDS: Some strategic considerations in southern Africa. In: Turton A.R. & Henwood R. (eds) *Hydropolitics in the Developing World: A Southern African Perspective*. African Water Issues Unit and International Water Management Institute Pretoria

Barnett T. and Whiteside A. (2002) *AIDS in the Twenty-First Century: Disease and Globalization*. Palgrave Macmillian, New York

Barrow C. J. (1997) *Environmental and Social Impact Assessment: An Introduction*. Arnold, London

Bartlett R. V. and Kurian P.A. (1999) The theory of environmental impact assessment: implicit models of policy making. *Policy and Politics*, 27, pg 415-434

Beanlands G. E. and Duinker P.N. (1983) *An Ecological Framework for Environmental Impact Assessment in Canada*. Institute for Resource and Environmental Studies, Dalhousie University, Nova Scotia, Canada.

Beattie R. B. (1995) Everything you already know about EIA (but don't often admit). *Environmental Impact Assessment Review*, 15(2), pg 109-114

Beck U. (1995) *Ecological Politics in an Age of Risk*. Polity Press, Germany

Bekhechi M. A. and Mercier J. (2002) *The Legal and Regulatory Framework for Environmental Impact Assessment*. World Bank, Washington

Bigg T. (2004) *Survival for a Small Planet: The Sustainable Development Agenda*. Earthscan, London

Bingham C. (2000) *The Environmental and Social Review of World Bank-Financed Activities in Africa: A survival guide for operational staff*. Draft internal World Bank document

Blignaut J. N. and de Wit M. P. (2004) *Sustainable Options: Economic development lessons from applied environmental resource economics in South Africa*. University of Cape Town Press, Cape Town

Birley M. (1997) *Environmental Assessment Sourcebook Update: Health Aspects of Environmental Assessment*. World Bank, Washington D.C.

Blowers A. (2000) Ecological and political modernisation: The challenge for planning. *Town Planning Review*, 71(4), pg371-393

Blowers A. and Pain K. (2001) The unsustainable city? In: Pile S., Brook C. and Mooney G. (eds) *Unruly Cities? Order/Disorder*. Routledge, New York

BMT Cordah Limited (2002) *Lagos Urban Transport Project: Environmental Impact Assessment*. Prepared for the Federal Republic of Nigeria, Government of Lagos State

Borin L. (1993) *Ethiopia Calub Gas Development Project: Environmental Assessment*. Ethiopia

Brown, A.L. (2000) Integrating crosscutting issues in the environmental assessment of development assistance projects, In Lee, N. and C. Kirkpatrick (eds), *Sustainable Development and Integrated Appraisal in a Developing World*, Edward Elgar, Cheltenham, pg 34-45

Bukombi S. (1998) *Baseline survey on some aspects of the reproductive health in landing sites and plantations workers' camps communities in Uganda*. Ministry of

Agriculture, Animal Industry and Fisheries and Ministry of Gender, Labour and Social development, Uganda

Burdge R. (2002) Why is social impact assessment the orphan of the assessment process? *Impact Assessment and Project Appraisal*, 20(1), pg 3-9

Burdge R. and Vanclay F. (1996) Social impact assessment: a contribution to the state of the art series. *Impact Assessment*, 14(1), pg 59-86.

Buttel F. H. (2000) Ecological modernization as social theory. *Geoforum*, 31(1), pg 57-65

CADRE (2000) *The Economic Impact of HIV/AIDS on South Africa and its Implications for Governance: A literature review*. Prepared on behalf of USAID through the Joint Centre for Political and Economic Studies, Pretoria, South Africa

Cashmore M. (2004) The role of science in environmental impact assessment: process and procedures versus purpose in the development of theory. *Environmental Impact Assessment Review*, 24(4), pg 403-426

Cashmore M., Gwilliam R., Morgan, R., Cobb D., and A. Bond. (2004) The interminable issue of effectiveness: substantive purposes, outcomes and research challenges in the advancement of environmental impact assessment theory. *Impact Assessment and Project Appraisal*, 22(4), pg 295-310

Castells M. (2000) *The Power of Identity*. Blackwell, Massachusetts

Cernea M.M. (1993) *Sociologists in a Development Agency: Experiences from the World Bank*. World Bank: Environment Department, Washington D.C.

Christoff P. (1996) Ecological modernisation, ecological modernities. *Ecological Politics*, 5(3), pg 476-500

Clark B. (1983) The aims and objectives of environmental impact assessment. In: PADC, EIA and Planning Unit (eds). *Environmental Impact Assessment*. Martinus Nijhoff: The Hague, pg 3-11.

Cohen M. (1998) Science and the environment: Assessing cultural capacity for ecological modernization. *Public Understanding Science*, 7, pg 149–167.

Commission for Africa (2005) *Our Common Interest: Report of the Commission for Africa*. Commission for Africa

Dramé M. (2000) GTZ/RAPA's multisectoral approach in West Africa. *Sexual Health Exchange*, 2000/3 pg 9-10.

Dryzek J. S. (1997) *The Politics of the Earth: Environmental Discourses*. Oxford University Press, Oxford

ESG International and WS Atkins (2001) *Bujagali Hydropower Project: Environmental Impact Assessment Report*. Report prepared for AES Nile Power, Canada

Fisher D. R. and Freudenburg W.R. (2001) Ecological Modernization and Its Critics: Assessing the Past and Looking Toward the Future. *Society and Natural Resources*, 14(8), pg 701-709

Flowerdew R. and Martin D. (1997) *Methods in Human Geography: A guide for students doing a research project*. Longman Limited, Essex.

Finsterbusch K. (1980) *Understanding Social Impacts: Assessing the Effects of Public Projects*. Sage, California

Finsterbusch K. (1995) In praise of SIA –A personal review of the field of social impact assessment: feasibility, justification, history, methods, issues. *Impact Assessment*, 13(3), pages 229-252

Finsterbusch K, Ingersol J. and Llewellyn L. (eds) (1990) *Methods for Social Analysis in Developing Countries*. Westview Press, Boulder

Fuggle R. (2004) *Values and Theory in Impact Assessment*, Presidential Address, International Association for Impact Assessment Annual General Meeting, Vancouver, 29 April 2004

George C. (1999) Incorporating sustainable development in EIA. *EIA Newsletter 18*, The EIA Centre, University of Manchester

Giddens A. (1994) *Beyond Left and Right: The Future of Radical Politics*. Polity, Cambridge.

Glasbergen P. (2002) The question of environmental governance. In: Glasbergen P. (ed) *Co-operative Environmental Governance: Public-Private Agreements as a Policy Strategy*, Kluwer Academic Publishers, Dordrecht

Goodland R. (2000) *Social and environmental assessment to promote sustainability. An informal view from the World Bank. Environment Department Papers no 74*, World Bank, Washington

Goodland R. and Mercier J. (1999) *The Evolution of Environmental Assessment in the World Bank: from "Approval" to Results*. World Bank, Environmental Management Series

Hajer M. (1995) *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford University Press, Oxford

Hajer M. and Kesselring S. (1999) Democracy in a risk society? Learning from the new politics of mobility in Munich. *Environmental Politics*, 8(3), pg 1-23

Hannigan J. A. (1995) *Environmental Sociology: A Social Constructionist Perspective*, Routledge, London

Harvey D. (1973) *Social Justice and the City*. Edward Arnold, London

Harvey D. (1996) *Justice, Nature and the Geography of Difference*. Basil Blackwell, Oxford

HBT AGRA Limited, Norplan and ESG International (2000) *Songo Songo Gas to Electricity Project: Environmental and Social Assessments and Management Plan*. Prepared for Songas, Tanzania

Hughes R. and Dalal-Clayton B. (1998) Environmental Assessment in Developing Countries. *EIA Newsletter 17*, The EIA Centre, University of Manchester

Hunter S. (2003) *Who Cares? AIDS in Africa*. Palgrave Macmillan, New York

Jackson H. (2002) *AIDS in Africa: Continent in Crisis*. SAfAIDS, Zimbabwe

Kemm J. (2003) Perspectives on health impact assessment. *Bulletin of the World Health Organisation*, 81(6), pg 387, Geneva, Switzerland

Kirkpatrick C. and Lee N. (1999) Special Issue: Integrated appraisal and decision-making. *Environmental Impact Assessment Review* 19, pg 227-232

Kwiatkowski R. E. and Ooi M. (2003) Integrated environmental impact assessment: a Canadian example. *Bulletin of the World Health Organisation*, 81(6), pg 434-438

Laga M., De Cock K., Kaleeba N., Mboup S. and Tarantola D. (1997) HIV/AIDS in Africa: the second decade and beyond. *AIDS*, 11 (suppl B): S1-S3.

