THE INTEGRATION OF HIV/AIDS ISSUES INTO THE ENVIRONMENTAL ASSESSMENT PROCESS FOR WORLD BANK-FUNDED DEVELOPMENT PROJECTS

Report No 1 26858

INTEGRATED REPORT

The World Bank

February 2002
THE INTEGRATION OF HIV/AIDS ISSUES INTO THE ENVIRONMENTAL ASSESSMENT PROCESS FOR WORLD BANK-FUNDED DEVELOPMENT PROJECTS

This work is published in a series of four documents. This document "The Integration of HIV/AIDS issues into the Environmental Assessment process for World bank-funded development projects: Integrated Report" is Document 1 in the series.

➢ Document 2: The relationship between HIV/AIDS and Development

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ACKNOWLEDGEMENTS

The project team would like to acknowledge the assistance provided by staff of the World Bank in Washington, Ethiopia and Uganda. In particular, the staff of the resident missions in Addis Ababa and Kampala are noted for their assistance. A number of people in the case study countries, Ethiopia and Uganda made time in their schedules to meet and discuss the project and contributed a great deal of useful knowledge and experience that has helped the project team immensely. Dr Karé Moën’s assistance with developing the Kihansi case study was very valuable. We are grateful for all your time and contributions.
EXECUTIVE SUMMARY

The World Bank has commissioned a feasibility study into the potential for integrating HIV/AIDS issues into the Environmental Assessment process for development projects in Sub-Saharan Africa. The CSIR was asked to investigate the feasibility of this approach and this report presents the findings of the study.

This initiative represents one of the priority actions of the Bank in support of its commitment against the HIV/AIDS epidemic. HIV/AIDS has been recognized as a development crisis and Africa has been particularly hard-hit by the epidemic.

Within all sectors, HIV/AIDS impacts on development and is resulting in a retardation of the development progress being made in Africa. As a result of this impact on development, there is an imperative to consider HIV/AIDS in World Bank-funded development projects. Less obvious but equally concerning is the potential negative impact of development projects, themselves on the transmission of HIV. In recent years, developers have recognized that some projects can lead to the unintentional increase in transmission of HIV because of activities related to the project. Development projects can lead to problems such as increased mobility of people, separation of men from their families, and income inequalities. These factors promote risky sexual behavior that can lead to increased transmission of HIV. In order to mitigate these impacts as far as possible, an assessment of HIV/AIDS is necessary to identify potential impacts and put into place mitigation measures to reduce the impacts.

The report concluded that using the EA process as a vehicle for HIV/AIDS assessment and management is a logical approach for a number of reasons including:

a) The broadening focus of EA includes consideration of human health issues and elements of HIV/AIDS issues have already been incorporated into the EA of Bank-funded projects, albeit on an ad hoc basis.

b) EA is a process that allows the early screening of all Bank-funded projects.

c) 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.

d) HIV/AIDS prevalence in an area can lead to the failure of a development project and projects must take account of HIV/AIDS before development.

e) EA already has an established process that can be adapted to include HIV/AIDS impacts.

f) Integrating HIV/AIDS issues to EA mitigates the need for development projects to undergo an additional assessment process.

The flexibility of the EA process means that it is possible to introduce HIV/AIDS concerns into the EA without greatly modifying the EA process. A framework for integrating HIV/AIDS into EA requires that each stage in the EA process incorporate
additional tools that will highlight the HIV/AIDS component of the study. Figure 1 describes the framework in its simplest form.

Figure 1 Framework for integrating HIV/AIDS issues into the EA process

The framework shown above is further elaborated so that at each phase of the environmental assessment process, specific tools are available to environmental practitioners and reviewers to address the HIV/AIDS issue.

Screening
A set of 17 screening questions can be used at the pre-feasibility stage to decide on the level of assessment required for the impacts of the project on HIV/AIDS. Based on this early screening, the project may follow one of three pathways:

1. Undertake an HIV/AIDS Specialist Study within the EIA followed by an HIV/AIDS management component in the EMP
2. An HIV/AIDS Specialist Study is considered unnecessary and the project goes straight to an HIV/AIDS management component in the EMP
3. No significant impacts are identified at the screening stage and HIV/AIDS management is not built into the project. However, a minimum level of monitoring is carried out to ensure the situation does not change.

Specialist Study
Should the project go through to an HIV/AIDS Specialist Study, terms of reference (TORs) for addressing HIV/AIDS must be included in the consultant’s TORs. The specialist must answer the following questions on the HIV/AIDS impacts including:

1. Is HIV/AIDS relevant to the proposed project?
2. What risks do HIV/AIDS problems pose to the project?
3. What is the potential impact of the project on transmission of HIV?
4. What are the mitigation measures?

Management Interventions
A range of interventions is being used for HIV/AIDS management and the appropriate choice of management measures can be selected from a toolbox of options.

<table>
<thead>
<tr>
<th>Potential management interventions for HIV/AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific HIV prevention activities</td>
</tr>
<tr>
<td>• IEC activities</td>
</tr>
<tr>
<td>• Peer education</td>
</tr>
<tr>
<td>• Involving PLWHAs</td>
</tr>
<tr>
<td>• Condom provision</td>
</tr>
<tr>
<td>• STD management</td>
</tr>
<tr>
<td>• Integration of HIV/AIDS into thematic projects (e.g. emergency training)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Addressing “vulnerability” of the workforce</th>
<th>Addressing “vulnerability” of the impacted community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adjust labour recruitment policies to:</td>
<td>• Outreach to sex workers</td>
</tr>
<tr>
<td>• Support better distribution across gender groups</td>
<td>• Resettlement policies</td>
</tr>
<tr>
<td>• Promoting use of local labour</td>
<td>• Access to STD services in the community</td>
</tr>
<tr>
<td>• Improve labour housing to accommodate families, integration into the community, and provide recreational facilities</td>
<td>• Capacity building in the community</td>
</tr>
<tr>
<td>• Gender equity</td>
<td>• Involvement of the community in IEC</td>
</tr>
<tr>
<td>• Recreation provision</td>
<td>• Social marketing of condoms</td>
</tr>
<tr>
<td>• Remittance provision</td>
<td></td>
</tr>
<tr>
<td>• Labour transport</td>
<td></td>
</tr>
</tbody>
</table>

Monitoring and Evaluation
As management interventions are implemented, a monitoring program must be put in place to ensure that the interventions are being successfully applied. Depending on the resources available, the monitoring and evaluation can include detailed prevalence studies or simply audits of the implementation of recommended interventions.
Arising from the conclusions drawn in this feasibility study, the following recommendations can be made to integrate HIV/AIDS into the EA process:

- **Customise tools for the different sectors**
The framework presented in this report provides generic guidance on integrating HIV/AIDS into EA. In order to streamline the process for different sectors, it is recommended that a simple set of checklists and optional interventions be drawn up for each sector. In all cases this should be couched within the EA process but could have variable levels of assessment depending on the risks associated with the sector.

  The roll-out must be carried out on a progressive basis. Priority sectors with the greatest impact on HIV transmission should be considered first. Other sectors may require a different type of roll-out that only focuses on integration of HIV/AIDS into the management components of EA.

- **Test the framework through project application**
Carrying out a similar feasibility study in other regions is not necessary. The best approach to begin roll-out within the Bank is to use the framework for a few projects in different countries and regions. Sub-Saharan Africa, South and East Asia and South America should all have projects undertaken in the near future. The findings of these projects can be captured as a “lessons learnt” booklet by ActAfrica for wide distribution within the Bank.

- **Development of an EA Sourcebook Update**
As there is no single guideline document that provides a readily useable toolkit integrating HIV/AIDS issues into EA, it is recommended that an update to the EA Sourcebook be prepared. The update can summarise the approach and tools that are available to EA practitioners.

- **Information dissemination within and outside the Bank**
With the Bank’s approval, this report can be distributed to all stakeholders consulted in the process and other interested parties. This can be undertaken by the consultant responsible for preparing the report.

- **Capacity building of Bank staff**
As a priority, staff from World Bank environment, social and health departments must be presented with the framework in a workshop and be given an opportunity to discuss how they would use it.

  In the countries with the highest prevalence rate, World Bank resident missions should have at least one staff member who is able to advise on HIV/AIDS issues for all country projects. In Africa, this could be one of the staff most closely involved in the Multi-country HIV/AIDS Programs. Where this competence does not exist, it should be brought in or capacity built in HIV/AIDS issues.

- **Awareness and capacity building of government authorities**
Within national governments, a HIV/AIDS “roadshow” could be presented to representatives from the environmental authority in different countries in Africa. The National HIV/AIDS Council must be involved in presenting the workshops in
each country in order to promote ownership of the concept. The roadshow would consist of a presentation of the framework and tools, as well as a strategic planning session on how it can be implemented in the country.

- **Financing of HIV/AIDS component**
The financing of an HIV/AIDS component will vary depending on the level of assessment and management interventions introduced. The funding of the assessment must come from the project budget. Management interventions can be financed from different sources. Opportunities to obtain funding from the Multi-Country HIV/AIDS Program and country UNAIDS Thematic Groups for community-based management interventions should be explored.
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<th>Definition</th>
</tr>
</thead>
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<tr>
<td><strong>ACTafrica</strong></td>
<td>AIDS Campaign Team for Africa</td>
</tr>
<tr>
<td><strong>AIDS</strong></td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td><strong>EA</strong></td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td><strong>EIA</strong></td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td><strong>EMP</strong></td>
<td>Environmental Management Plan</td>
</tr>
<tr>
<td><strong>HIA</strong></td>
<td>Health Impact Assessment</td>
</tr>
<tr>
<td><strong>HIV</strong></td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td><strong>IEC</strong></td>
<td>Information, Education and Communication</td>
</tr>
<tr>
<td><strong>KAP</strong></td>
<td>Knowledge, Attitude and Practices</td>
</tr>
<tr>
<td><strong>MAP</strong></td>
<td>Multi-Country AIDS Program</td>
</tr>
<tr>
<td><strong>NGO</strong></td>
<td>Non-Government Organisation</td>
</tr>
<tr>
<td><strong>PEAR</strong></td>
<td>African Region Project and Portfolio Environmental Assessment and Review</td>
</tr>
<tr>
<td><strong>TOR</strong></td>
<td>Terms of reference</td>
</tr>
<tr>
<td><strong>SSA</strong></td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td><strong>STDs</strong></td>
<td>Sexually Transmitted Diseases</td>
</tr>
<tr>
<td><strong>UNAIDS</strong></td>
<td>Joint United Nations Program on HIV/AIDS</td>
</tr>
<tr>
<td><strong>VCT</strong></td>
<td>Voluntary Counseling and Testing</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

1.1 Background to the study

"HIV/AIDS represents a serious crisis for development in large parts of the developing world, where it is rapidly reversing the social and economic achievements of the past half century. The epidemic now poses the foremost threat to development in Sub-Saharan Africa, a growing threat in Asia and the Caribbean, and a probable threat in some Eastern European countries."


In the light of the HIV/AIDS development crisis, the World Bank has made a commitment to play a stronger role in the effort against the disease. 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. In order to understand the most appropriate means of building the assessment of HIV/AIDS impacts into projects, the Bank, through AFTER1, ENVDR and ACTafrica, have commissioned a feasibility study into the potential for integrating HIV/AIDS impact assessment into environmental assessment (EA) in World Bank-funded activities in Sub-Saharan Africa (SSA).

This study sought to understand the relationship between HIV/AIDS, development and EA through answering the following questions:

- What are the impacts of development projects on HIV/AIDS when no prevention is built into project design?
- What is the potential margin of improvement on HIV/AIDS prevention when measures are built into development project design?
- How to optimize the use of HIV/AIDS Impact Assessment within EA in the Africa Region of the World Bank to maximize the prevention and monitoring of HIV/AIDS transmission?

The purpose of the report is thus to determine the feasibility of integrating HIV/AIDS into the EA process, provide evidence to support or dispute this option, and provide some recommendations on how this could occur. The target audience for the report is policy-makers within the Bank and operational staff undertaking development projects. The report will also be of interest to non-Bank stakeholders interested in methodologies for addressing HIV/AIDS impacts in development projects.

1.2 Methodology

The methodology followed in the study involved drawing on the knowledge and experience of stakeholders involved in EA, HIV/AIDS and development projects in SSA. This was done through literature reviews, contacting experts in the field, and interviewing World Bank and interested and affected parties in USA, Uganda and Ethiopia. The list of stakeholders interviewed through the project is presented in Appendix 1.
The literature reviews and interviews guided the project team on the practical options for integrating HIV/AIDS into EA. Using this as a basis for an understanding of the potential relationship between HIV/AIDS, development projects and EA, a potential framework for integration was developed. The fundamental components of the framework were reviewed against case studies of World Bank projects in Ethiopia and Uganda. To support this framework, a number of tools have been identified that may be used within the EA process to obtain a better understanding of potential impacts, mitigation options and monitoring and evaluation tools for HIV/AIDS.

1.3 Structure of the report

The report seeks to convey an assessment of the imperative for addressing HIV/AIDS in development projects, the feasibility of using the EA process for addressing HIV/AIDS and the possible process and tools that could be used in this assessment. As the report is aimed at a wide audience with different levels of knowledge regarding HIV/AIDS, development projects within the Bank, and the EA process, the next three chapters, and part of chapter 5 outline the current thinking and practices regarding these topics. The latter part of chapter 5 and chapters 6 & 7 describe the more practical aspects of integrating HIV/AIDS into the EA process. Chapter 8 concludes the report with recommendations on how to take the process of integrating HIV/AIDS into EA forward within the World Bank.
2 THE WORLD BANK'S APPROACH TO HIV/AIDS IN AFRICA

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.


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 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, 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 e.g. Lower Kihansi Hydroelectric power project (Appendix 2) and the Chad-Cameroon Pipeline project. The Kihansi Public Health Project was able to affect HIV/AIDS prevalence to the extent that the increase in the prevalence rate around the project was 50% slower than in the control areas. These projects provide important lessons on financing and capacity for HIV/AIDS in development projects.

Finally, 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.
In summary, the Bank is supporting strategic nation-wide HIV/AIDS programs (e.g. MAP), sector-wide responses (Transport sector initiative) and project-specific initiatives (integrating HIV/AIDS into EA). These three approaches are complimentary and ensure that there is multisectoral and effective coverage of HIV/AIDS (Figure 1). The different initiatives offer opportunities for mutual support especially in implementation and monitoring. As far as possible, there should be cooperation between the different processes to maximize their benefits.

Figure 1: The different levels of World Bank response to HIV/AIDS in Africa
3 THE HIV/AIDS EPIDEMIC IN AFRICA

3.1 HIV and AIDS

During the 1980s the most serious pandemic disease of modern times was first identified. The disease syndrome was called AIDS (Acquired Immune Deficiency Syndrome) and is caused by the Human Immunodeficiency Virus (HIV) which was first identified in 1983. This infection has now spread across the globe and is growing fastest in the developing world with over 40 million people currently living with HIV.

**Box 1: In a Nutshell – What is AIDS?**

AIDS, Acquired Immune Deficiency Syndrome, is a sexually transmitted disease (STD), that can also be transmitted through blood or from mother to baby. It is caused by a virus called Human Immunodeficiency Virus (HIV). It causes gradual weakening of the immune system so that the body can no longer fight off infections. People may seem healthy for many years while the virus multiples in their blood, but eventually they are likely to become ill with different diseases and cancers. The incubation period, or the period after infection before the virus causes disease, is highly variable. In the USA the average incubation time in adults is estimated at ten to eleven years. In developing countries this may be considerably shorter, perhaps seven years. In babies it is usually under two years. Once people develop full AIDS they usually (but not always) die within a matter of months. Before developing AIDS, they are likely to have had non-life-threatening infections and conditions that may come and go for several years. Whether someone has HIV infection with no symptoms or full AIDS, they are infectious to others through sex or blood. To date there is no vaccine against HIV infection or cure for AIDS, but there is intensive research worldwide and progress is continually being made.

3.2 HIV transmission

The majority of people become infected with HIV through sexual intercourse, either heterosexual or homosexual. In Africa, heterosexual transmission is more common. Therefore, the best way to prevent transmission of the virus is through abstaining from penetrative sex or by using a condom. Some people may also contract the virus through sharing unsterilised needles (a significant problem in Eastern Europe) and newborn infants may become infected from their mothers. Before there was proper testing of blood, a number of people also contracted HIV from blood transfusions.

Unlike many other infectious agents, HIV is a fragile virus that only survives in fresh human blood and other bodily fluids. In order to become infected with HIV, intimate contact must occur between two individuals for the virus to survive the transfer. There are extremely low levels of virus in human saliva and as a result kissing and the sharing of utensils does not result in disease transmission.
3.3 The natural history of HIV infection

At the time of becoming infected with HIV an individual may have transient, mild flu-like symptoms or experience no symptoms at all. In the first few weeks after infection the levels of the virus in the body increase rapidly and the person is highly infectious (i.e. the chance of transmission to others during sexual intercourse is high). However, in most people, the immune system will then establish a degree of control and reduce, although not eliminate, the virus in blood and bodily secretions. Typically an infected person will then go on to live with the virus for several years before the immune system begins to weaken and viral levels again start to rise. It is at this stage that the individual begins to show symptoms of AIDS. In the African setting, the vast majority of people will suffer from a combination of weight loss, swollen lymph glands, recurrent fevers, diaorhea, TB and fungal infections of the gastrointestinal system. In the absence of retroviral treatment AIDS patients usually steadily deteriorate until they die. The latency period (i.e. the time between infection and the development of AIDS) varies but in Africa, it is thought to be between 7 to 10 years (Figure 2). Once a patient has AIDS, they will usually die within a few months to two years.

![Figure 2 Cumulative probability of survival in Africa following initial HIV infection in baseline year 0 (Whiteside 1998).](image)

3.4 HIV/AIDS in Africa – the current status

Out of an estimated 40 million people in the world living with HIV, 28.1 million live in SSA (UNAIDS, 2001). A region that has only 10% of the planet’s population has 72% of the people infected with HIV and an estimated 4500 new infections occurring daily. Within SSA, HIV prevalence levels vary greatly with some West African states having low and stable levels of below 3% in comparison to seven countries, all in southern Africa, where one adult in five is infected. Altogether, there are now 16 countries in which more than one-tenth of the adult population aged 15–49 is infected with HIV. Botswana has the highest proportion of infected citizens in the world with 35.8% of adults infected and South Africa has the greatest absolute number of adults infected at 4.2 million (UNAIDS, 2000). Southern Africa is, therefore, at the very epicenter of the global HIV/AIDS pandemic.
The picture is, however, not entirely bleak. In Senegal, for example, HIV prevalence levels have remained stabilized at low levels for over a decade now proving that the epidemic can be held in check even with limited resources. Uganda has brought its estimated prevalence rate down to around 8% from a peak of close to 14% in the early 1990s with strong prevention campaigns, and there are encouraging signs that Zambia may be following a similar path.

Table 1: HIV/AIDS statistics and features at the end of 2001, UNAIDS 2001

<table>
<thead>
<tr>
<th>Region</th>
<th>Epidemic started</th>
<th>Adults &amp; children living with HIV/AIDS</th>
<th>Adults &amp; children newly infected with HIV</th>
<th>Adult prevalence rate</th>
<th>% of HIV-positive adults who are women</th>
<th>Main mode of transmission for adults living with HIV/AIDS**</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Africa &amp; Middle East</td>
<td>Late '80s</td>
<td>440 000</td>
<td>80 000</td>
<td>0.2%</td>
<td>40%</td>
<td>Hetero, IDU</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>Late '70s – early '80s</td>
<td>28.1 million</td>
<td>3.4 million</td>
<td>8.4%</td>
<td>55%</td>
<td>Hetero</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>Late '80s</td>
<td>1 million</td>
<td>270 000</td>
<td>0.1%</td>
<td>20%</td>
<td>IDU, Hetero, MSM</td>
</tr>
<tr>
<td>Latin America</td>
<td>Late '70s – early '80s</td>
<td>1.4 million</td>
<td>150 000</td>
<td>0.5%</td>
<td>30%</td>
<td>MSM, IDU, Hetero</td>
</tr>
<tr>
<td>Caribbean</td>
<td>Late '70s – early '80s</td>
<td>420 000</td>
<td>60 000</td>
<td>2.2%</td>
<td>50%</td>
<td>Hetero, MSM</td>
</tr>
<tr>
<td>Eastern Europe &amp; Central Asia</td>
<td>Early '90s</td>
<td>1 million</td>
<td>250 000</td>
<td>0.5%</td>
<td>50%</td>
<td>IDU</td>
</tr>
<tr>
<td>Western Europe</td>
<td>Late '70s – early '80s</td>
<td>560 000</td>
<td>30 000</td>
<td>0.3%</td>
<td>20%</td>
<td>MSM, IDU</td>
</tr>
<tr>
<td>North America</td>
<td>Late '70s – early '80s</td>
<td>940 000</td>
<td>45 000</td>
<td>0.6%</td>
<td>20%</td>
<td>MSM, IDU, Hetero</td>
</tr>
<tr>
<td>Australia &amp; New Zealand</td>
<td>Late '70s – early '80s</td>
<td>15 000</td>
<td>500</td>
<td>0.1%</td>
<td>10%</td>
<td>MSM</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>40 million</td>
<td>5 million</td>
<td>1.2%</td>
<td>48%</td>
<td></td>
</tr>
</tbody>
</table>

* The proportion of adults (15 to 49 years of age) living with HIV/AIDS in 2001, using 2001 population numbers

**Hetero = Heterosexual transmission – IDU = transmission through injecting drug use – MSM = sexual transmission among men who have sex with men
4 LINKAGES BETWEEN HIV/AIDS AND DEVELOPMENT

4.1 Introduction

The ultimate aim of development is social upliftment. This is the goal of the World Bank 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.

4.2 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. 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 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 prevalences' 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.

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.

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

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

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.

4.3 The impact of development on HIV/AIDS

When integrating HIV/AIDS 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 programs aimed at mitigating the impact of development projects on HIV/AIDS are not limited to only education and condom provision but rather such programs 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 2).

**Box 2: Case Example: Akosombo River Dam, Ghana, West Africa**

The Akosombo River Dam was designed to provide hydro-electric power for the Accra-Tema region of Tema. The project met its primary objective as well as reduced malnutrition and river blindness in the area. However, recent evidence shows that the area surrounding the Dam has been hard hit by the HIV/AIDS epidemic.

The construction of the Dam necessitated the displacement of approximately 80,000 farmers. Many of the male farmers obtained jobs on the construction site. With limited options, many female farmers ended up working as service workers in the hotels and bars built to cater for the construction worker. A number resorted to commercial sex to meet economic needs. When the construction was completed, many women migrated to other countries in West Africa. Surveillance surveys in 1985 showed that in the town of Agomanya, the administrative center of the rural Many Krobo district which abuts the Akosombo dam, HIV infection rates were five to ten times above the level of average HIV prevalence in Ghana.

Source: Topouzis and de Guerny 1999
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*Report 1*

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

<table>
<thead>
<tr>
<th>DETERMINANTS</th>
<th>ENVIRONMENT</th>
<th>INDIVIDUAL LEVEL IMPACTS</th>
<th>SEXUAL BEHAVIOUR</th>
<th>IMMEDIATE DETERMINANTS</th>
<th>DISEASE PROGRESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cultural attitudes &amp; practices</td>
<td>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</td>
<td>Sexual networks (no. of partners, partner change, &amp; concurrent partners) Prostitution Survival sex “Sugar daddies” Cultural practices (widow inheritance)early sexual debut, dry sex</td>
<td>Biological vulnerability (young girls) STD prevalence Low condom use Male circumcision Stage of infection Virus subtypes Unsafe blood supply Sharing needles</td>
<td>Poverty (exposure to infectious diseases, poor nutrition) Stigma Poor access to health care</td>
</tr>
<tr>
<td></td>
<td>Poverty Civil war Political instability Urbanization Low status of women Poor health services and limited coverage Lack of political will, national “denial”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERVENTIONS</th>
<th>ENVIRONMENT</th>
<th>INDIVIDUAL LEVEL IMPACTS</th>
<th>SEXUAL BEHAVIOUR</th>
<th>IMMEDIATE DETERMINANTS</th>
<th>DISEASE PROGRESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good governance Political recognition &amp; commitment Social cohesion Equitable distribution of wealth Religion Rural isolation</td>
<td>Decrease mobility of population Improve health care services and information dissemination Women empowerment programs Target drug users</td>
<td>IEC on sexual health High access to VCT Adapt cultural practices</td>
<td>Optimal STD management Condom promotion Availability of circumcision services MTCT programs Safe blood supply ARV therapy available</td>
<td>Treatment of opportunistic infections ARV therapy Preventive therapy Home-based care</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MONITORING &amp; EVALUATION</th>
<th>ENVIRONMENT</th>
<th>INDIVIDUAL LEVEL IMPACTS</th>
<th>SEXUAL BEHAVIOUR</th>
<th>IMMEDIATE DETERMINANTS</th>
<th>DISEASE PROGRESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development Index</td>
<td>KAP studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Whiteside and Sunter 2000)
Another factor that is pushing development agencies to review their interaction with the HIV/AIDS epidemic 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 programs 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 programs. Others have taken it further and have incorporated HIV/AIDS issues ranging from prevention to care and mitigation into all aspects of their activities.

4.4 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 all Bank-funded project. 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 World Bank has committed itself to fight the pandemic (Wolfensohn 2000). The nature of HIV/AIDS demands a multi-sectoral response and thus all development should contribute to fighting HIV/AIDS.
5 THE ENVIRONMENTAL ASSESSMENT PROCESS IN THE WORLD BANK

This chapter describes the project development process as carried out in the Bank. Project development within the Bank follows a systematic process from initial conceptualization through to implementation and monitoring. The EA process has been built into the project development cycle to ensure that environmental impacts are considered in the project cycle. The approach recommended in this feasibility study is that HIV/AIDS should be viewed as an issue addressed in the project cycle through the EA process.

5.1 The project cycle for Bank-funded projects

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.

By integrating HIV/AIDS issues into the EA, this allows issues to be brought on board throughout the project cycle. If an environmental specialist, equipped with the right tools, is maintained as part of the task team from the beginning and participates in the evaluation processes, they can promote the incorporation of HIV/AIDS into the project design, budget and implementation.

5.2 Environmental Assessment of Bank-funded development projects

Environmental Assessment 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 EA process are depicted in Figure 4.