Laws D. and Rein M. (2003) Reframing practice In: Hajer M. A. and Wagenaar H. (eds) *Deliberative Policy Analysis: Understanding Governance in the Network Society*. Cambridge University Press, Cambridge, pg 172- 206.

Lee N. and George C. (2000) *Environmental Assessment in Developing and Transitional Countries*. Wiley, Chichester

Lee, N. and C. Kirkpatrick (eds) (2000) *Sustainable Development and Integrated Appraisal in a Developing World*, Edward Elgar, Cheltenham

loveLife (2001) *Impending Catastrophe Revisited: An update on the HIV/AIDS epidemic in South Africa*. Henry J Kaiser Foundation, Parklands South Africa

Low N. and Gleeson B. (1998) *Justice, Society and Nature: An exploration of political ecology*. Routledge, London.

Lundqvist L. J. (2000) Capacity-building or social construction? Explaining Sweden's shift towards ecological modernization. *Geoforum*, 31(1), pg 21-32

Mbeki T. (2001) Presidential speech to the joint sitting of the National Assembly and the National Council of Provinces, Cape Town, South Africa, 31 October, 2001

Mebratu D. (1998) Sustainability and sustainable development: historical and conceptual review. *Environment Impact Assessment Review*, (18), pg 493-520.

Meadows D. H., Meadows D. I., Randers J., and Behrens III W.W. (1972) *The Limits to Growth*. Universe Books, New York

Mercier J. (2003) Health impact assessment in international development assistance: the World Bank experience. *Bulletin of the World Health Organisation*, 81(6) pg 461-462

Ministry of Roads, Public Works and Housing (2004) *Environmental Impact Assessment (EIA) Study: Proposed World Bank Funded Maji Ya Chumvi-Miritini Road (A109) Rehabilitation and Reconstruction Project*. Prepared for the Ministry of Roads, Public Works and Housing, Kenya

Modak P. and Biswas A. (1999) *Conducting environmental impact assessment in developing countries*. United Nations University Press, New York.

Moen K. (2001) *The Kihansi Public Health Project – Mujaki*. Results of the Kihansi Public Health Project emailed to the researcher on 02 July 2001

Mol A. P. J. (2000) The environmental movement in an era of ecological modernization. *Geoforum*, 31(1), pg 45-56

Mol A. P. J. and Sonnenfeld D.A. (2000) *Ecological modernisation around the world: perspectives and critical debates*. Frank Cass, London.

Morgan R. (2003) Health Impact Assessment: the wider context. *Bulletin of the World Health Organisation*, 81(6), pg 390

NARO (1999) *Fishermen's Actions towards Strengthening their earnings, food security and health into the new millennium*. Report of the Annual Stakeholder Workshop, Colline Hotel, Mukono, 26-28 October 1999

N'Daba L. and Hodges-Aeberhard J. (2002) *HIV/AIDS and employment*. International Labour Organisation, Geneva

NEPAD (2005) New Partnership for Africa's Development (NEPAD) website. Available at: <http://www.mdg.org>

NORAGRIC (1996) *Environmental Assessment of the Mozambique National Water Development Project*. Centre for International Environment and Development Studies, Agricultural University of Norway, Prepared for The World Bank and Direccao Nacional de Aguas, Maputo Mozambique

Oelofse C., Scott D., Oelofse G. and Houghton J. (2006) Shifts within ecological modernisation in South Africa: deliberation, innovation and institutional opportunities. *Local Environment Journal*, in press

Olaniran O. (2000) *Nigeria: Environmental Assessment of Proposed Community Based Poverty Reduction Project*. Prepared for the World Bank, Nigeria

Organisation of African Unity (OAU) (2001) Abuja Declaration on HIV/AIDS, Tuberculosis and other related Infectious Diseases, Declaration of the African Summit on HIV/AIDS, Tuberculosis and other related Infectious diseases, Abuja, Nigeria, 24-27 April 2001. Available at [http://www.un.org/ga/aids/pdf/abuja\\_declaration.pdf](http://www.un.org/ga/aids/pdf/abuja_declaration.pdf)

Owens S., Rayner T. and Bina O. (2004) New research agendas for appraisal: reflections on theory, practice and research. *Environment and Planning A*, 36, pg 1943-1959

Parfitt J. (1997) Questionnaire design and sampling. In: Flowerdew R. and Martin D. (eds), *Methods in Human Geography: A guide for students doing a research project*. Longman Limited, Essex, pg 76-109

Petts J. (1999) *Handbook of Environmental Impact Assessment. Volume 1. Environmental Impact Assessment in Practice: process, methods and potential*. Blackwell Science, Oxford.

Rees W. (1988) A role for environmental assessment in achieving sustainable development. *Environmental Impact Assessment*, 8, pg 273-291

Robinson G.M. (1998) *Methods & Techniques in Human Geography*. Wiley, Chichester

Ruxin J., Binagwaho A. and Wilson P.A. (2005) *Combating AIDS in the developing world*. UN Millennium Project Task Force on HIV/AIDS, Malaria, TB and Access to Essential Medicines, Millennium Project, Earthscan, London

Sadler B. (1996) *Environmental Assessment in a Changing World: evaluating practice to improve performance*. Canadian Environmental Assessment Agency and International Association for Impact Assessment. Final report of the International Study of the Effectiveness of Environmental Assessment, Ottawa, Canada.

Sadler B. and Jacobs P. (1989) A key to tomorrow: on the relationship of environmental assessment and sustainable development. In: Jacobs P. and Sadler B. (eds) *Environmental Assessment and Sustainable Development: Perspectives on planning for a common future*. Canadian Environmental Assessment Research Council, Ottawa, Canada. pg 3-31

Sadler B. & Weaver A.v.B. (1999) Impact assessment and sustainable development: A framework for change and an agenda for research and action. Plenary paper presented at the 19th Annual Meeting of the International Association for Impact Assessment, June 1999, Glasgow, Scotland.

Scott D. and Oelofse C. (2005) Social and Environmental Justice in South African Cities: Including 'Invisible Stakeholders' in Environmental Assessment Procedures. *Journal of Environmental Planning and Management*, 48(3), pg 445-467

Scott D., Oelofse C. and Weaver A. (2001) The institutionalisation of social assessment in South Africa: The post-apartheid window of opportunity. In: Dale A., Taylor N., Lane M. and Crisp R. (eds) *Integrating Social Assessment in Resource Management Institutions*. CSIRO Publishing, Collingwood, Australia, pg 37-50

Scott-Samuel A., Birley M. and Ardern K. (2001) *The Merseyside Guideline for Health Impact Assessment*, International Health Impact Assessment Consortium, Liverpool

Secrett C. (2004) The Politics of Radical Partnerships: Sustainable Development, Rights and Responsibilities. In: Bigg T. (ed) *Survival for a Small Planet: The Sustainable Development Agenda*. Earthscan, London, pg 152-172

Smith D. M. (1997) Back to the good life: towards an enlarged conception of social justice. *Environment and Planning D: Society and Space*, 15, pg 19-35

Smith D. M. (2004) Social Justice and the (South Africa) city: Retrospect and Prospect. *South Africa Geographical Journal*, 2, pg 1-6

Smith G. L. (1993) *Impact assessment and sustainable resource management*. Longman Scientific and Technical; England.