Every project financed by the Bank must go through the EA 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.
Integrating HIV/AIDS issues into the Environmental Assessment process

Figure 3: The World Bank Project Cycle
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 Environmental Impact Assessment, 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 categorization

<table>
<thead>
<tr>
<th>Category</th>
<th>Project Features</th>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>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.</td>
<td>Requires a full environmental assessment</td>
</tr>
<tr>
<td>B</td>
<td>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.</td>
<td>Requires an environmental analysis restricted to the particular environmental issues associated with the project</td>
</tr>
<tr>
<td>C</td>
<td>Unlikely to have any adverse environmental impacts or impacts are likely to be negligible, insignificant, or minimal.</td>
<td>Requires no EA</td>
</tr>
<tr>
<td>FI</td>
<td>Involved investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts</td>
<td>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</td>
</tr>
<tr>
<td>Emergency Recovery Projects</td>
<td>Emergency recovery (O.P. 8.50)</td>
<td>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</td>
</tr>
</tbody>
</table>

The Bank’s GP 4.01 provides generic guidance on the types of projects and their categorization. This categorization may require amendments based on the impact of projects on HIV transmission. Most category A projects are likely to have equally high HIV/AIDS risks associated with them. Some category B projects may however have a higher HIV transmission risk than environmental risk. Projects such as rehabilitation or maintenance of highways or rural roads and tourism may require more in-depth impact assessments based on the HIV risk.
The flexibility within the EA process means that projects are not restricted by excessive environmental requirements. This flexibility will aid decision-making on HIV/AIDS issues as the project can have limited HIV/AIDS assessment according to what is required.

5.3 Linking HIV/AIDS to EA

“Human health and the health of the environment are mutually interdependent – adverse health impacts on communities resulting from a project undermine the principles of environmentally sustainable development” (World Bank 1997)

The need to consider HIV/AIDS issues and the existence of a broad EA process has led to the conclusion that EA may provide an ideal vehicle for addressing HIV/AIDS issues of development projects. This conclusion is supported by a number of facts:

1. **EA is a process that provides early screening of the impacts of all Bank-funded projects**

   The EA process has been developed to fit closely with the project development cycle within the Bank. As a result, the results of the EA can feed into the project at the design stage rather than being added-on at the end. By integrating HIV/AIDS into the EA 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 EA includes consideration of human health issues. Elements of HIV/AIDS issues have already been incorporated into Bank-funded projects, albeit on an ad hoc basis.**

   In support of environmentally sustainable development, the EA should ideally adopt a holistic approach to the environment. This will require consideration of biophysical, social and economic issues in the EA. As health is one of the factors assessed, many new EAs 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 EA process. As the EA process is established within the World Bank, integrating HIV/AIDS issues into EA will decrease unnecessary costs, resources and time 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 throughout the life of the project. This will allow for initial screening of
Integrating HIV/AIDS issues into the Environmental Assessment process

potential HIV/AIDS impacts; carrying out an HIV/AIDS specialist study (if necessary); implementing an HIV/AIDS Management Plan; and ensuring monitoring and evaluation at the end.

4. **HIV/AIDS prevalence in an area can lead to the failure of a development project and projects must take account of HIV/AIDS before development.**

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 manage and mitigate negative impacts. The EA process supports this pre-development assessment.

5. **EA already has an established process that can be adapted to include HIV/AIDS impacts.**

By integrating HIV/AIDS into EA, 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 all Bank staff. This will encourage the acceptance of a multisectoral approach to HIV/AIDS.

Based on these considerations, EA provides a logical framework within which to assess the impacts of development projects on HIV/AIDS.

5.4 **Alternative options to integrating HIV/AIDS issues into development projects**

Using the EA process to identify and manage the impacts of development on HIV/AIDS is one approach to addressing HIV/AIDS in development projects. The section above has highlighted our rationale for taking this approach. However, there are, of course, other ways in which HIV/AIDS may be addressed in the context of development projects and these are considered below. In assessing these alternative approaches, the key criterion was whether the particular methods would be best suited to assist the development project manager in reaching his/her goal of reducing the incidence and impact of HIV/AIDS on a particular project.

5.4.1 **Stand-alone HIV/AIDS Assessment**

As with Health Impact Assessment (HIA), a form of HIV/AIDS Impact Assessment could be carried out for projects. To date, there is no accepted process for an HIV/AIDS Impact Assessment. Methodologies used for HIA are based on EA principles and process. To develop a new process would be an unnecessary use of resources when EA offers the flexibility to build in an HIV/AIDS component. The application of a further procedure to the project process would slow down approval and require much larger teams on projects. This could have serious consequences for the time and costs of the project. Undertaking a stand-alone HIV/AIDS Impact Assessment would also require specialized staff to supervise and review the process.

The EA process is only now being recognized as an important component of project design across SSA. EA was initially a requirement placed on countries requesting World Bank funding. Now many countries in SSA (with World Bank support) are making a concerted effort to develop their own EA legislation and capacity. It is
Integrating HIV/AIDS issues into the Environmental Assessment process

highly unlikely that countries with limited resources will be willing to adopt a stand-alone HIV/AIDS Impact Assessment for their projects not funded by the World Bank. A further process is likely to meet with some resistance in countries and this will hinder the mainstreaming of HIV/AIDS into development in the Bank as well as in countries.

5.4.2 Early Warning Rapid Response System (EWRRS)
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.

If properly applied, the EWRRS may prove useful in strategic national planning but may be less useful on a development project level.

5.4.3 UNDP HIV/AIDS Impact Assessment Tool
This 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.

In order to produce such results, the AIA requires substantial data and rests on a series of assumptions on matters for which there is no data. Data required includes estimates of the numbers of people moving into and out of an area because of a project and the HIV prevalence levels of these groups. Computations are then made on the estimated number of cases of HIV infection and AIDS that are attributable to the project. Cost estimates of a case of AIDS are then made and multiplied by the estimated number of cases to arrive at the total cost of excess HIV/AIDS cases.

The appeal of the UNDP AIA is that it is designed to produce the type of information that project managers want, i.e. it allows them to compare the costs of HIV prevention and control to the cost of cases of AIDS cases in the absence of control. Such
Integrating HIV/AIDS issues into the Environmental Assessment process

information is ideal for advocating and establishing HIV/AIDS programs if it can be shown that there is a substantial cost/benefit from doing so.

However, one concern is that this AIA requires data and an understanding of sexual networking and HIV transmission patterns that is simply not available in an African context. In all but a few settings the paucity of good data and hence the need to make estimates would render the output of the AIA highly unreliable and of limited use. The situation may be very different in more developed countries but for most of Africa, this AIA will be of limited use.

The AIA has only recently been developed and has not been validated as yet. It therefore has to be considered a research tool and is not ready for implementation at an operational level.

5.4.4 Not highlighting HIV/AIDS in development projects
Another option would be not to highlight HIV/AIDS in development projects. In this case, the EA would not have any special mechanisms to identify HIV/AIDS issues. The issue would only be dealt with if it came out through initial screening and public participation. Such an option may be appropriate in highly developed countries where the public is empowered to participate and the standard of social services is sufficient to cater for vulnerable groups. In developing countries however, this situation is unlikely and HIV/AIDS is already having a serious impact. In addition, stigmatization and cultural taboos may prevent people from speaking openly about HIV/AIDS. In the face of the pandemic, action is required and HIV/AIDS should be highlighted as a particular concern.

If HIV/AIDS is not highlighted in EA, the process would not be adapted to assist task teams deal with it. The onus would then rest on the EA team to develop appropriate assessment, management and monitoring tools. This places an unfair burden on staff who may not be specialists in this arena. By taking a proactive approach to integrating HIV/AIDS into EA, the appropriate tools and guidelines can be developed to assist task teams, consultants, proponents and other stakeholders.

5.4.5 Conclusion
It is clear that there are a number of organizations working on the interrelationship between HIV/AIDS and development and attempting to design methods of mitigating the potential impacts. However, at the present time there isn’t a simple and easily usable instrument that can be used in all settings. The instruments discussed above are either too general or too technical for widespread application.
6 FRAMEWORK FOR INTEGRATING HIV/AIDS ISSUES INTO EA

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. This framework therefore focuses solely on HIV/AIDS within EA. This does not preclude a more holistic disease approach should the situation call for it. For many other diseases, there are better known pathways of transmission and infection (often environmental) that can be controlled. HIV transmission however, is tied in with sensitive social practices and is more difficult to identify and manage. For this reason, specific tools are described below to assist in understanding the possible HIV/AIDS impacts of development.

The proposed framework for integrating HIV/AIDS into the EA process is based on including additional tools and checks into the standard EA phases, to assist EA practitioners highlight the impacts on HIV/AIDS where it might previously have gone unnoticed. The stages of the EA 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. In order to integrate HIV/AIDS into EA, these tools need to be re-packaged so that they are used within the appropriate stages of the EA process and under the appropriate conditions.

The same tools can be applied to strategic and project-level environmental assessment. 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. The information provided in the next two sections presents some a general framework and a few tools required to bring HIV/AIDS issues into the EA process.

Section 6.1 discusses the principles that need to underpin the integration of HIV/AIDS into the EA process whilst section 6.2 provides a description of how HIV/AIDS issues may be taken into consideration within the phases of the EA process.

6.1 Principles for integrating HIV/AIDS issues into EA

There is no step-by-step recipe for integrating HIV/AIDS into EA. Each situation will need to be considered on its own. It is possible to guide staff to what is available for impact assessment, management and monitoring but ultimately the decision will rest with the project team to select the most applicable options for a particular situation. The principles below are designed to guide the integration and ensure that the process is carried out properly.

- The immediate (or proximal) risk factors for HIV/AIDS should not be assessed in isolation but consideration needs to be given to the broader economic and social drivers which lead to risky behaviour.
- Each development and community should be considered individually as unique characteristics may affect the success of management measures.
Integrating HIV/AIDS issues into the Environmental Assessment process

- An appropriate assessment should be done at the concept phase of the project development based on broad principles of efficiency and effectiveness.
- Vulnerable groups such as women, orphans, the aged and PLWHA require special consideration in development opportunities and public participation processes.
- HIV/AIDS must be recognized as a sensitive issue and handled appropriately to avoid negative impacts that can include stigmatization and ostracisation of people living with HIV/AIDS, reduced uptake of VCT and the failure of well-intentioned interventions.
- A comprehensive and creative approach to HIV/AIDS must be developed rather than relying solely on the traditional approaches of education and condom provision.
- Interventions to prevent HIV transmission and to mitigate the impact should be integrated as far as possible with other local initiatives whether governmental or NGO-based.
- The assessment and management plan must be culturally sensitive and acceptable to local populations.

6.2 Description of how HIV/AIDS issues would be taken into consideration within the phases of the EA process

The approach adopted in EA highlights the need for appropriate action depending on the level of environmental impact. In a similar vein, HIV/AIDS issues should be introduced into EA depending on the level of impact of the development project on HIV/AIDS prevalence. This is described in figure 5 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.

Within the early phases of the EA, the task team and EA experts will need to make a judgement on the potential impacts of the project on HIV transmission and the level of associated risk. This decision can be made with the support of tools which help the team identify risk environments and risk projects. In all aspects of the data collection and decision-making process, the valuable inputs from the local government bodies, civil society and private sector must be taken into account. In many cases, a great deal of the information required may already reside in in-country resources.

Should the project be required to undergo a detailed EIA, the environmental consultants must be advised of the need to assess the impact on HIV/AIDS. This must be laid out in the specific terms of reference to the consultant. In addition to the requirements for an assessment of HIV/AIDS impacts, the consultant may also be provided with some guidelines as to the process that could be followed in assessing HIV/AIDS impacts. These guidelines can also be used by the World Bank's EA review team in reviewing the EA report, to ensure that the HIV/AIDS component has been considered appropriately (Table 5).
An important part of the EA is the development and implementation of an EMP. The EMP should be included in the EA report. As the EMP includes management options for various environmental media, it should also include options for HIV/AIDS management. A number of interventions can be drawn from health sector management tools. The EMP should however also consider more developmental interventions that influence distal determinants of HIV/AIDS. The EMP, developed by the consultant, should include inputs from the proponent, community, and NGO’s. These developmental interventions will be specific to the project type e.g. labour recruitment, resettlement, occupational health and safety, etc.

As a final phase, a monitoring and evaluation system needs to be developed to ensure compliance and effectiveness of the management plan. The monitoring and evaluation can be carried out by the proponent, the World Bank and the community. With regards to HIV/AIDS impacts, an appropriate monitoring system that builds on local initiatives can be built into projects.

Figure 5 Decision-making pathways for assessing HIV/AIDS impacts in the EA process
### Integrating HIV/AIDS issues into the Environmental Assessment process

#### Table 5: Identification of HIV/AIDS issues within the phases of the EA process with roles & responsibilities

<table>
<thead>
<tr>
<th>Phase</th>
<th>Role</th>
<th>Responsibility in terms of HIV/AIDS</th>
<th>Supporting Tools</th>
</tr>
</thead>
</table>
| **Scoping**                  | 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 | 1. Checklist to identify projects with potential impacts  
2. Criteria for identifying potential impacts at the screening phase  
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. |
|                              |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) | 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. |
| **Environmental Impact Assessment** | TTL in consultation with the EA team | Provides the consultants with TORs. Helps the borrower mobilize resources, program and supervise | 1. HIV/AIDS inputs into TORs for consultants  
2. Principles for integrating HIV/AIDS issues into EA  
3. Guidelines on good practice in integrating HIV/AIDS issues into EA |
|                              |Reviewer                     | Provides feedback on the progress of the EA. Makes a judgement on the EA report and issues a clearance memo. | 1. Principles for integrating HIV/AIDS issues into EA  
2. Guidelines on good practice in integrating HIV/AIDS issues in EA  
3. Criteria for appraisal of EA report |
|                              |Consultant                   | Carry out an assessment of the potential impacts of the development project on the transmission of HIV/AIDS within the EA.  
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  
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.  
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. | 1. Principles for integrating HIV/AIDS issues into EA  
2. Good practice guidelines for conducting baseline studies and obtaining secondary data.  
3. Good practice guidelines for public participation  
4. Cause and effect model for HIV/AIDS transmission |
| **Environmental Management Plan Development and Implementation** | TTL in consultation with the EA team | Provides advice and support. Helps mobilize resources and supervises. | 1. Guidelines on HIV/AIDS management options  
2. Guidelines on roles and responsibilities  
3. Tools for monitoring and evaluating the interventions. |
|                              |Borrower                     | Responsible for ensuring the implementation of the EMP. Delegate responsibility for parts of the EMP to appropriate people within the country. | 1. Guidelines on HIV/AIDS management options  
2. Guidelines on roles and responsibilities  
3. Tools for monitoring and evaluating the interventions. |
7. TOOLS FOR SCREENING, ASSESSMENT, MANAGEMENT AND MONITORING:

Section 6.2 briefly outlines how EA can be adapted to address HIV/AIDS issues effectively. This section will go into details of each phase of the EA process and provide outline some of the supporting tools. The selection of tools is not complete but provides some indication of the potential tools and how they can be used in EA.