Spaargaren G. (1997) *The Ecological Modernisation of Production and Consumption: Essays in Environmental Sociology*. Dissertation in the Department of Environmental Sociology, Wageningen University

Taylor A. J. W. (2003) Justice as a basic human need. *New Ideas in Psychology*, 21, pg 209-219

Taylor C. N., Bryan H. C. and Goodrich C.G. (1995) *Social Assessment: Theory, Process and Techniques*. Taylor Baines and Associates, Christchurch, New Zealand.

Technology Impro Associates (1996) *Village Infrastructure Project: Environmental Assessment*. Prepared for the Ministry of Food and Agriculture, Tema, Ghana

Topouzis D. and de Guerny J. (1999) *Sustainable Agriculture/Rural Development and Vulnerability to the AIDS Epidemic*. FAO and UNAIDS Joint Publication, UNAIDS Best Practice Collection

Uganda HIV/AIDS Commission (2000) *The National Strategic Framework for HIV/AIDS Activities in Uganda: 2000/1 – 2005/6*. The Republic of Uganda

UNAIDS (1997) *The Business Response to HIV/AIDS: Innovation and Partnership*. The Joint United Nations Programme on HIV/AIDS and The Prince of Wales Business Leaders Forum, Geneva and London

UNAIDS (1998) *HIV/AIDS and the workplace: forging innovative business responses*. Joint United Nations Programme on HIV/AIDS Technical update

UNAIDS (2001) *AIDS Epidemic Update December 2001*. Joint United Nations Programme on HIV/AIDS and World Health Organisation publication

UNAIDS (2002) *AIDS Epidemic Update December 2002*. Joint United Nations Programme on HIV/AIDS and World Health Organisation publication

United Nations (2002) *Plan of Implementation of the World Summit on Sustainable Development*. Available at:

[http://www.un.org/esa/sustdev/documents/WSSD\\_POI\\_PD/English/WSSD\\_PlanImpl.pdf](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf)

United Nations (2005) United Nations Millennium Development Goals website. Available at: <http://www.un.org/millenniumgoals>

United Nations Convention on Environment and Development (UNCED) (1992) *Agenda 21, the Rio Declaration on Environment and Development*. United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992

United Nations Development Programme (UNDP) (2004) *Human Development Report 2004: Cultural Liberty in Today's Diverse World*. United Nations Development Programme, New York

United Nations Environment Programme (UNEP) (2002) *Global Environmental Outlook 3 (GEO-3)*. United Nations Environment Programme, New York

United Nations General Assessment Special Session on HIV/AIDS (UNGASS) (2001) Declaration of Commitment on HIV/AIDS – “Global Crisis-Global Action” 25-27 June 2001 Available at:

<http://www.un.org/ga/aids/coverage/FinalDeclarationHIVAIDS.html>

Valentine G. (1997) Using interviews as a research methodology, sampling. In: Flowerdew R. and Martin D. (eds) *Methods in Human Geography: A guide for students doing a research project*. Longman Limited, Essex. pg 110-126

Vanclay F. (2000) Social Impact Assessment. In: Lee N. and George C. (eds) *Environmental Assessment in Developing and Transitional Countries*. Wiley, Chichester, pg 125-135

Vanclay F. (2002) Conceptualising social impacts. *Environmental Impact Assessment Review*, 22, pg 183-211

Vanclay F. (2003) *Social Impact Assessment: International principles*. International Association for Impact Assessment, Fargo, USA

Vanclay F. (2004) The Triple Bottom Line and Impact Assessment: How do TBL, EIA, SIA, SEA and EMS relate to each other? *Journal of Environmental Assessment Policy and Management*, 6(3), pg 265-288

World Bank (1999) *Confronting AIDS: Public priorities in a global epidemic*. World Bank Policy Research Report, Washington D.C.

World Bank (2001) *Intensifying Action Against HIV/AIDS in Africa: Responding to a Development Crisis*. African Region, Washington D.C.

World Commission on Environment and Development (WCED) (1987) *Our Common Future*. Oxford University Press, Oxford

Zewdie D. (2000) *The World Bank Perspective on HIV/AIDS*. Presentation at the XIII International AIDS Conference, Durban, July 11 2000

## APPENDIX 1: TREATISE ON HIV/AIDS AND DEVELOPMENT

This treatise provides a background to HIV/AIDS and how this health issue is framed as a development issue. This is particularly relevant in the context of socio-economic changes due to development projects. The purpose of this treatise is to provide the reader with a basic understanding of the drivers and impacts of HIV/AIDS, as one would consider the drivers and impacts of other development issues to be addressed in an EIA.

### 1. Introduction to HIV/AIDS

Doubts remain about when and how the AIDS pandemic began (Van Rensburg, 2000). Some researchers claim that HIV/AIDS evolved from simian immunodeficiency virus (SIV), others claim that HIV/AIDS may be man-made, linked to polio vaccine development. In reality, the answers to these questions, if they are ever forthcoming, will have little relevance to the control or management of the disease.

The virus affects mainly two systems of the body, the immune system and the central nervous system, and disease manifestations result from damage to these two systems. Whilst the precise mechanisms leading to the destruction of the immune system have not yet been fully delineated, abundant epidemiologic, virologic and immunologic data support the conclusion that infection with HIV is the underlying cause of AIDS (NIH, 1995). HIV is found in body fluids such as blood, semen, vaginal fluids and breast-milk and the main transmission routes are:

- Unsafe sexual contact between a man and a women or between two men;
- Contaminated blood transfusions or bodily contact involving open bleeding wounds during accidents;
- Intravenous drug use with infected needles; and
- From an infected mother to her baby (Schoub, 1999).

Data on the relative risk of HIV-infection for the main transmission mechanisms is somewhat misleading (Table 1), as the probability of infection can increase dramatically depending on the volume and viral load of the HIV-infected fluid, the state of the exposed individual's immune system, the length of exposure and, in particular, the integrity of the skin or mucous membranes. For example, STD-induced skin lesions are one of the most crucial risk generators.

**Table 1 Risk of HIV infection for the main transmission mechanisms (World Bank, 1999).**

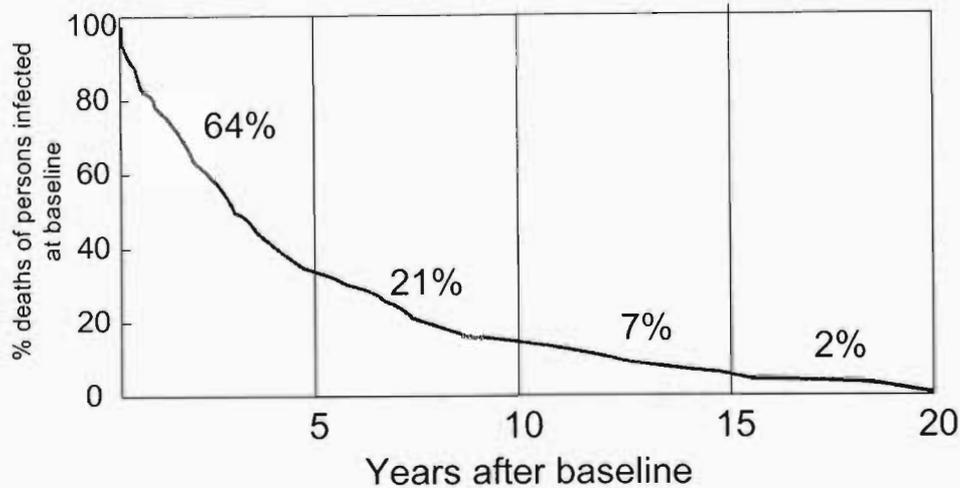
<b>Transmission Mechanism</b>	<b>Probability of Infection Per 1000 Exposures</b>
Unsafe sex <ul style="list-style-type: none"> <li>• Male passing HIV to female</li> <li>• Female passing HIV to male</li> <li>• Male passing to male</li> </ul>	1 - 2 0.33 - 1 5 - 30
Transmission from mother to child	140 - 480
Intravenous drug use with contaminated needles and occupational needle-stick injuries	3
Use of infected blood or blood products	900 - 1000
Bodily contact with between infected blood and <ul style="list-style-type: none"> <li>• Open bleeding wounds</li> <li>• Mucous membranes</li> <li>• Skin</li> </ul>	3 1 <1

Sexual contact is likely to remain the main mode of transmission in southern Africa in general, and within the mining sector in particular, but the risk of occupational exposure will rise as prevalence within the workforce increases.