7.1 Screening

The purpose of the screening component of the EA is to provide the information and interpretation that will allow the developer/funder 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.

The categorization of projects occurs at the screening stage of the project cycle. The 5 categories described in section 5.4 above are currently applied to projects. The projects that generally fit into the different categories have very similar HIV/AIDS impacts as other environmental impacts. As such, the categorization of projects should not be too different when taking into account HIV/AIDS issues. Category B projects may be a bit problematic as some projects with low environmental impacts may have high HIV/AIDS impacts. In these cases discretion is needed in deciding whether to carry out an environmental analysis restricted to HIV/AIDS before developing an EMP. In making such decisions, the characteristics of the project, project area and affected community is important. Indicators of projects and communities at risk from HIV/AIDS are described below.

In the African setting, 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. 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 phase that there will be either the time or resources to collect primary data and instead opportunistic use should be made of whatever data is available. The screening study may however, highlight the need for the collection of such data during the subsequent impact assessment.

During the initial scoping 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. Some of the questions that will aid in uncovering these characteristics are described in box 3 below. 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.
Box 3: HIV/AIDS Screening Questions

A. Site Description

- In broad terms describe the community – urban/rural, isolated/on a main road, village based/scattered homesteads, levels of poverty.
- Describe the degree of social cohesion in the community, e.g. strong and homogeneous religious influences, traditional leadership structures, political instability, high crime levels
- What is the response of the authorities in regard to commercial sex work activities?

B. Potential for the project to impact on HIV transmission

- 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.
- What proportion of labour will be sourced locally and what proportion will be brought in and housed locally?
- What proportion of the imported labour will come with families?
- What will be the gender breakdown of the local and imported labour force?
- Is access to the area being substantially changed with this project or not?
- Will the number of trucks into or through the project area increase?

C. Status of the HIV and STI epidemics

- 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.
- 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?
- How informed is the community about HIV and STDs?
- What are the existing prevalence levels of STDs in the community?
- 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.
- What access does the community have to condoms and what are the usage patterns, e.g. free from clinics, social marketing, only commercial outlets?
- Where are the “hot-spots: for HIV transmission, e.g. bars, clubs, truck stops, massage parlours, hotels with hourly rates, etc.?
- What existing state, NGO and CBO initiatives are there in the area? What are they doing and what is the potential for collaboration?
Integrating HIV/AIDS issues into the Environmental Assessment process

The compilation and interpretation of the above information should allow the following questions to be answered:

- 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?
- Which sub-groups of the population are most susceptible and vulnerable?
- 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?
- 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?
- 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, a decision has to be made on which category the project falls into, i.e. the extent to which HIV/AIDS should be assessed. The matrix below can be used to help categorise the project and the level of assessment required (Figure 6).

![Matrix to determine the level of assessment required for a particular project and location](image)

Figure 6: Matrix to determine the level of assessment required for a particular project and location
Following the initial scoping exercise, one can 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.

7.2 HIV/AIDS Specialist Study

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 program. 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 (World Bank 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 a 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?

7.2.1 Methodology for conducting an HIV/AIDS Specialist Study

As a result of the diversity of development projects undertaken by the World Bank 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, we believe that generic guidelines, accompanied by checklists that are specifically designed for the development sector, can be developed and then customized for each project by the project personnel.

The methodology discussed below is not all original and instead builds on work done by others, in particular the European Union Toolkit and the South East Asian UNDP.
7.2.2 Outline of a tool for assessing the impact of HIV/AIDS

A. Description of project
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:

- Timelines for the various phases of the project
- Anticipated number of employees required for each phase
- How employees will be sourced and housed
- 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.
- Estimates of the number of people who may be relocated because of the project

B. Description of the site
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.

C. Description of the status of the HIV/AIDS and STD epidemics
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, Kaposis sarcomas; and specific studies done in nearby areas.

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.

In large projects, the modeling 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. Appendix 3 describes modeling tools and an application in the Doba Oil Project.

D. 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
Integrating HIV/AIDS issues into the Environmental Assessment process

conform to international norms and will set the framework within which HIV/AIDS issues will be handled.

Successful reduction in HIV transmission within the workforce and surrounding communities depends on appropriate planning and the adoption of preventive policies at this stage as attempts to “retrofit” projects after initiation with HIV/AIDS mitigation measures will be impossible in some circumstances and only partially achievable in others. Such policies are designed to reduce the “HIV risk environment”.

Issues that need to be addressed include the following:

- Wherever possible, source labour locally
- Where possible attempt to use as many women workers as possible
- When labour has to be sourced from remote locations, recruitment should occur either in that location or in a nearby city or town rather than permitting job seekers to come to the site for recruitment
- Wherever possible, allow workers to come with their families
- Where male workers are unable to bring their families, set up a system that will permit them to make regular return visits to their homes
- Anticipate the types and numbers of people that are likely to move into the area and devise strategies that will limit the influx and make it orderly and manageable. Such strategies may involve setting aside sites for housing and economic activities, restricting the number and location of liquor outlets, etc.
- Anticipate the number of local people who are going to be relocated and ensure that policies are in place that will ensure that the process is undertaken according to appropriate standards
- Identify likely “hotspots” for HIV transmission such as bars, clubs, truck stops and brothels so that HIV and STD prevention measures can be targeted.
- Design trucking practices so that as much trucking as possible is short haul, i.e. allowing truck drivers to return home every night or as frequently as possible.

E. 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 (Box 4).

7.3 Interventions for HIV/AIDS management

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). Most important in
Box 4: Principles to be considered in devising the management plan

- Proposed interventions must have been proven to be effective and should be prioritized according to anticipated cost-effectiveness.
- There needs to be meaningful consultation with local communities so that management measures are culturally appropriate and will have community support.
- Wherever possible, HIV/AIDS/STD management plans should be compatible with and integrated with local, regional and national initiatives and be implemented in consultation with government, CBOs, NGOs and potentially clients and suppliers.
- Any measures that need to be taken by sub-contractors need to be explicitly built into the TORs as it is very difficult to get contractors to implement measures once a contract has been signed.
- Issues of sustainability must be addressed.
- A monitoring and evaluation system should be devised and implemented.

Selecting management interventions is to ensure their acceptability to the local community. A range of management interventions is possible but the choice of the most practical options can only be done through consultation with local stakeholders (Box 5). Without local buy-in, the interventions will not be sustainable.

Box 5: Potential management interventions for HIV/AIDS

<table>
<thead>
<tr>
<th>Specific HIV prevention activities</th>
<th>Specific HIV/AIDS management &amp; mitigation activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC activities</td>
<td>Voluntary counseling and testing</td>
</tr>
<tr>
<td>Peer education</td>
<td>Treatment of opportunistic infections</td>
</tr>
<tr>
<td>Involving PLWHAs</td>
<td>Prophylactic therapies</td>
</tr>
<tr>
<td>Condom provision</td>
<td>Antiretrovirals</td>
</tr>
<tr>
<td>STD management</td>
<td>Home based care programs</td>
</tr>
<tr>
<td>Integration of HIV/AIDS into thematic projects (e.g. emergency training)</td>
<td>Medical Aid policies for workforce</td>
</tr>
</tbody>
</table>

Addressing “vulnerability” of the workforce

- Adjust labour recruitment policies to:
  - Support better distribution across gender groups
  - Promoting use of local labour
- Improve labour housing to accommodate families, integration into the community, and provide recreational facilities
- Gender equity
- Recreation provision
- Remittance provision
- Labour transport

Addressing “vulnerability” of the impacted community

- Outreach to sex workers
- Resettlement policies
- Access to STD services in the community
- Capacity building in the community
- Involvement of the community in IEC
- Social marketing of condoms

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. The case of the Carltonville
Integrating HIV/AIDS issues into the Environmental Assessment process (Appendix 4) demonstrates how having an outreach to commercial sex workers in the vicinity of gold mines, resulted in reduced STDs and HIV acquisition by the miners with subsequent savings to mine management. HIV/AIDS management in the broader community is not the responsibility of the project and instead opportunities to link with MAP initiatives should be sued for community initiatives.

Factors leading to the success of management programs

A: Choice of Interventions
- The intervention has a clearly defined audience
- The intervention has clearly defined goals and objectives
- The intervention is based on sound behavioural and social science theory
- The intervention is focused on reducing specific risk behaviours
- The intervention provides opportunities to practice relevant skills

B: Implementation
- There is a realistic schedule for implementation
- Staff are adequately trained for sensitivity to the target population
- Staff are adequately trained to deliver the core elements of the intervention
- Core elements of the interventions are clearly defined and maintained in the delivery
- Staff uses a variety of teaching methods, strategies and modalities to convey information, personalize the training and repeat essential HIV prevention messages

C: Organization
- There is administrative support for the intervention at the highest levels
- There are sufficient resources for the current implementation
- There are sufficient resources for sustainability
- Decision-makers are flexible and open to program changes
- HIV/AIDS intervention is embedded in a broader context that is relevant to target population

D: Participant Needs
- The intervention meets specific priorities and needs defined by the workforce/community
- For the target population selected, the intervention is culturally competent
- For the target population selected, the intervention is developmentally appropriate
- For the target population selected, the intervention is gender specific
- The intervention as implemented is acceptable to participants

(Source: CDC 1999)

7.4 Monitoring and evaluation

Monitoring and evaluation of HIV prevention and AIDS care programs tracks what is being done and whether the program 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 program 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.

**Basic steps in developing a monitoring system**

- **Determine objectives:** The objectives of the monitoring system must link directly with the HIV/AIDS mitigation plan and must be appropriate, feasible and measurable. The overall objective of most initiatives will be to limit the transmission of HIV caused by development projects. More specific objectives may relate to individual interventions implemented through the project e.g. improvement in the accuracy of HIV/AIDS knowledge through IEC programs, increased condom distribution and usage, etc.
- **Baseline data:** Good baseline data provides a foundation for monitoring and is necessary for determining positive or negative impacts of the development project after initiation. This data may be available from health sources or through the earlier HIV/AIDS Specialist Study, however it is more likely that there is poor baseline data to begin with. In such cases, a baseline survey or a participatory community needs assessment focused on HIV/AIDS may be necessary. The data required will be directly dependent on the objectives.
- **List activities and their relationship to overall strategy, and the tasks they will require**
- **Select indicators and set targets:** for each of the objectives associated with an activity, indicators and targets must be developed. Indicators must be easily understandable by local stakeholders.
- **Collect data:** Ideally the data collection process must be carried out by local people. To maximize the benefits, the data should be easily cross-referenced with data used in national HIV/AIDS planning initiatives.
- **Analyse data**
- **Take action**

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 6 lists some of the indicators that can be used to monitor HIV/AIDS.
### Table 6: Indicators for monitoring and evaluation

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Amount of resources received from the project for HIV/AIDS work in and around the project site</td>
<td>• Number of training sessions held, number and type of participants, types of sessions on e.g. HIV prevention education, counseling, coping with AIDS</td>
</tr>
<tr>
<td>• Amount of resources contributed by the community for HIV/AIDS work in and around the project site</td>
<td>• Number of campaigns held and number of people reached by the campaigns</td>
</tr>
<tr>
<td>• Amount of resources contributed from other sources (other projects, donor agencies, government, NGO’s) for HIV/AIDS work in and around the project site</td>
<td>• Number of condoms distributed to workforce, community groups, bars, health facilities</td>
</tr>
<tr>
<td>• Number of trained supervisors, availability of checklists, vehicles and field allowance</td>
<td>• Number and percent of establishments with condoms available throughout the year</td>
</tr>
<tr>
<td>• Number of staff committed to HIV prevention and AIDS activities</td>
<td>• Number of AIDS action committees in community</td>
</tr>
<tr>
<td></td>
<td>• Number of people counseled on HIV/AIDS</td>
</tr>
<tr>
<td></td>
<td>• Number of HIV tests done</td>
</tr>
<tr>
<td></td>
<td>• Availability of syndromic treatment for STD’s in surrounding clinics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change in HIV sero-prevalence in target groups</td>
<td>• Percent of adults (15-49 years) knowing sexual transmission route of AIDS</td>
</tr>
<tr>
<td>• Morbidity and mortality data</td>
<td>• Percent of adults knowing that a healthy person can carry HIV for at least 5 years</td>
</tr>
<tr>
<td>• Empowerment of vulnerable groups in the project area</td>
<td>• Percent of adults who say they have changed their sexual behaviour since they have heard of AIDS</td>
</tr>
<tr>
<td>• Percent of adults reporting STDs</td>
<td>• Percent of adults who consider condoms as an acceptable method of STD/HIV prevention</td>
</tr>
<tr>
<td>• Number of STD cases seen at health clinics</td>
<td></td>
</tr>
<tr>
<td>• Number of schoolgirl pregnancies</td>
<td></td>
</tr>
<tr>
<td>• Productivity data</td>
<td></td>
</tr>
<tr>
<td>• Impacts on worker benefits</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Process</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Number of EAs that have addressed HIV/AIDS</td>
<td></td>
</tr>
<tr>
<td>• Number of countries that have integrated HIV/AIDS into their own EA processes</td>
<td></td>
</tr>
<tr>
<td>• Number of community representatives actively participating in and contributing to the program</td>
<td></td>
</tr>
<tr>
<td>• Number of persons receiving capacity building through the project</td>
<td></td>
</tr>
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8. WORLD BANK CASE STUDIES

Two country case studies were carried out to collect data on examples of development projects and HIV/AIDS initiatives. A mission to Ethiopia was undertaken between 05 and 11 November 2000 and to Uganda between 27 January and 10 February 2001.