Some, if not most of the confusion surrounding HIV/AIDS is due to the diverse biomedical conditions that can cause morbidity and mortality in infected individuals. Social, economic and environmental factors also play fundamental roles in the prevalence and incidence of these conditions and will influence the course of morbidity and the specific condition that eventually leads to death. The same social, economic, environmental and biomedical factors also impact on the epidemiology of HIV. However, they do not alter the fundamental connection between HIV and AIDS or the certainty that AIDS results in premature death. Some groups disagree with this conclusion, most famously South Africa's president Thabo Mbeki, but it remains the established view of the international scientific community that underpins global intervention strategies. The only conclusion worth drawing from the complex interaction of factors is that HIV/AIDS can be addressed effectively only by multidisciplinary multi-stakeholder approaches.

## 2. The Course of HIV-Infection

Like any other virus, HIV enters the body and begins to replicate. Many people show no signs of illness directly after infection, but some exhibit flu-like symptoms a month or two after exposure to the virus, e.g. fever, headache, malaise and enlarged lymph nodes (NIAD, 1999). These symptoms usually disappear after a week or more.



**Figure 1** Cumulative probability of survival in Africa following initial HIV infection in baseline year 0 (Whiteside, 1998).

A person infected with HIV may experience a 'silent' incubation period during which there is little disease manifestation. The length of this period is very variable and depends on a number of factors including the age and health status of the individual. Without any form of management it can take 2-10 years after infection before AIDS develops. During this time the individual can continue to participate normally in society and may appear healthy, but will be infectious and able to transmit HIV to other people.

The median period of time between infection with HIV and death is approximately 14-20 years in the developed world. In Africa, it is only 6-8 years and around 64% of deaths occur within 5 years or less (Figure 1). The difference is due to a combination of a more aggressive strain of HIV and greater numbers of opportunistic infections and other immune system depressing factors. Untreated, death occurs 12-24 months after the onset of AIDS. Occasionally, HIV-positive persons develop AIDS and die within months and there a very small number of individuals who have yet to develop AIDS 12 or more years after becoming HIV-positive.

Considerable challenges face stakeholders wishing to undertake long-term HIV/AIDS planning. Determining who is HIV infected, establishing what stage of the disease they are in and predicting when mortality will occur, are all difficult. The lag time between HIV infection and AIDS mortality has led to many stakeholders adopting a wait-and-see approach, because the impacts of HIV/AIDS on morbidity and mortality are yet to manifest themselves, despite high HIV prevalence. Unfortunately, the best management interventions must be instituted well before this stage is reached. With the seemingly dormant state of the disease, many companies underestimate the future impacts of the disease and may be unprepared to deal with the repercussions.

### **3. HIV/AIDS as a development issue**

The ultimate aim of development is social upliftment. This is the goal of the international community as expressed through the Millennium Development Goals and NEPAD and when investing in development projects in Africa. However, vulnerable communities can sometimes be more marginalized in the development process. The relationship between HIV/AIDS and development is a complex one. On the one hand, HIV/AIDS is destroying the development gains of the last few decades and on the other, development itself is promoting HIV transmission through the impact on vulnerable groups such as people living with HIV/AIDS and poor women. This negative cycle is further exacerbated by widespread poverty throughout the continent. In order to break this cycle and respond positively to HIV/AIDS, it is necessary to understand these complex interactions.

### **4. The impact of HIV/AIDS on human development**

Across the globe, issues of health and disease are viewed as falling within the domain of the health care sector and, to varying degrees, the religious sector. The approach to the HIV/AIDS epidemic was no different and, until recently, this latest threat to human health was considered a severe health crisis that needed to be handled solely by the health authorities. However, during the 1990s, the devastating impact of this epidemic on social, economic and environmental development became apparent and resulted in the epidemic being increasingly recognized as a developmental crisis (Table 2). Indeed, the impacts of HIV/AIDS are so serious that in 2000 the United Nations took the unprecedented step of labeling the epidemic a threat to global security (Annan, 2000).

The impacts of HIV/AIDS on some key human development indicators highlights why this epidemic is the greatest threat to public health that Africa has ever faced. Almost

all measures of mortality are becoming worse. In those countries where HIV infection is well established it has become the leading cause of adult death and a major cause of infant and child mortality (Laga, 1997). UNAIDS (2002) estimates that in those countries where more than 15% of adults are infected, at least 35% of boys now aged 15 will die of AIDS. In countries with prevalence as high as South Africa this figure may reach 50%. Life expectancies in many countries are now falling and by 2005 are expected to drop by as much as 20 years and approach levels not seen in Africa since the early 1950s.

**Table 2:** Impacts of HIV/AIDS on the social, economic and biophysical environments (Data sourced from Cadre, 2000; loveLife, 2001; Ashton & Ramasar, 2001)

<b>SOCIAL</b>	<b>ECONOMIC</b>	<b>BIOPHYSICAL</b>
Dissolution of households	Decrease in monthly income per capita, monthly consumption per capita and savings for households	Change in demand for natural resources as the population changes
Poor morale and stress	Loss of economically active people	Inability to utilize natural resources efficiently and effectively as labour resources are lost
Destruction of community social cohesion	Loss of institutional memory of an organization	Pollution of ground water resources through improper burial processes
Stigmatisation and isolation of people living with HIV/AIDS	Inhibition of private sector growth	Air, land and groundwater pollution from disposal of health-care waste
Abandonment and abuse of women infected with HIV	Loss of productivity	Increased vulnerability of people living with HIV/AIDS to changes in environmental change, particularly environmental health problems leading to stricter controls of environmental pollution
Increase in numbers of street children, abuse, and sex work of orphans	Increased costs of training and replacement	Overall impediment to sustainable development progress
Overburdening of public social support systems	Loss of investment in South Africa due to unstable workforces	
Decrease in the Human Development Index	Decrease in GDP of the country	
Decrease in school attendance children heading households no longer attend school		

HIV/AIDS typically attacks and kills young adults who often have families and are economically productive. It is not surprising therefore that the epidemic is having a profound effect on almost every aspect of social and economic life. Although it is difficult to measure the exact impact of HIV at a national level, there is a growing body of evidence on its impacts on households and institutions (<http://www.unaids.org/publications/documents/index.html>). Household providers infected with HIV become dependents as their health steadily deteriorates and scarce resources are used for their care and eventual burial. UNAIDS reports that in families where the bread winner developed AIDS, in urban areas in Côte d'Ivoire, the outlay on school education was halved, food consumption went down 41% per capita, and expenditure on health care more than quadrupled.

The rising mortality of young adults is creating a growing number of AIDS orphans (defined as children who, before the age of 15, lost either their mother or both parents to AIDS). Of the 14 million living AIDS orphans globally, over 95% are in Sub-Saharan Africa. Before AIDS, about 2% of all children in developing countries were orphans but by 1997 the proportion had escalated to 7% in many African countries and in some cases reached 11%. Due to the stigma attached to AIDS, UNICEF reports that AIDS orphans are at greater risk of malnutrition, illness, abuse and sexual exploitation than children orphaned by other causes. A UNAIDS report quotes studies in Uganda which have shown that following the death of one or both parents, the chance of orphans going to school is halved and those who do go to school spend less time there than they did formerly. Other work from Uganda has suggested that orphans face an increased risk of stunting and malnourishment.