Three objectives were met through the country visits. Firstly, one of the objectives of the visits was to determine whom the role-players are who are involved in HIV/AIDS control at national through to local level and their capacity and programs for HIV/AIDS control. Within the Bank, other donor agencies and national governments, HIV/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. This included government structures, international agencies (including the Bank), NGOs and CBOs. The list of stakeholders interviewed is presented in Appendix 1.

It is apparent that in different sectors across both the World Bank and the national government departments, HIV/AIDS is being addressed to varying extents. Within countries, there are many resources mobilized and available to deal with HIV/AIDS. Many of the interventions are taking place at the community level, especially through religious and community-based organizations. At national government level there is progress but there tends to be little communication or partnership between different departments. Greater communication between different groups (especially at the national department level) is necessary to maximize the benefits and learning from these interventions. This will support the project team’s recommendations on collaborative work. The National HIV/AIDS Councils are generally situated at a high level in government and provide the ideal vehicle to co-ordinate responses. Through initiative such as the Multi-Country HIV/AIDS Programs these bodies are being strengthened. It is important for them to be well staffed and networked to support a multi-sectoral approach to HIV/AIDS.

Secondly, the mission assessed 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. Ethiopia and Uganda have their own Environmental Protection Authorities that are responsible for co-ordinating environmental assessment in the country. It is critically important for country stakeholders to support this approach, and thus their buy-in and involvement needs to be obtained. The visits were an opportunity to share ideas with stakeholders and understand the opportunities and constraints of their involvement.

In both countries visited, HIV/AIDS was recognized as a serious problem and environmental authorities expressed a willingness to adopt methodologies that would assist in dealing with the problem. A critical factor in the successful integration of HIV/AIDS into national environmental assessment processes will be partnerships between the different stakeholders in the country. In both countries, a National HIV/AIDS Council had been established to co-ordinate HIV/AIDS policies, plans, programs and projects. At present, there is insufficient communication between environmental authorities and the HIV/AIDS councils but this could change with the introduction of HIV/AIDS issues into EA. The National HIV/AIDS Councils can
provide useful advisory and review capacity for the environmental authorities. It will however be necessary to have some awareness creation and training within the environmental authorities themselves, to address HIV/AIDS.

Finally, a brief review of a few Bank-funded projects, which have been, are being or will be undertaken, was carried out. Projects underway were 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 was analysed. Similarly, new projects were assessed for the potential to incorporate HIV/AIDS issues in their development. Projects in the health sector provided the project team with an understanding of the types of interventions being put into place to deal with HIV/AIDS in Africa. Specific projects that were investigated through the missions were:

- Ethiopia Energy II project (Gilge Gibe Hydro-electric Power Station)
- Ethiopia Road Sector Development Program (RSDP)
- Ethiopia Multi-Country HIV/AIDS Program
- Lake Victoria Environmental Management Project
- Northern Uganda Social Action Fund

The details of these projects are presented in the country mission reports. In summary it was found that many projects are already addressing HIV/AIDS. This is however occurring on a project-by-project basis and there is no uniform or coherent framework for the HIV/AIDS component. Within the transport and energy sectors particularly, there is a clear recognition of the potential HIV/AIDS risk. This may be associated with the sensitivity around resettlement of people. In most new projects, HIV/AIDS is mentioned in the environmental assessment. In some of the other projects, there was a less integrated approach and the opportunity to include HIV/AIDS interventions was overlooked. The Lake Victoria Environmental Management Project was assessed to show how HIV/AIDS could be brought into the development project. The analysis of the Lake Victoria Environmental Management Project is presented in Appendix 5.

In both Uganda and Ethiopia, the World Bank had introduced Multi-Country HIV/AIDS Programs. Although an assessment of these programs was not part of the project brief, they were analysed to identify possible linkages between that initiative and EA. One of the linkages was the potential environmental impacts associated with health-care waste from HIV/AIDS prevention projects.

In attempting to deal with the repercussions of the disease on human health, there has been a necessary increase in healthcare facilities around the world. The potential impacts of this management intervention are becoming a cause for concern due to the scale of the problem. One consequence of more healthcare facilities is the associated increase in healthcare waste and the problems of healthcare waste management. Healthcare waste is found to be potentially hazardous to both human health and the natural environment.

Through health-care waste from HIV/AIDS prevention projects, waste workers and the public may be exposed to various human health risks such as HIV, Hepatitis B and Tuberculosis. AIDS can be transmitted through exposure to infected blood or blood products but there are no published cases of transmission of HIV through contact with
contaminated surfaces or dried blood. HIV dies rapidly in normal environmental conditions outside a living host, making transmission outside the health care setting unlikely.

In addition, health-care waste poses a risk to environmental quality. Although treatment and disposal of health-care wastes aim at reducing risks, indirect health risks may occur through the release of toxic pollutants into the environment through treatment or disposal:

- Landfilling can potentially result in contamination or drinking water.
- Occupational risks may be associated with the operation of certain disposal facilities.
- Inadequate incineration, or incineration of materials unsuitable for incineration can result in the release of pollutants into the air. The incineration of materials containing chlorine can generate dioxins and furans, which are classified as possible human carcinogens and have been associated with a range of adverse effects.
- Incineration of heavy metals or materials with high metal contents (in particular lead, mercury and cadmium) can lead to the spread of heavy metals in the environment. Mercury can interfere with the development of the fetal brain and is directly toxic to the central nervous system, kidneys and liver.

The development of a healthcare waste management plan does not occur in isolation and should be considered part of the project planning. Healthcare waste management is currently considered a part of the operations of healthcare facilities. However, in order to ensure environmentally sound management practices, an integrated healthcare waste management plan must be developed through the environmental assessment and management process.

In healthcare waste management, there are number of issues to be considered including:

- Occupational Health and Safety
- Packaging and Labeling
- Storage and Transport
- Disposal of medical waste (including waste minimization, segregation and recycling)
- Potential impacts of waste emission

Issues such as these must be considered in both development projects as well as HIV/AIDS prevention projects.

The country case studies provided useful motivations and examples for integrating HIV/AIDS into EA as well as significant resources for developing the framework for integration.
9 FACTORS NECESSARY FOR THE SUCCESSFUL INTEGRATION OF HIV/AIDS INTO EA

9.1 Financing of HIV/AIDS component

As EA is a routine part of normal project preparation, it should be financed from the same budget as the rest of the project preparation, engineering feasibility, etc. HIV/AIDS impact assessment, as part of EA, should be no different. If there is insufficient buy-in to integrating HIV/AIDS into other sector projects, there may be resistance to the additional costs that the project will have to bear upfront. From a project feasibility point of view, it can be argued that the upfront cost of assessing HIV/AIDS impacts and implementing management measures will outweigh the costs which will be paid later on, if no action is taken (Box 6). A number of new projects (Lower Kihansi Hydro-Electric Power project, Chad Cameroon Oil Pipeline Project, and the Lesotho Highlands Water Scheme) have budgeted for an HIV/AIDS component and the relative costs are minimal when compared to the broader project budget. Using separate funds to cover the cost of the HIV/AIDS component may create a perception that it is an add-on. By budgeting for the HIV/AIDS component within the project, this will ensure that it is truly mainstreamed into the project design.

Whilst this approach may be viable for large infrastructural projects, some of the smaller projects may require assistance in the early days of incorporation. In such cases, and for retrofitting of older projects, separate funds may need to be obtained for the HIV/AIDS component.

Box 6: Benefits to companies of investing in HIV prevention interventions

Case Example 1
In one study captured by UNAIDS, factory workers were trained to provide AIDS information and services in support of safer behavior for their colleagues, at a cost of US$ 6 per worker. The number of new infections was cut by a third as compared with factories that did not make this prevention investment.

Case Example 2
A group of mines in South Africa expanded their HIV prevention activities beyond their own workforce. Using mobile clinics to reach the community of women likely to be selling sex to the miners, the project offered free screening and treatment for sexually transmitted infections, and promotion of condoms and other safe behavior measures. Researchers estimate that this averted 235 HIV infections for the year, 195 of them among miners. The project cost approximately Rand 268 000 (US$ 38 000) but saved the company 25 times that amount in health care, lost productivity and other costs.

As HIV/AIDS is a cross-sectoral issue, there are likely to be other projects that have a similar mandate to consider HIV/AIDS. It is necessary at the design stage of the project for the task team to identify and interact with other stakeholders involved in related HIV/AIDS work. Three possible sources of funding should be explored:
9.1.1 Other donor agencies
In multi-funded, collaborative projects, other donor agencies may have HIV/AIDS interventions as their primary objective. In such cases, the HIV/AIDS component may be the responsibility of the other agency. It is however necessary for the project to run through acceptable World Bank processes and meet the requirements for EA approval.

9.1.2 Multi-country HIV/AIDS Programs
The World Bank has committed an amount of US$1000 million IDA funds to ensure that adequate resources are available to fund all sound national HIV/AIDS plans. The MAPs have streamlined procedures to permit faster preparation and funds would be available for all activities authorized by national plans. Funds will be channeled to all actors, including national AIDS programs, sector ministries, NGOs, communities, and the private sector. MAPs are currently being introduced into the first countries and many other countries are in discussions to take advantage of this funding scheme. The emphasis of the MAP is to support stakeholders down to the local level. Any group with a legitimate project may submit a proposal for funding from the MAPs. In theory, this could be translated to allow affected parties around another Bank-funded development project to access MAP funds for HIV/AIDS projects. MAPs thus represent another source of funding for the HIV/AIDS component of development projects. In a hypothetical case, a road rehabilitation project may be set up in an area. The task team may budget for HIV/AIDS management of the workforce and a limited budget for community IEC. In a parallel process, stakeholders in the surrounding community may be assisted in submitting a proposal for to their national AIDS council for MAP funds. The MAP funds could be used to supplement the road projects initial HIV/AIDS interventions in the community.

The MAPs are still in the early stages and it is difficult to assess how successful such a concept would be. Some constraints would be the different funding and approval mechanisms within a country that could slow down the process. These linkages need to be highlighted and opportunities for accessing funding clearly identified.

9.1.3 In-country public sector resources
HIV/AIDS is the primary responsibility of the government of a country. The efforts associated with development projects are additional initiatives and these should be carried out in collaboration with local Ministry of Health officials, clinics and hospitals. The government may take responsibility for financing some aspects of the HIV/AIDS work and this avenue should be explored at the start of a project. Current capacity and budgetary constraints in most countries suggests that this resource should not be depended on as a good source of funding.

9.2 Stakeholder buy-in

9.2.1 World Bank staff
The buy-in of World Bank staff to a multisectoral approach to HIV/AIDS is critical to the successful integration of HIV/AIDS into EA. During the early days of the EA process, developers had a negative attitude towards integrating environmental issues into projects and perceived this as a burden to the project. It is likely that some people may adopt a similar attitude to HIV/AIDS and view it as an additional obstacle
Integrating HIV/AIDS issues into the Environmental Assessment process

to getting a project approval. Such a situation can only be eliminated by increased awareness amongst Bank staff and through early consultation with operational staff that will have to implement the recommendations. Equipping staff with the tools to integrate HIV/AIDS into their projects will lead to empowerment and greater ownership of the process.

Interviews carried out by the project team with Bank staff in Washington, Addis Ababa and Kampala revealed that most staff have a high level of knowledge of the impact of the HIV/AIDS epidemic but less knowledge of the impact of development projects on HIV transmission. In general, staff recognized the need for action against HIV/AIDS but were concerned about the implications for implementing projects.

A further obstacle may arise if staff adopt a territorial view about EA, HIV/AIDS or development. The process can only be successful if there is co-operation between the different players within the Bank. It must be stressed that this is a learning process for all involved and sharing of information is valuable. ACTAfrica can play a key role as an objective facilitator to the integration of HIV/AIDS into EA.

9.2.2 Local and national government
Country support will be important to facilitate the implementation and monitoring of the process. There are a number of stakeholders within the public sector that play a role in integrating HIV/AIDS into EA.

National environmental agencies have been created, or are in the process of being established, in most countries. Projects financed by the Bank often have to go through an in-country approval process. The support of the national environmental agency will promote the integration of HIV/AIDS into development. The system used by the Bank might also be adopted by the countries themselves, ultimately leading to all impact assessments in a country considering HIV/AIDS issues.