Using South Africa as an example, at the national level, UNAIDS (2000) predicts that as HIV prevalence rates rise in South Africa, both total and growth in national income will fall significantly. According to a study by ING Barings Bank (quoted in UNAIDS, 2000) the overall economic growth rate over the next decade is likely to be 0.3 to 0.4 percentage points lower every year than it would have been without AIDS. A further study suggests that by 2010, the real gross domestic product will be 17% lower than it would have been in the absence of AIDS. These figures suggest an alarming future for Africa especially considering that South Africa has one of the strongest economies in the region. In Tanzania, the World Bank predicts that GDP growth will be 15-25% lower for the period 1985-2010 as a result of AIDS (UNAIDS, 1998)

There is not the space here to discuss all the impacts of HIV/AIDS but there is substantial literature that documents these impacts on virtually all aspects of society including education, the health sector, agriculture, business and numerous others. The tragedy of the AIDS epidemic is that it hits the poor the hardest and is rapidly erasing decades of slow but steady gains in standards of living. The much vaunted notion of an African renaissance is at risk of being undermined by the HIV/AIDS pandemic and certainly the idea of “sustainable” development will be un-achievable if HIV/AIDS is not addressed.

##### **5. The impact of development on HIV/AIDS**

When arguing for the integration of HIV/AIDS issues into EA, it is important to recognize the underlying factors which drive HIV transmission. A simplistic approach to HIV/AIDS can be detrimental and the following section provides a background to the dynamics of HIV/AIDS. It is widely believed that the spread of HIV in Africa is almost entirely through sexual intercourse and from infected mother to child.

The transmission of HIV occurs in a social, cultural and economic milieu that strongly influences individual behavior. In other words, risky sexual practices do not automatically change once communities are provided with appropriate information. This vital fact was not appreciated in the early days of the epidemic and, instead, once the mode of transmission had been established, it was believed that education and awareness raising would be sufficient for people to modify their sexual behaviour and hence eliminate or reduce their risk of becoming infected. Whilst this approach worked relatively well in the wealthy industrialized world, it has failed in most developing countries.

The concept of “vulnerability” was developed and became a useful concept in understanding why HIV/AIDS spreads differentially within different populations (Barnett and Whiteside, 1996). For example, inferior economic and social status limits the ability of many women to refuse unwanted or unprotected sexual intercourse regardless of how much they know about AIDS or their desire to adopt safe practices. Societal vulnerability focuses on the contextual factors that strongly influence and constrain an individual's personal choices.

It is important, therefore, that programmes aimed at mitigating the impact of development projects on HIV/AIDS are not limited to only education and condom provision but rather such programmes should consider other potential interventions.

Table 3 provides a scheme of the chain of causation that precedes an individual becoming infected with HIV. In the longer term, issues such as poverty, political instability and addressing the role of women, i.e. the "distal" determinants of HIV infection, will have to be addressed before the epidemic can be brought under control. Development project managers and those responsible for addressing HIV/AIDS issues need to have this bigger picture in mind when approaching the issue of HIV/AIDS.

Whilst there is a substantial body of literature on the impact of HIV/AIDS on development, little has been written on the reverse relationship, i.e. the impact of development on the transmission of HIV and management of AIDS. However, this situation may be changing as there is a growing interest in addressing these impacts among the bigger development agencies including GTZ, UNDP and the World Bank. It is likely that this resurgent interest has been prompted by the realization that, in the absence of a clear strategy, a development project may actually promote the transmission of HIV and hence undermine key developmental objectives (Box 1).

**Table 3:** Causal factors in the transmission of HIV and the development of AIDS, potential interventions and methods of monitoring and evaluation.

	<b>ENVIRONMENT</b>	<b>INDIVIDUAL LEVEL IMPACTS</b>	<b>SEXUAL BEHAVIOUR</b>	<b>IMMEDIATE DETERMINANTS</b>	<b>DISEASE PROGRESSION</b>	
<b>DETERMINANTS</b>	Cultural attitudes & practices Poverty Civil war Political instability Urbanization Low status of women Poor health services and limited coverage Lack of political will, national "denial"	Migration Mobility Poor self esteem Sexual violence Sexual powerlessness Little access to information Poor access to optimal STD care HIV/AIDS myths IV Drug and other substance abuse	Sexual networks (no. of partners, partner change, & concurrent partners) Prostitution Survival sex "Sugar daddies" Cultural practices (widow inheritance)early sexual debut, dry sex	Biological vulnerability (young girls) STD prevalence Low condom use Male circumcision Stage of infection Virus subtypes Unsafe blood supply Sharing needles	Poverty (exposure to infectious diseases, poor nutrition) Stigma Poor access to health care	
					<b>HIV Infection</b>	<b>AIDS</b>
<b>INTERVENTIONS</b>	Good governance Political recognition & commitment	Decrease mobility of population	IEC on sexual health High access to	Optimal STD management	Treatment of opportunistic infections	

**Table 3:** Causal factors in the transmission of HIV and the development of AIDS, potential interventions and methods of monitoring and evaluation.

	<b>ENVIRONMENT</b>	<b>INDIVIDUAL LEVEL IMPACTS</b>	<b>SEXUAL BEHAVIOUR</b>	<b>IMMEDIATE DETERMINANTS</b>	<b>DISEASE PROGRESSION</b>	
	Social cohesion Equitable distribution of wealth Religion Rural isolation	Improve health care services and information dissemination Women empowerment programmes Target drug users	VCT Adapt cultural practices	Condom promotion Availability of circumcision services MTCT programmes Safe blood supply ARV therapy available	ARV therapy Preventive therapy Home-based care	
<b>MONITORING &amp; EVALUATION</b>	Human Development Index			KAP studies	Surveillance of HIV/AIDS prevalence and incidence	Mortality

(Adapted from Whiteside and Sunter 2000)

Another factor that motivates for HIV/AIDS issues to be addressed within EIA is the growing trend towards having a multisectoral approach to the disease and its impacts. There is now widespread acceptance of the fact that HIV/AIDS cannot be managed by the health sector alone but instead requires an integrated line of attack across key societal sectors including education, culture, religion and business. Until recently this multi-sectoral approach has been largely limited to policy directives and low-profile, isolated activities but increasingly other sectors, particularly education, are focusing on the impact of the epidemic on their operations and developing strategies to prevent and manage the situation.

International development agencies are also taking similar steps. The German agency, GTZ, has made it mandatory for all its divisions to not only undertake HIV prevention activities but also to integrate HIV/AIDS into all development programmes and projects (Drame, 2000). The Swiss Agency for development and cooperation, SDC, has also built in HIV prevention activities into its development projects in all sectors in Mali including health, forestry, agriculture and the crafts industry (<http://www.sdc-gov.ch/>). It is apparent from reading the literature that there is still a lack of clarity and agreement on what is meant by a multi-sectoral or developmental approach to HIV/AIDS. Some organizations still interpret this approach narrowly and essentially only offer enhanced prevention programmes. Others have taken it further and have incorporated HIV/AIDS issues ranging from prevention to care and mitigation into all aspects of their activities.

## **6. The role of development projects in reducing the impact of HIV/AIDS in Africa**

As shown in the section above, development projects have the potential to impact negatively on the transmission of HIV in an area. However, development projects can firstly, be designed to cause minimal negative impact on HIV transmission, and secondly, can have a positive impact on the management of HIV/AIDS in an area. There are many benefits to addressing HIV/AIDS through the EIA of development projects. Firstly, the magnitude of HIV/AIDS in SSA has already reached extreme magnitude and is continuing to increase. Any development undertaken in SSA will be confronted with the effects of the HIV/AIDS pandemic. By recognizing this problem upfront, project task teams can plan for the disease. Secondly, the potential impact of development on HIV transmission cannot be ignored as it undermines the fundamental principles of responsible development. Mitigating HIV/AIDS impacts is necessary to ensure the

success and credibility of Bank-funded projects. Finally, HIV/AIDS has been recognized as a concern to global security and an impediment to development. The nature of HIV/AIDS demands a multi-sectoral response and thus all development should contribute to fighting HIV/AIDS.

## **7. Conclusion**

HIV/AIDS is and always be a bio-medical issue in that it is a virus that causes a disease syndrome which ultimately affects the health of the infected individual. Whilst this is an irrefutable fact, there is a broader context for HIV/AIDS created by the socio-economic drivers and impacts of the disease not only on the infected individual but also all those affected by the disease.

The magnitude of the HIV/AIDS epidemic has led to cumulative impacts that are strengthening global sustainability. HIV/AIDS impacts have now extended beyond bio-medical and health impacts into broad-scale social, economic and ecological consequences. The UN General Assembly Special Session on HIV/AIDS (2001) recognized HIV/AIDS as a threat to development. There is thus a need to address HIV/AIDS through all sectors and spheres of development in order to move towards sustainable development.

HIV is most commonly transmitted through sexual intercourse which is itself a social action that occurs within a particular context. The context in which sexual intercourse between human beings occurs is influenced by socio-economic and cultural factors so that the decision to have intercourse is made for different reasons by different people. In some cases, this decision to have intercourse is not a choice by one of the participants but is imposed on the individual through factors such as rape, child abuse or rights endowed on husbands by culture. The presence of diverse drivers of sexual activities means that not every person who has sex is a willing, knowledgeable and active participant. These socio-economic and cultural factors are fundamentally important in fighting the epidemic as we need to address the drivers in order to affect behavioural changes.

Within this context, it has been recognized that development projects change the socio-economic and cultural drivers in a community in a manner that can lead to increased transmission of HIV. This often happens by creating inequalities between people be it men and women, a workforce and the local community or urban and rural people. As

such, a project may have a negative impact on HIV transmission as an unintended consequence of the project design. There is thus a responsibility when planning and assessing projects to consider these consequences and try as far as possible to ensure that the socio-economic and cultural changes that result are not conducive to increased transmission of HIV.

## References

Annan K. (2000) Address to the United Nations Security Council by UN Secretary-General, 10 January 2000, New York

Ashton P. and Ramasar V. (2001) Water and HIV/AIDS: Some strategic considerations in southern Africa. In: Turton A.R. & Henwood R. (eds) *Hydropolitics in the Developing World: A Southern African Perspective*. African Water Issues Unit and International Water Management Institute Pretoria

Barnett T. and Whiteside A. (2002) *AIDS in the Twenty-First Century: Disease and Globalization*. Palgrave Macmillian, New York

CADRE (2000) *The Economic Impact of HIV/AIDS on South Africa and its Implications for Governance: A literature review*. Prepared on behalf of USAID through the Joint Centre for Political and Economic Studies, Pretoria, South Africa

Dramé M. (2000) GTZ/RAPA's multisectoral approach in West Africa. *Sexual Health Exchange*, 2000/3 pg 9-10.

Laga M., De Cock K., Kaleeba N., Mboup S. and Tarantola D. (1997) HIV/AIDS in Africa: the second decade and beyond. *AIDS*, 11 (suppl B): S1-S3.

loveLife (2001) *Impending Catastrophe Revisited: An update on the HIV/AIDS epidemic in South Africa*. Henry J Kaiser Foundation, Parklands South Africa

National Institute of Allergy and Infectious Diseases website. Available at: <http://www.niaid.nih.gov>

NIH (1995) The Relationship between the Human Immunodeficiency Virus and the Acquired Immunodeficiency Syndrome. Available at:

<http://www.niaid.nih.gov/publications/hivaids/all.htm>

Topouzis D. and de Guerny J. (1999) *Sustainable Agriculture/Rural Development and Vulnerability to the AIDS Epidemic*. FAO and UNAIDS Joint Publication, UNAIDS Best Practice Collection

UNAIDS (1998) *HIV/AIDS and the workplace: forging innovative business responses*. Joint United Nations Programme on HIV/AIDS Technical update

UNAIDS (2000) *AIDS Epidemic Update: December 2000*. Joint United Nations Programme on HIV/AIDS and World Health Organisation publication

Van Rensburg E.J. (2000) The origin of HIV. *South African Journal of Science*, 96(6), pg 267-282

Whiteside A. (ed.) (1998) *Implications of AIDS for demography and policy in southern Africa*, University of Natal Press

Whiteside A. and Sunter C. (2000). *AIDS: The Challenge for South Africa*. Human & Rousseau Tafelberg

World Bank (1999) *Confronting AIDS: Public priorities in a global epidemic*. World Bank Policy Research Report, Washington D.C.

**APPENDIX 2: INTRODUCTORY LETTER TO WORLD BANK COUNTRY  
REPRESENTATIVE IN UGANDA**

**Division of Water, Environment and Forestry Technology**

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04 September 2000

Dear Sir

**Re: HIV/AIDS and Development: Using the environmental assessment process in  
World Bank-funded projects to have a positive impact on the HIV/AIDS epidemic**

The Council for Scientific and Industrial Research has been contracted by the World Bank to carry out a feasibility study into the potential for integrating HIV/AIDS prevention and management into the World Bank environmental assessment (EA) process. In order to ensure that the product we develop meets the needs of the Bank staff, we request your assistance in carrying out this study. Outlined below is a description of the project and the assistance required from you. We would appreciate it if you could take the time to read this document and assist us if possible.

**Background to the project**

HIV/AIDS has now been recognized, above and beyond the human suffering that it creates, as a major handicap to economic and social development in Sub-Saharan Africa. The World Bank, through its investment in development projects in Sub-Saharan Africa has the potential to ensure that Bank-funded projects do not help spread the epidemic, and help build capacity in line agencies to prevent, mitigate and monitor HIV/AIDS in priority development sectors. The Bank is using EA as a tool for screening and reviewing Bank-funded activities to prevent environmental degradation and can similarly be used to minimise HIV transmission and AIDS management. Using the EA

process to prevent HIV transmission and mitigate the impacts of World Bank-funded projects on HIV/AIDS could provide a powerful tool against HIV/AIDS in Africa. In addition, the consideration of HIV/AIDS in EA will highlight the potential negative impacts of HIV/AIDS on the success of projects and how these can be included in the planning of projects, as well as providing an opportunity for development projects to contribute to the fight against HIV/AIDS.

This study has been commissioned to explore ways and means of ensuring the integration of HIV/AIDS issues into EA. This potentially will ensure that HIV/AIDS is given sufficient consideration in the review of development projects.

### **Purpose of the visit**

Part of the project involves carrying out two country case studies. The reasons for this are four-fold:

Firstly, a brief review of a few Bank-funded projects, which have been, are being or will be undertaken in the country, will be undertaken. Potential projects have been put forward which provide examples of new projects; projects underway and projects which are directly associated with capacity building in the health sector. Projects underway will be looked at to consider if and how HIV/AIDS issues have been incorporated into the EA and project plan. The success of these interventions and whether the project would benefit from the framework being developed in this project will be analysed. Similarly, new projects will be assessed for the potential to incorporate HIV/AIDS issues in their development. Projects in the health sector will provide the project team with an understanding of the types of interventions being put into place to deal with HIV/AIDS in Uganda.

Secondly, within the Bank, other donor agencies and national governments, AIDS is a matter of priority in Africa. A number of initiatives are underway to prevent and manage the disease. To optimize the benefits of this framework, it is important for there to be integration with other initiatives being carried out in a country. One of the objectives of this study will be to determine whom the role-players are that are involved in HIV/AIDS control at national through to local level and their capacity and programmes for HIV/AIDS control. This may include government structures, international agencies (including the

Bank), NGOs and CBOs. This will support the project team's recommendations on collaborative work.