National AIDS Councils are being established to implement national HIV/AIDS strategies throughout Africa. The presence of such an overarching body is a requirement for MAP funding and one can assume that most countries will introduce National AIDS Councils, if they do not already have them in place. The council is usually the co-ordinating body for HIV/AIDS activities in a country and administrator of a large portion of the funding allocated for HIV/AIDS. The council can thus be useful in directing the project team to available data, stakeholders, HIV/AIDS activities, and so forth in a project area. Staff of the council’s may be called upon to provide advice and review of large EAs in a country.

The Ministry of Health in a country is the primary implementing government body responsible for HIV prevention and HIV/AIDS management in a country. The Ministry is generally a good resource for HIV/AIDS surveillance data, advise and review of EAs.

At the local level, the Ministry of Health may support local clinics and hospitals in the project area. Depending on their resources, clinics and hospitals can provide voluntary counseling and testing (VCT), STD management, treatment of opportunistic infections, and free condoms to the community (including the project workforce). These health care facilities can be used to implement HIV/AIDS management.
Integrating HIV/AIDS issues into the Environmental Assessment process

measures. Local level health facilities are often under-resourced and in order to ensure that the development project does not place an unrealistic burden on them, the project may need to finance certain components of the facility’s HIV/AIDS work.

9.2.3 Other donor agencies
As a member of UNAIDS and the IPAAA, the World Bank has made a commitment to working with other donor agencies against HIV/AIDS. Most donor agencies are in a similar position to the Bank in trying to shift from a health-centered to a development-centered approach to HIV/AIDS. During the course of the study, representatives from other agencies expressed a great deal of interest in the World Bank’s work on integrating HIV/AIDS in EA. In principle, there was unanimous support for the approach and many people were keen to receive feedback on the project with the view to establishing its value for their own processes. In addition, the World Bank can learn from the experiences of other agencies.

The German Technical Co-operation’s Regional AIDS Program for Africa (GTZ/RAPA) introduced a multisectoral approach to integrating HIV/AIDS into their development activities (Dramé 2000). Some of the lessons learned from this program included:

- Integration of HIV prevention should be considered in all projects, especially when HIV might have an impact on project objectives
- Integration should take a project’s working structure into account
- HIV/AIDS activities should not be undertaken as parallel activities to existing ones; rather, they should be incorporated into existing activities.
- Institutional support is essential for successful integration of HIV/AIDS activities into projects in all sectors.
- To create active participation and support, the entire project staff must be sensitized, so that HIV/AIDS becomes part and parcel of a project’s long-term planning processes and plan of action.

Some of the large infrastructural projects are undertaken through proportional financing by different donor agencies. Often different agencies take responsibility for financing different aspects of a sector’s development. Collaboration between agencies is important to obtain maximum benefit from the initiatives.

9.2.4 Non-governmental organizations (NGOs) and community-based organizations (CBOs)
NGOs and CBOs are often very active in HIV/AIDS work at the community level. In many countries, the NGO sector is well developed and provides support for VCT, IEC, condom distribution, and occasionally provides medical services. NGOs and CBOs have an in-depth understanding of the local socio-economic environment and can often access local networks more effectively than outside consultants. These groups can be brought in as sub-consultants on projects to implement the recommendations of the HIV/AIDS Management interventions (Box 7). This will also lead to local capacity building.

9.2.5 Public participation
Public participation in the project is necessary to ensure its successful implementation and sustainability once the development has been completed. The public is important in defining the scope of the project (who should be involved in HIV/AIDS initiatives),
which groups are particularly vulnerable to HIV/AIDS, and what mitigation measures are required and appropriate in a specific area.

**BOX 8: Using local NGO capacity for HIV/AIDS Awareness in the Transport Rehabilitation Project, Uganda**

The Transport Rehabilitation Project (Feeder Roads Component: IDA Credit 2587 -UG/NDF 93) in Uganda has a component for AIDS education and mitigation targeting 12 local road contractors and communities along the roads under rehabilitation by the said contractors. A contract with TASO, Mbale for the provision of the above services was concluded in April – 98 and the consultant commenced training along 1st standard contract roads. They operated jointly with sister TASO Centres, NGOs and District Medical Officer’s staff in the project districts.

Through joint discussions with local opinion leaders, the consultant has developed education materials that offers solutions to the factors responsible for the spread of HIV (as identified by the communities).

The activities included:

1. HIV/AIDS awareness education for 12 work forces on the feeder roads
2. Group discussions with Contractors and staff
3. HIV/AIDS awareness seminars
4. HIV/AIDS awareness talks with village councils
5. For a for NGO’s on HIV/AIDS related activities
6. Research in constraints and solutions to problems related to HIV/AIDS in the communities

In this way, local NGO capacity was sourced to assist contractors carry out HIV/AIDS activities in the work force and communities surrounding the project.

HIV can have a long lag time before the onset of AIDS and death, often, longer than the length of a project. It is therefore important for the public to be able to maintain HIV/AIDS management once the project is completed. If the public are not adequately empowered and involved in the project, the HIV/AIDS initiatives may collapse once the project support is removed.

**9.3 Capacity building and education within and outside the Bank**

Integrating HIV/AIDS into development projects will require a degree of knowledge and sensitivity to the issues. The complex dynamics of sexual relationships demands an integrated and holistic approach. There is a great danger of HIV/AIDS being treated superficially within the EA, leading to unsuccessful interventions. In order to ensure that the issues are considered fully in the EA, it is necessary for Bank staff, as well as EA practitioners to well versed in HIV/AIDS issues. For the scoping, implementation and monitoring stages of the EA process, EA practitioners can be adequately supported through the availability of tools and guidelines for integrating HIV/AIDS into development projects. Within the EIA itself, health specialists need to be contracted to carry out the specialized HIV/AIDS impact study.
More generally, capacity building and education will be important to support the successful integration of HIV/AIDS into EA and project design.

9.4 Variability in projects and environments

The World Bank finances different types of projects across different sectors, and within different environments. The multiplicity of projects will have different impacts on the transmission of HIV and can play different roles in promoting positive action against HIV/AIDS. As a result, some projects may come under greater scrutiny than others. Certain projects, especially the large-scale infrastructural projects, have a greater impact on the transmission of HIV than projects in the education sector, for example. The environment in which the project is implemented may also be highly variable depending on cultural, institutional and socio-economic conditions. In addition, the availability of HIV/AIDS data and resources for management will be highly variable from place to place.

As a result of these dynamics, it is necessary to tailor the EA to be issues-driven. Applying a standard approach to impact assessment and standard management options is restrictive, may lead to misleading information for decision-making, and can ultimately lead to resistance in implementation.

Although more time-consuming, it is necessary for projects to be considered individually. It is possible to learn from past successes but these should only be applied once it has been verified that they are appropriate to the local conditions.

9.5 Lifespan of projects and long-term responsibility of developers

The nature of the HIV/AIDS epidemic is such that people who are HIV positive may remain healthy for many years for becoming ill with AIDS and ultimately dying. The epidemic thus has two identifiable stages viz. stage 1 when HIV transmission occurs and stage 2 when AIDS-related illness and death occurs. The period from HIV infection to AIDS can be in the region of 5-10 years.

Development projects also have a two-stage structure. Stage one of the project involves the initial construction/implementation and stage two is the operational stage. The greatest activity occurs during the construction stage of the project. This is also the stage when the most management interventions are implemented and monitoring take place. Once the first stage of the project is complete, there is a withdrawal of many resources and the operational stage tends to be much lower key. The operational stage is also associated with less management intervention and less monitoring. Large projects may have a lifespan of 5-10 years.

Taking these two cycles in parallel, it becomes clear that new HIV transmission would predominate during the construction phase and the subsequent AIDS-illness and death would occur during the operational phase. As there is less activity around the development during the operational stage, the impacts of HIV/AIDS are less visible. Contractors responsibilities tend to end with the construction stage (the duration of their contracts) and thus they assume no responsibility for the problems that develop as AIDS takes its toll.
Integrating HIV/AIDS issues into the Environmental Assessment process

This is a potentially serious problem as it raises concerns about the duration of responsibility. It is unfair to hold the developer responsible for an indefinite period. It is more practical to introduce a few long-term projects in the management plan. There should also be capacity building associated with the management plan so that the project can be sustained by the community once the developers have left.

9.6 Sustainability of HIV/AIDS programs

Sustainability of HIV/AIDS programs established to support development projects are at risk of being unsustainable if there is no ownership by the affected people. Communities may develop a dependency on the development to provide resources and thus the system falls apart once the development is completed.

In order to avoid this happening, there must be public participation and involvement throughout the project. Capacity building should be an important component of the management plan. In the case of community HIV/AIDS interventions, it is wise to get communities to invest their own resources in the project so that they take a personal interest and have a degree of ownership.

9.7 Integration with MAP

All the requirements described above can be closely tied with the MAP initiatives being established in many African countries. The process of integrating HIV/AIDS into development projects and the establishment of the MAPs can be mutually supportive and tailored to compliment each other.

As described in section 2 of the report, the MAP provides a mechanism for countries to access funds to support new and existing HIV/AIDS projects. MAPs have been rolled out in many countries in Africa and it is expected that at least 25 countries will have established MAPs in the future. Once fully established, it is envisaged that the MAP will provide the overall umbrella within which local initiatives can take place. In practice this should mean that a development project within a country will be able to build on HIV/AIDS initiatives already put in place through the MAP.

However, as the MAP initiative is still in its early stages, the implementation and outcomes of MAP are not yet being felt. Three scenarios currently exist. In the first case, countries such as Ethiopia and Kenya were the first to establish MAP programs and thus have already set-up some of the structures for addressing HIV/AIDS. The second group of countries is those that have recently signed agreements to introduce the MAP and are in the process of putting the appropriate institutional structures and processes in place for its implementation. The third case is that of countries that have not formally accepted the MAP but may do so in the future.

The integration of HIV/AIDS issues into EA will differ for these three groups of countries. In countries with established MAPs, the EA must be guided by the MAP framework. In countries with newly signed MAPs, the application of the framework for integrating HIV/AIDS into EA can guide the development of the MAP strategy in a country. Finally, in countries that do not have a MAP in place, the EA framework will be the main conduit for the World Bank to address HIV/AIDS in the country (Figure 7).
Integrating HIV/AIDS issues into the Environmental Assessment process

Countries 1: MAP provides the overall vision of HIV/AIDS activities in country

Countries 2: MAP established and implementation strategy being developed

Countries 3: No MAP in place

Application of HIV/AIDS in EA framework:
Framework provides some guidance for development of the MAP strategy

Application of HIV/AIDS in EA framework:
The framework provides the main conduit for World Bank HIV/AIDS interventions

Figure 7: Appropriate application of the framework for integrating HIV/AIDS into EA based on a country's MAP status

For countries with established MAP programs, the development project may provide a limited set of HIV/AIDS management interventions while the MAP provides additional complimentary interventions. This could range from MAP funding for projects through to MAP initiated coordination of certain HIV/AIDS activities in the area around a development project. In such cases, it is essential for the development project team to interactive with the MAP team very early in the project design.

For countries with newly established MAPs, providing support for an isolated development project may help the MAP to quickly establish some activities and achieve successes within a relatively short period of time. The association of the MAP with a specific development can provide useful case studies for further MAP-funded projects.

Countries without MAP in place will have less World Bank funding for HIV/AIDS. In these countries, the development project may be the first vehicle to bring HIV/AIDS management interventions into Bank-funded activities in the country. This can establish a good precedent for future MAP funding. Alternatively, the project can be seen as something that compliments national HIV/AIDS initiatives.
Integrating HIV/AIDS issues into the Environmental Assessment process

In practice, development projects may be able to offer a limited range of HIV/AIDS prevention and management interventions within a broader context in which the MAP provides other supportive activities.
10 CONCLUSIONS AND THE WAY FORWARD

The study outlined in this report assessed the feasibility of integrating HIV/AIDS issues into the EA process for Bank-financed development projects. The main finding of the study was that the EA process is an ideal vehicle to highlight HIV/AIDS issues in development projects and ensure that project planning design includes measures to decrease the transmission of HIV and have a positive impact on HIV/AIDS in Africa. Some of the motivations include:

- The EA process ideally takes place within the project cycle and can thus inform the project design from the beginning.
- The EA process has evolved over time from initially focusing on the biophysical environment to a broader, holistic vision of environmentally sustainable development. The health and well-being of people is an element of the sustainable development framework and is thus already being considered within EA.
- The EA process is well established within the World Bank and policies and processes are in place to ensure quality control.
- Building HIV/AIDS issues into the EA process will reduce time, costs and the number of approval processes.

A framework for integrating HIV/AIDS into EA has been presented. The framework is based on the need of EA practitioners for practical guidance on the tools required to address the HIV/AIDS issue. The findings of the study, as represented by the framework, suggest that the EA process requires very little modification to account of HIV/AIDS.

At the initial screening stage, World Bank categorization is still applicable but HIV/AIDS must be highlighted as one of the sensitive issues. Care should be taken when judging the categorization of certain category B projects that traditionally have a low impact on the environment but may have a significant impact on the transmission of HIV. During the scoping phase of the process, a number of characteristics of the host environment and the project can be used to determine the potential of the project to increase transmission of HIV. This initial phase will determine whether a project requires a full HIV/AIDS Specialist Study or an HIV/AIDS component in the Environmental Management Plan. In some of the smaller, more straight-forward projects, there is no need for a full HIV/AIDS Specialist Study and an HIV/AIDS component in the Environmental Management Plan would be sufficient.