Thirdly, the mission will assess the willingness and capacity of those organizations and individuals in the country who are responsible for commissioning, conducting or reviewing World Bank EIAs, to incorporate our proposed tools into the EA process. Such organizations may be government departments, local or international NGOs and private sector companies. It is critically important for country stakeholders to support this approach, and thus their buy-in and involvement need to be obtained. This visit is an opportunity to share our ideas with stakeholders and understand the opportunities and constraints of their involvement.

Finally, the country case studies will be used to collect data on the impacts, both positive and negative, of development projects on the HIV/AIDS epidemic. This information will be used to assess the feasibility of integrating HIV/AIDS issues into environmental assessment.

### **Intended programme**

It is envisaged that a visit will be made to Kampala in Uganda with the view to speaking to World Bank staff and other stakeholders in the country. Stakeholders will include representatives from the health and infrastructure sectors. The project team will liaise with the World Bank to set up workshops and meetings with stakeholders. The field visit will also be used to interview other donor and development agencies to learn from their experiences. Statistical data, project reports and other secondary sources of information on HIV/AIDS relating to development projects will be collected before and during the visit. The findings of the study will help the project team analyze future Bank-funded projects and will provide empirical evidence to support the final recommendations. A field visit to project sites will be carried out if feasible.

### **Potential projects for review**

**Roads II – TTL:** Yitzhak Kamhi Sector: Transportation Project Id.: 65436

**Roads Development Program – TTL:** Yitzhak Kamhi Sector: Transportation Project Id.: 2970

**Cotton Sector Development** - TTL: Christine Cornelius Sector: Agriculture Project Id.: 2977

**Bujagali Private Hydropower** – TTL: Karen Rasmussen Sector: Electricity, Power & Energy Project Id.: 63834

**Sexually Transmitted Infections** – TTL: Mary Mulusa Sector: Population, Health & Nutrition Project Id.: 2963

**Poverty** – TTL: Ritva Reinikka Sector: Multisector Project Id.: 67109

**Environmental Management** - TTL: Nathalie Johnson Sector: Environment Project Id.: 2978

**Health Sector Reform** - TTL: Mary Mulusa Sector: Population, Health & Nutrition Project Id.: 2979

**Institutions to be visited**

Uganda Ministry of Health

Coordinating agency for the National HIV/AIDS Control program (if not the DoH)

National Environmental Management Authority

Ugandan Virus Research Institute

Ugandan AIDS Commission

International Partnership Against HIV/AIDS in Africa (IPAA) partners represented in Uganda – UNAIDS; WHO

Donor agencies/NGOs/CBOs

**Immediate outputs**

Responses to questionnaires and data collection sheets and a trip report

## Ultimate outputs

The methodology being adopted in this study includes assessing the feasibility of incorporating HIV/AIDS issues into environmental assessment and developing a framework to guide environmental and operational staff on how to assess and manage HIV/AIDS in development projects. Two main outputs will be developed through this project:

Firstly, the study will assess the feasibility of using the EA process to prevent HIV transmission and minimize the impacts of Bank-funded projects on HIV/AIDS. Following-on from the initial assessment, the project team will develop a framework on how to integrate HIV/AIDS issues into the World Bank EA process. This will be a practical output, which includes tools, guidelines on their application and “good practice” examples.

Secondly, the study will provide a road map outlining the necessary steps to take the project forward. This will focus on the necessary requirements and actions needed to successfully integrate HIV/AIDS issues into EA within the World Bank, as well as the opportunities and constraints in African countries to support environmental assessment and HIV/AIDS mitigation and management for the ultimate goal of decreasing HIV/AIDS in Africa.

## Logistics

The detailed planning logistics have not been defined as yet but the following details are available:

<b>Project team:</b>	Vasna Ramasar (EA specialist), Rob Hounsome (EA specialist) and Mark Colvin (HIV/AIDS transmission specialist)
<b>Dates:</b>	Sometime in October, as and when it is most convenient
<b>Length of visit:</b>	Approximately 8 days
<b>Destination:</b>	Kampala

**What we require from you**

It is our objective to interview Bank staff and other stakeholders who can provide us with useful information on development projects, HIV/AIDS and EA in Uganda. We would appreciate if you could make some time available to discuss the project with us. The World Bank has an established presence in Uganda and it would expedite our mission if we could use the Bank's network to identify and approach appropriate stakeholders from the government, international agencies, NGOs, CBOs and private sector. Any suggestions you may have on appropriate people to contact in Uganda would be appreciated. We also plan to review a few development projects in Uganda, to understand their implications for HIV/AIDS transmission and mitigation. Absolute confidentiality will be maintained on data obtained. It is hoped that the projects themselves will benefit from insights into how mitigation measures may be introduced or "retrofitted" to the project. Successful mitigation measures will also be publicized through their use as "good practice" examples.

Your assistance will be greatly appreciated.

Regards

**Vasna Ramasar**

Project manager

[vramasar@csir.co.za](mailto:vramasar@csir.co.za)

**APPENDIX 3: OPEN-ENDED QUESTIONS USED IN INTERVIEWS**

A semi-structured interview approach was adopted in the interviews with respondents. A number of open-ended questions were developed prior to the interviews and these were used to guide the discussion. In each case, the questions were adapted to suit the knowledge and background of the respondent. Questions also evolved as the interview progressed as the researcher probed the responses given. The key questions posed to respondents were as follows:

1. Provide some background to your involvement in development projects/ EIA/ HIV/AIDS
2. What would you say has been the impact of HIV/AIDS on your country?
3. Has HIV/AIDS impacted on your organization or the work of your organization in any way?
4. In view of the situation in the country, could the development work of your organization increase the transmission of HIV?
5. How is HIV/AIDS being addressed by your organization, if at all?
6. How do you partner with in these interventions?
7. What is the approach adopted to approving development projects being implemented/funded by your organization?
8. Are projects subject to an EIA prior to approval?
9. Do you follow the national EIA standards or your own organizational process?
10. What is the purpose of the EIA?
11. In your experience, how are social issues addressed in the EIA process?
12. Are HIV/AIDS impacts considered in the EIAs? How?
13. Is it appropriate for the EIA process to be assessing HIV/AIDS impacts?
14. Should EIA consider HIV/AIDS impacts of development?
15. Is the EIA process suitably equipped to assessing HIV/AIDS impacts properly?
16. Is there capacity in the country to address HIV/AIDS impacts through specialist studies?
17. What would be the benefits/costs of doing so?
18. What are the challenges that you foresee for assessing HIV/AIDS impacts in EIA?

**APPENDIX 4: INVITATION TO INVESTIGATIVE WORKSHOP****INVITATION**

Dear Dr David Apuuli

As a leader in HIV/AIDS management in the south and east African region, you are cordially invited to attend a workshop on integrating HIV/AIDS issues into environmental assessments.

**BACKGROUND**

The HIV/AIDS pandemic has become one of the main causes of death in Africa and consequently impairs social, economic and environmental development on the continent. We have come to realise that the disease is closely related to social conditions and practices. Recent studies have shown that development projects can contribute to creating social conditions where increased HIV transmission occurs.

The World Bank, recognising this problem, contracted the CSIR to develop a framework for integrating HIV/AIDS issues into development projects. This approach allows potential HIV/AIDS risks to be identified upfront through the environmental assessment (EA) process and managed through the management plan for the project.

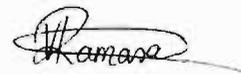
This workshop is being convened to bring stakeholders from the south and east African region together to share learning on addressing HIV/AIDS through EA. The World Bank framework for integrating HIV/AIDS issues into EA will be presented as the starting point for further discussions amongst participants.