Following the categorization and scoping, some projects may require an HIV/AIDS Specialist Study. The HIV/AIDS impact study should be viewed as one of the specialist studies within the EIA. Specialists with expertise in HIV/AIDS epidemiology should be contracted to carry out this part of the study. The results should include an HIV/AIDS management component and the study should be integrated into the final EIA and EMP reports.

There are a variety of HIV/AIDS management options available and being applied currently. The appropriate chose of interventions must be selected in consultation with the community and taking into consideration the cultural and social beliefs of the
user group. The implementation of management measures should be carried out in collaboration with local NGOs, CBOs, and clinics. There should ideally be an element of capacity building in the management interventions that will support the long-term sustainability of the HIV/AIDS management program once the development project is complete.

As a final step in the EA process, monitoring and evaluation tools would need to be developed. These can be used to measure the successful implementation of the management plan, as well as the success of the interventions.

In theory, integrating HIV/AIDS into the EA process is extremely feasible and highly recommended but in reality consideration must be given to financing of the HIV/AIDS component; variability of projects and environments; stakeholder buy-in; capacity building and education needs; the lifespan of projects and long-term responsibility of developers; and the sustainability of HIV/AIDS programs. None of these issues are insurmountable obstacles and awareness raising and participation of stakeholders will encourage support for integrating HIV/AIDS into EA so that development projects can have a positive impact on the HIV/AIDS epidemic.

10.1 Recommendations for the further integration of HIV/AIDS into EA

This project has been limited to determine the feasibility of integrating HIV/AIDS issues into EA. The findings of the study are in favour of this approach and there is now a need to take the research forward into practical application. Some of the requirements for future work include:

- **Customise tools for the different sectors**
  The framework presented in this report provides generic guidance on integrating HIV/AIDS into EA. In order to streamline the process for different sectors, it is recommended that a simple set of checklists and optional interventions be drawn up for each sector.

  Individual sectors have very similar projects and it will be possible to identify the key project characteristics and environments in which the projects occur. With this information, it may be possible to tailor the suite of assessment and management tools to include those most applicable to a specific sector. It may also be possible to build on the work already being done by individual sectors.

  Taking this approach, the roll-out must be carried out on a progressive basis. Priority sectors such as the infrastructure sectors should be considered first. Other sectors may require a different type of roll-out that only focuses on integration of HIV/AIDS into the management components of EA.

- **Test the framework through project application**
  Although this report presents a feasibility study for Africa, it is felt that the information provided here is applicable Bank-wide. The value of the framework described is that there are opportunities to use different tools flexibly depending on the specific context. As such, it is felt that carrying out the same exercise in other regions is not necessary. The best approach to begin roll-out within the Bank is to use the framework for a few pilot projects in different countries and
Integrating HIV/AIDS issues into the Environmental Assessment process

regions. Sub-Saharan Africa, South and East Asia and South America should all have pilot projects undertaken in the near future. The findings of these projects can be captured as a “lessons learnt booklet” by Actafrica for wide distribution within the Bank.

- Development of an EA Sourcebook Update
  As there is no single guideline document that provides a readily useable toolkit integrating HIV/AIDS issues into EA, it is recommended that an update to the EA Sourcebook be prepared. The update can summarise the approach and tools that are available to EA practitioners.

- Information dissemination within and outside the Bank
  Should the World Bank decide to integrate HIV/AIDS into the EA process, the information contained within this report and any future work would need to be disseminated both within and outside the Bank.

  With the Bank’s approval, this report can be distributed to all stakeholders consulted in the process and other interested parties. This can be undertaken by the consultant responsible for preparing the report.

- Capacity building of Bank staff
  In order for the framework to be implemented successfully, stakeholders in the EA process must be competent in integrating HIV/AIDS into the EA process. This will require an awareness and capacity building campaign within the Bank, national EA agencies, environmental consultants, and the public.

  As a priority, staff from environment, social and health departments must be presented with the framework in a workshop and be given an opportunity to discuss how they would use it.

  In the countries with the highest prevalence rate, World Bank resident missions should have at least one staff member who is able to advise on HIV/AIDS issues for all country projects. In Africa, this could be one of the staff most closely involved in the Multi-country HIV/AIDS Programs.

- Awareness and capacity building of government authorities
  It is important to involve national government representatives in this project. The main players will be the National HIV/AIDS council (as the co-ordinating body) and the environmental authority (as the implementing body). In addition, representatives from the health and other departments that are involved in HIV/AIDS should be made aware of the framework. Within national governments, a HIV/AIDS “roadshow” could be presented to representatives from the environmental authority in different countries in Africa. The National HIV/AIDS Council must be involved in presenting the workshops in each country in order to promote ownership of the concept. The roadshow would consist of a presentation of the framework and tools, as well as a strategic planning session on how it can be implemented in the country.
• **Financing of HIV/AIDS component**
  
The financing of an HIV/AIDS component will vary depending on the level of assessment and management interventions introduced. The funding of the assessment must come from the project budget. Management interventions can be financed from different sources. Opportunities to obtain funding from the Multi-Country HIV/AIDS Program and country UNAIDS Thematic Groups for community-based management interventions should be explored.
11 REFERENCES


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


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World Bank (1997) *Environmental Assessment Sourcebook Update: Health Aspects of Environmental Assessment*


### APPENDIX 1: LIST OF STAKEHOLDERS INTERVIEWED

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Bank Group</th>
<th>Title</th>
<th>Date Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jean-Roger Mercier</td>
<td>AFTE1</td>
<td>Principal Environmental Specialist (Africa Region) - World Bank Project Manager</td>
<td>22-26/05/2000</td>
</tr>
<tr>
<td>Bachir Souhlal</td>
<td>AFRHV</td>
<td>Principal Community Development Specialist (ACTfrica) - Liaison person in ACTfrica</td>
<td>23/05/2000</td>
</tr>
<tr>
<td>Serigne Omar Fye</td>
<td>AFTE1</td>
<td>Senior Environmental Specialist - Involved in EA review in PEAR</td>
<td>23/05/2000</td>
</tr>
<tr>
<td>Denise Vaudaine</td>
<td>AFTU2</td>
<td>Municipal Finance Specialist - Provides municipal management support for urban projects in Africa</td>
<td>23/05/2000</td>
</tr>
<tr>
<td>Nathalie Johnson</td>
<td>AFTE1</td>
<td>Environmental Specialist - Environmental management capacity building in Uganda</td>
<td>24/05/2000</td>
</tr>
<tr>
<td>John Roome</td>
<td>AFTKL</td>
<td>Director: Operational Quality and Knowledge Services (Africa Region)</td>
<td>24/05/2000</td>
</tr>
<tr>
<td>Nina Chee</td>
<td>AFTE1</td>
<td>Environmental Analyst - Environmental analyst on task teams for transport sector</td>
<td>24/05/2000</td>
</tr>
<tr>
<td>Andreas Schliessler</td>
<td>AFTT2</td>
<td>Transport Specialist - Involved in road provision. Task manager for the Chad Road Project</td>
<td>25/05/2000</td>
</tr>
<tr>
<td>Shimwaayi Muntemba</td>
<td>AFTI1</td>
<td>Senior Social Policy &amp; Public Participation Specialist - Involved in the retrofitting HIV/AIDS programs to development projects in Guinea &amp; Liberia</td>
<td>25/05/2000</td>
</tr>
<tr>
<td>Susanne Holste</td>
<td>AFTT2</td>
<td>Transport Specialist – Involved in transport project preparation</td>
<td>25/05/2000</td>
</tr>
<tr>
<td>Surjit Singh</td>
<td></td>
<td>Lead Operational Specialist – Ethiopia</td>
<td>06/11/2000</td>
</tr>
<tr>
<td>Antoine Lema</td>
<td></td>
<td>SIA and resettlement specialist - Africa region</td>
<td>06/11/2000</td>
</tr>
<tr>
<td>Norbert Mugwagwa</td>
<td></td>
<td>Country Operations Manager - Uganda</td>
<td>31/01/2001</td>
</tr>
<tr>
<td>John Oloya</td>
<td></td>
<td>Rural Development Specialist</td>
<td>31/01/2001</td>
</tr>
<tr>
<td>Peter Okwero</td>
<td></td>
<td>Health Specialist</td>
<td>31/10/2001</td>
</tr>
<tr>
<td>Victorio Ocaya</td>
<td></td>
<td>Transport Sector Specialist</td>
<td>29/01/2001</td>
</tr>
<tr>
<td>Mary Bitekerezo Kasozi</td>
<td></td>
<td>Social Development Specialist</td>
<td>30/01/2001</td>
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<thead>
<tr>
<th>Interviewee</th>
<th>Organisation</th>
<th>Title</th>
<th>Date Interviewed</th>
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<tbody>
<tr>
<td>Gebreselassie Okubagzhi</td>
<td>World Bank</td>
<td>Senior Health Specialist</td>
<td>07/11/2000</td>
</tr>
<tr>
<td>Agonafer Tekalegn</td>
<td>Christian Relief &amp; Development Association</td>
<td>Head Planning and monitoring Service</td>
<td>07/11/2000</td>
</tr>
<tr>
<td>Tewolde Egziabher</td>
<td>Environmental Protection Agency</td>
<td>General Manager</td>
<td>08/11/2000</td>
</tr>
<tr>
<td>Girma Degeffe</td>
<td>DKT</td>
<td>Project Director</td>
<td>07/11/2000</td>
</tr>
<tr>
<td>Mrs Tshedale</td>
<td>Environmental Protection Agency</td>
<td></td>
<td>09/11/2000</td>
</tr>
<tr>
<td>Mr Solomon</td>
<td>Environmental Protection Agency</td>
<td>Head of the EIA Section</td>
<td>09/11/2000</td>
</tr>
<tr>
<td>Mr Gebreselassie</td>
<td>Environmental Protection Agency</td>
<td></td>
<td>09/11/2000</td>
</tr>
<tr>
<td>Connie Osborne</td>
<td>UNAIDS</td>
<td>Country Program Advisor</td>
<td>09/11/2000</td>
</tr>
<tr>
<td>Emebet Azomussu</td>
<td>UNAIDS</td>
<td>National Program Officer</td>
<td>09/11/2000</td>
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</table>
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<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Organisation</th>
<th>Title</th>
<th>Date Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amsale Yilma</td>
<td>Ministry of Health</td>
<td>Project Manager</td>
<td>09:11:2000</td>
</tr>
<tr>
<td>Gladson Kayira</td>
<td>UNDP</td>
<td>Senior Field Specialist</td>
<td>10:11:2000</td>
</tr>
<tr>
<td>Alex Unsgaard</td>
<td>UNDP</td>
<td>Economist</td>
<td>10:11:2000</td>
</tr>
<tr>
<td>Nina Strom</td>
<td>UNFPA</td>
<td></td>
<td>10:11:2000</td>
</tr>
<tr>
<td>David Tommy</td>
<td>UNIDO</td>
<td>UNIDO Representative Ethiopia, Burundi, Rwanda and to the OAU and UNECA</td>
<td>10:11:2000</td>
</tr>
<tr>
<td>Hana Tebebe</td>
<td>USAID</td>
<td>PPHC Activity Manager</td>
<td>10:11:2000</td>
</tr>
<tr>
<td>Norbet Mugwagwa</td>
<td>World Bank</td>
<td>Country Operations Manager</td>
<td>31:01:2001</td>
</tr>
<tr>
<td>John Oloya</td>
<td>World Bank</td>
<td>Rural Development Specialist</td>
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<tr>
<td>Peter Okwero</td>
<td>World Bank</td>
<td>Health Specialist</td>
<td>31:01:2001</td>
</tr>
<tr>
<td>Victorio Ocaya</td>
<td>World Bank</td>
<td>Transport Sector</td>
<td>29:01:2001</td>
</tr>
<tr>
<td>Mary Bitekerezo Kasozi</td>
<td>World Bank</td>
<td>Social Development Specialist</td>
<td>30:01:2001</td>
</tr>
<tr>
<td>Sylvester Sempala</td>
<td>Ugandan Virus Research Institute</td>
<td>Director</td>
<td>29:01:2001</td>
</tr>
<tr>
<td>Elise Ayers</td>
<td>USAID</td>
<td>Lead Operational Specialist – Ethiopia</td>
<td>29:01:2001</td>
</tr>
<tr>
<td>Anne Fleuret</td>
<td>USAID</td>
<td>Performance Monitoring Specialist</td>
<td>29:01:2001</td>
</tr>
<tr>
<td>Oladapo Walker</td>
<td>World Health Organisation</td>
<td>Country Resident Representative</td>
<td>30:01:2001</td>
</tr>
<tr>
<td>Collins Mwesigye</td>
<td>World Health Organisation</td>
<td>Community Water and Sanitation Advisor</td>
<td>30:01:2001</td>
</tr>
<tr>
<td>David Kihumuro-Apuuli</td>
<td>Uganda Commission</td>
<td>AIDS Director</td>
<td>30:01:2001</td>
</tr>
<tr>
<td>Alfred Okema</td>
<td>Uganda Commission</td>
<td>AIDS Senior Economist</td>
<td>30:01:2001</td>
</tr>
<tr>
<td>John Okedi</td>
<td>National Environmental Management Authority</td>
<td>Executive Director</td>
<td>31:01:2001</td>
</tr>
<tr>
<td>Patrick Kamanda</td>
<td>National Environmental Management Authority</td>
<td>Environmental Inspector</td>
<td>031:01:2001</td>
</tr>
<tr>
<td>Justin Ecaat</td>
<td>National Environmental Management Authority</td>
<td>EIA Specialist</td>
<td></td>
</tr>
<tr>
<td>Kiira Ssese</td>
<td>LVEMP National Secretariat</td>
<td>Community Participation Officer</td>
<td>09:11:2000</td>
</tr>
<tr>
<td>Ogutu-Ohwayo Richard</td>
<td>National Agricultural Research Organization (NARO)</td>
<td>Director – Fisheries Resources Research Institute</td>
<td>09:11:2000</td>
</tr>
<tr>
<td>Konstantine Odongkara</td>
<td>NARO Fisheries Research Institute</td>
<td>Task Leader Socio-Economics sub-component lake Victoria Environmental Management Project</td>
<td></td>
</tr>
<tr>
<td>Mr Wairama</td>
<td>Ministry of Works, Housing and Communications</td>
<td>Roads Officer</td>
<td>09:11:2000</td>
</tr>
<tr>
<td>Ros Cooper</td>
<td>DFID</td>
<td>Health Advisor</td>
<td>06:02:2001</td>
</tr>
<tr>
<td>James Thornberry</td>
<td>DFID</td>
<td>Assistant Health &amp; Population Field Manager</td>
<td>06:02:2001</td>
</tr>
<tr>
<td>Justina Stroh</td>
<td>DANIDA</td>
<td>Program Officer</td>
<td>06:02:2001</td>
</tr>
<tr>
<td>Forough Olinga</td>
<td>FAO</td>
<td>IP National Facilitator</td>
<td>07:02:2001</td>
</tr>
<tr>
<td>Peter Ssebanakitta</td>
<td>Ministry of Works, Housing &amp; Communications</td>
<td>Commissioner (Roads)</td>
<td>07:02:2001</td>
</tr>
</tbody>
</table>
Integrating HIV/AIDS issues into the Environmental Assessment process