**WORKSHOP OBJECTIVES**

- ❑ To introduce participants to a framework and tools for addressing HIV/AIDS issues in the EA process.
- ❑ To test the appropriateness of the framework for application in the region.
- ❑ To discuss opportunities and requirements for introducing HIV/AIDS into environmental assessment practices in the region.

Your presence at the workshop will contribute to positioning EA to impact on one of Africa's most serious concerns.

Thank you

A handwritten signature in black ink, appearing to read "Kamase", with a horizontal line extending to the right.

Workshop Coordinator

VENUE	WORKSHOP DURATION
Protea Hotel San Lameer South Africa ( <a href="http://www.proteahotels.co.za/hotel/hotel.asp?h=sa_KN01">http://www.proteahotels.co.za/hotel/hotel.asp?h=sa_KN01</a> )	23 <sup>rd</sup> February to 28 <sup>th</sup> February 2003

### FUNDING

The cost of the workshop as well as delegates' travel, visas, board, per diems and lodging will be fully funded.

### ITINERARY

□ **SUNDAY 23<sup>RD</sup> FEB**

Arrive Durban International Airport, Durban, South Africa

Airport shuttle to Protea Hotel San Lameer, South Broom, South Africa

Welcome dinner

□ **MONDAY 24<sup>th</sup> FEB to THURSDAY 27<sup>th</sup> FEB**

Workshop as detailed in Annexure A

□ **FRIDAY 28<sup>th</sup> FEB**

Depart Protea Hotel San Lameer by airport shuttle to Durban International Airport.

Depart Durban International Airport

**CONTACT DETAILS**

TECHNICAL INFORMATION	WORKSHOP INFORMATION
M/s Vasna Ramasar CSIR, Environmentek PO Box 17001 Congella South Africa Tel: +27-31-2618161 Fax: +27-31-2613174 Email: <a href="mailto:vramasar@csir.co.za">vramasar@csir.co.za</a>	M/s Leonie Subramoney CSIR, Environmentek PO Box 17001 Congella South Africa Tel +27-31-2618161 Fax: +27-31-2613174 Email: <a href="mailto:lsubramoney@csir.co.za">lsubramoney@csir.co.za</a>

**ATTENDANCE OF WORKSHOP**

Please advise of your acceptance of this invitation as soon as possible, but no later than the 31<sup>st</sup> January 2003. Should you be unable to attend personally, we would appreciate it if you could nominate a representative to attend in your place.

**ANNEXURE A**  
**CONTENT OF WORKSHOP**

TOPIC	AIM OF TOPIC
<b>DAY 1</b>	
Registration	
Welcome and purpose of the regional consultation	Opening of the workshop by World Bank and CSIR team
<b>DAY 2</b>	
Introductions	Introduce all participants and obtain their expectations of the workshop
Introduction to the HIV/AIDS Epidemic in Sub-Saharan Africa	Review the status of HIV/AIDS in the region and projections for the future
Linkages between HIV/AIDS and Development	This section will highlight the socio-economic linkages between HIV/AIDS and development, in the context of development projects
Status of EIA in the region	To review the status of EIA in the region.
Environmental Assessment and the project cycle	To ensure that all participants have a common understanding of the EIA process.
Addressing HIV/AIDS in Environmental Assessment	Describes the motivations for integrating HIV/AIDS issues into EA
<b>DAY 3</b>	
Review of Day 1	Review and enforce main learning points from Day 1.
Framework for integrating HIV/AIDS issues into EA	To provide participants with a sound understanding of what is involved in integrating HIV/AIDS issues into Environmental Assessment
TOOLS FOR INTEGRATION: HIV/AIDS issues in Screening HIV/AIDS Specialist Study Interventions for HIV/AIDS Management Monitoring and Evaluation	
<b>DAY 4</b>	
Review day 2	Review and enforce main learning points from Day 2.
Practical case study	Working groups will work through an EIA to

TOPIC	AIM OF TOPIC
	integrate HIV/AIDS aspects into the process
Plenary Working Group presentations and discussion	
Working Group Discussions: Applicability of the framework to the region	Working groups will discuss the value of this framework to the region and whether it should be adopted for use
Plenary Working Group presentations and discussion	
<b>DAY 5</b>	
Review of day 3	Review main learning points from day 3
Implementation of framework in regional Environmental Assessment processes	This section focuses on the value and means of integrating HIV/AIDS into EA in the region

**APPENDIX 5: IDENTIFICATION OF HIV/AIDS ISSUES WITHIN THE PHASES OF THE EA PROCESS WITH ROLES & RESPONSIBILITIES**

<b>Phase</b>	<b>Role</b>	<b>Responsibility in terms of HIV/AIDS</b>	<b>Supporting Tools</b>
<b>Scoping</b>	Task Team Leader (TTL) in consultation with the EA team	Identify issues and potential impacts of projects on HIV/AIDS transmission. Consult with local stakeholders including the National HIV/AIDS Council	<ol style="list-style-type: none"> <li>1. Checklist to identify projects with potential impacts</li> <li>2. Criteria for identifying potential impacts at the screening phase</li> <li>3. Guidelines for deciding whether the assessment of HIV/AIDS requires a full impact assessment with the collection of baseline data, or just a management strategy.</li> </ol>
	Reviewer	Categorise project according to the level of impact and take the necessary steps depending on the category of the project (i.e. sign off on ISDS, send ESIM to TTL, and assign an environmental and social reviewer)	<ol style="list-style-type: none"> <li>1. Criteria for ensuring that the initial screening has covered all the potential issues. The tools used by the reviewer may be the same as the tools used by the TTL</li> </ol>
<b>Environmental Impact Assessment</b>	TTL in consultation with the EA team	Provides the consultants with TORs. Helps the borrower mobilize resources, programme and supervise	<ol style="list-style-type: none"> <li>1. HIV/AIDS inputs into TORs for consultants</li> <li>2. Principles for integrating HIV/AIDS issues into EA</li> <li>3. Guidelines on good practice in integrating HIV/AIDS issues into EA</li> </ol>
	Reviewer	Provides feedback on the progress of the EA. Makes a judgement on the EA report and issues a clearance memo.	<ol style="list-style-type: none"> <li>1. Principles for integrating HIV/AIDS issues into EA</li> <li>2. Guidelines on good practice in integrating HIV/AIDS issues in EA</li> <li>3. Criteria for appraisal of EA report</li> </ol>

Phase	Role	Responsibility in terms of HIV/AIDS	Supporting Tools
	Consultant	<p>Carry out an assessment of the potential impacts of the development project on the transmission of HIV/AIDS within the EA.</p> <p>1. Conducting baseline studies and obtaining secondary data from available sources. The need for public participation in providing local and indigenous knowledge in this process will be highlighted in the principles for integrating HIV/AIDS issues into EA</p> <p>2. Modeling HIV transmission in the absence of the project and with the project. The latter modeling should be done using various combinations of prevention measures and mitigating interventions in order to prioritise the most cost-effective approach.</p> <p>3. Provide recommendations on the prevention and mitigation options appropriate for the specific project. These recommendations should be based on a good understanding of the local conditions.</p>	<p>1. Principles for integrating HIV/AIDS issues into EA</p> <p>2. Good practice guidelines for conducting baseline studies and obtaining secondary data.</p> <p>3. Good practice guidelines for public participation</p> <p>4. Cause and effect model for HIV/AIDS transmission</p>
<b>Environmental Management Plan Development and Implementation</b>	TTL in consultation with the EA team	Provides advice and support. Helps mobilize resources and supervises.	<p>1. Guidelines on HIV/AIDS management options</p> <p>2. Guidelines on roles and responsibilities</p> <p>3. Tools for monitoring and evaluating the interventions.</p>
	Borrower	Responsible for ensuring the implementation of the EMP. Delegate responsibility for parts of the EMP to appropriate people within the country.	<p>1. Guidelines on HIV/AIDS management options</p> <p>2. Guidelines on roles and responsibilities</p> <p>3. Tools for monitoring and evaluating the interventions.</p>