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Organisation</th>
<th>Title</th>
<th>Date Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Francis Omaswa</td>
<td>Ministry of Health</td>
<td>Director-General: Health Services</td>
<td>09:02:2001</td>
</tr>
<tr>
<td>Alex Opio</td>
<td>Ministry of Health</td>
<td></td>
<td>09:02:2001</td>
</tr>
<tr>
<td>Flavia Mpanga</td>
<td>Ireland Aid</td>
<td>Health Advisor</td>
<td>09:02:2001</td>
</tr>
<tr>
<td>Dan Temu</td>
<td>UNDP</td>
<td>Deputy Resident Representative</td>
<td>09:02:2001</td>
</tr>
<tr>
<td>Sam Ibanda</td>
<td>UNDP</td>
<td>Assistant Resident Representative</td>
<td>09:02:2001</td>
</tr>
</tbody>
</table>
**APPENDIX 2: THE KIHANSI PUBLIC HEALTH PROJECT**

**A success story: HIV prevention associated with a development project**

<table>
<thead>
<tr>
<th>Based on recommendations 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.</th>
</tr>
</thead>
</table>

**What did the Project consist of?**

<table>
<thead>
<tr>
<th>The Kihansi Public Health Project is 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 condom, technical and material support to STD clinics, provision of counselling services, and provision of voluntary HIV testing services. The project aimed interventions at a number of people in the workforce, community and health-care personnel. The STD control program was implemented in a total of 18 communities surrounding the project site.</th>
</tr>
</thead>
</table>

**What did the Project achieve?**

<table>
<thead>
<tr>
<th>Studies showed that sexual behaviour has hanged in a favourable direction since the baseline studies.</th>
</tr>
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</table>

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<tr>
<th>In a one-year period preceding a study in 1999, 73% had had only one sexual partner (as opposed to 60% in 1993).</th>
</tr>
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</table>

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<tr>
<th>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.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>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.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>The prevalence of HIV has 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 has 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%.</th>
</tr>
</thead>
</table>

**Obstacles in the implementation of the project**

<table>
<thead>
<tr>
<th>Some of the problems encountered during the implementation of the project:</th>
</tr>
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<tr>
<th>Late start. The first baseline health study was conducted in 1993. Mainly due to delays in the process of securing funding for the project, MUJAKI did not, however, commence until late 1996, more than a year after the construction activities had started at the LKHP. Ideally, this type of project should have</th>
</tr>
</thead>
</table>
Integrating HIV/AIDS issues into the Environmental Assessment process

commenced well ahead of the construction activities and the very significant socio-economic changes the local community was about to experience.

- **Time limitations on the construction site.** There is an inherent, apparent conflict of interest between a project like MUAJAKI and the production management on a major construction site like the LKHP. There have been several examples of workplace-related information and communication activities that have had to be postponed or cancelled because of this type of conflict. On the other hand, the MUAJAKI team has gradually been able to achieve the confidence and the trust needed to reduce the occurrence of this type of conflict to a relatively acceptable level.

- **Dealing with stigmatization.** In Tanzania, it is still uncommon that people are open about their HIV status. No well-known public figure has yet described him or herself as a person living with HIV. There is a general feeling that HIV infection represents a serious social stigma for a person who would be open about his or her situation. In line with this general sentiment, it has taken a long time to promote openness and create the necessary confidence and trust among the general public for them to start utilizing the free VCT services that have been made available.

- **Occupational health and safety.** Some of the companies involved in the construction of the LKHP have had a limited interest for basic health, safety and welfare issues affecting their workforces, and few of the companies have followed the occupational health and safety management approaches described by ILO.

- **Slow response to the recommended mitigation activities in the operational phase of the project.** Some important mitigation and monitoring activities have been recommended for the operational phase of the Lower Kihansi Hydropower Project. However, less than six months before the MUAJAKI Health Project is scheduled to wind down, no commitment has been made to fund or implement the recommended operational phase activities.
APPENDIX 3: MODELS AND PROJECTIONS

In order to optimally plan for and mitigate the impacts of the HIV/AIDS epidemic, planners from all sectors require forecasts which will give them an estimate on the future prevalence levels of HIV and AIDS and on the likely impacts. These forecasts are typically derived from mathematical models that use existing data and extrapolate into the future based on a number of assumptions.

There are a variety of models available that range from the very simple to the highly complex. The art of mathematical modeling, however, consists of finding the simplest possible model that will capture the essence of the problem under consideration. The danger is rarely that the model is too simple since if it is, and does not fit the data well, that will be obvious; the danger is rather that the model is too complicated for we know that with enough parameters we can fit almost anything and the model may have little to do with the underlying biology of the problem.

Traditional statistical modeling techniques have largely given way to what is called "dynamical modeling" because of the greater flexibility of the latter which is designed to capture and describe the past (known) history of the disease and to forecast the future (unknown) course of the disease. However, it must be borne in mind that any model is only a representation of the real situation and its usefulness in making forecasts is dependent on the model itself and on the reliability of the data that is used in the model input. In addition, confidence in forecast estimates declines as longer-term forecasts are made.

Modeling should therefore only be done by individuals who are familiar with the local situation and who have the capacity to select an appropriate model and to fully understand its strengths and limitations. In this context, models and projections may be used for a number of purposes including:

- Estimating current and future prevalence and incidence levels of HIV infection.
- Projecting future numbers of AIDS cases, AIDS deaths and orphans.
- Estimating the impact of the HIV/AIDS epidemic on various sectors of society or specific projects.
- Assessing the likely impact of various interventions through simulation exercises.

In the context of development projects, this information will be useful for advocacy purposes, for anticipating future scenarios/impacts and for determining the cost-effectiveness of a variety of interventions.

The proposed Doba Oil Project is an example where modeling showed that an STD intervention was highly cost-effective in terms of HIV cases averted. Computer simulations of HIV transmission were carried out based on the Doba-AIDS model. The model was used to estimate the HIV/AIDS hazard posed by the movement of 5000-6000 members of the construction force into Chad and Cameroon for 3-4 years, for the construction of Doba Oil Field and Pipeline. The project team recognized that associated with the predominantly male workforce were approximately 9000 wives, prostitutes and casual lovers who would move to the construction site area.
A detailed analysis of the potential for the spread of HIV was carried out to provide estimations of prevalence for comparing the effectiveness of alternative methods of preventing HIV/AIDS transmission in Chad, as well as Cameroon and surrounding countries. The model calculated the increase in HIV transmission because of the project as well as an 80% reduction in HIV transmission through proposed interventions.

The results of the model showed an increase in the number of HIV infections among men of 262 with the project. The expected number of infections would have been 63 without the project. Therefore the project accounted for 199 additional infections. Taking into account proposed mitigation interventions, the additional infections would have been decreased to 40. Similarly the model showed that 361 additional infections would occur among women due to the project. This number would be reduced to 72 infections by the interventions. Based on these results, recommendations were made for developing preventive measures as part of the project scheme.

The model thus provided a justification for investing in HIV/AIDS prevention in a development project.
APPENDIX 4: A SUCCESS STORY: HIV PREVENTION IN MINING COMMUNITIES

The Lesedi Project

Based on evidence from recent studies that showed that STD treatment interventions may reduce the transmission rates of HIV, a consortium of mines and organizations in the gold mining area around Cartlonville, South Africa developed the “Lesedi” project.

What did the Project consist of?

The intervention included syndromic management of STDs in miners, periodic presumptive treatment of women at high risk of infection (mainly commercial sex workers), sexual health promotion, counselling and promotion of male and female condom use. Most significantly, the Project has consistently worked hard to achieve a high level of management support from mining companies and union representatives. Mining management and unions were kept informed of the developments and provided with detailed evaluations at each stage of the Project (including costs and estimated savings).

What did the project achieve?

The results from the Project are impressive. In miners, gonorrhoea and chlamydia were reduced by 42% and a 77% reduction in genital ulcers was observed (see Figure 1). In mine hostels, reduced rates of symptomatic STDs were also observed. Among the women, similar dramatic declines in the STDs were seen (see Figure 2).

Figure 1.

<table>
<thead>
<tr>
<th>Prevalence %</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD</td>
</tr>
<tr>
<td>GC or CT</td>
</tr>
<tr>
<td>GC</td>
</tr>
<tr>
<td>CT</td>
</tr>
<tr>
<td>Genital ulcers</td>
</tr>
</tbody>
</table>

STD decline among miners in intervention area

Lesedi Project, South Africa
What did it all cost and what were the savings?

A cost-effectiveness assessment was conducted using a computer model to estimate the number of HIV infections that would have occurred in the community. It was estimated that 235 HIV infections were averted (40 women and 195 men), i.e., a 46% decrease in estimated HIV infections. In terms of averted HIV/STD-related medical costs, an estimated R2.34 million was saved. This was a massive saving compared with the relatively small cost of the intervention.

- Reduction in new HIV infections = 46%
- Savings in medical costs = R2.34 million
- Cost of intervention = R268,000

What can we learn from the Lesedi Project?

The Project has shown that targeted STD interventions are a cost-effective means of preventing HIV infections. Urgent means of achieving HIV prevention are required now and cannot wait for the years required before behavioral changes such as increased condom use and reduced rates of partner change are possible.

Apart from a dramatic impact on STDs, the Lesedi Project has also taught us much about the value of motivating managers in industry and union representatives to support cost-effective interventions that prevent HIV infection in employees and the communities in which they live.
Project description

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 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
- 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 3 countries, only one aspect has been selected for discussion in this case-study document, viz socio-economic development of fisheries landing sites.

Poverty alleviation as a means of decreasing HIV transmission

Evidence from numerous studies conducted around the world clearly demonstrate that the transmission of HIV and other STIs is inextricably linked to poverty. Poor people have less access to information and to condoms. Poor women in particular are relatively disempowered to the extent that they are often unable to protect themselves from STDs and HIV. In poor communities in Africa it has been well documented that women frequently resort to swapping sex for money or gifts of some nature whether it be food or school fees for the children. This phenomenon is known as survival sex. Therefore, addressing poverty will in the long term, eliminate the underlying drivers of the HIV epidemic and hence this project is likely to have a positive, long-term impact on HIV transmission. However, urgent and short-term measures are required as poverty alleviation is a long term goal. This document examines some of these proximal factors that give rise to HIV transmission and not the more distal factors.

Current Situation: Description of Masese, a typical Lake Victoria landing site

Masese is a landing site situated near to the town of Jinja. Fishing boats from the islands land on the undeveloped beach carrying cargo consisting mainly of fish,
Integrating HIV/AIDS issues into the Environmental Assessment process

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 overnighthing 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 AIDS migrate to such areas as they are unknown 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 get left over food. Sometimes they get free accommodation and may use this to entertain men or rent out the room to others in order to supplement their meager incomes.

There is a small health post run by one nursing sister. The health post is visited by about 100 patients a month. Although the sister diagnoses STDs, she is unable to treat these patients as she has only penicillin and none of the other drugs required according to the Ugandan STD treatment guidelines. The only other antibiotic in the clinic is cotrimoxazole. Patients with symptoms of an STD 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 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.

**Integration of HIV/AIDS issues into the development of landing sites**

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 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 STDs. 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.

Human and financial resources required for anti-HIV measures may be accessed through a variety of means. For example, communities could be assisted by social upliftment projects in accessing World Bank funds through the MAP project which is specifically targeted at such communities.
Integrating HIV/AIDS issues into the Environmental Assessment process

There are a number of aspects to this project in which HIV/AIDS issues should be considered:

- 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.

Potential direct negative impacts of the project itself.

If the landing sites are simply expanded and improved at a technical level without consideration of the impacts on HIV transmission, then, for all the reasons listed above, it is probable that these sites will become nodes of HIV and STD transmission between the island and mainland communities.

Opportunities for the project to reduce transmission of HIV.

Consideration of HIV/AIDS in this project is likely to lead to simple but effective measures which will decrease the transmission of HIV and some measures are listed in table 1.

Table 1. List of potential HIV prevention measures.

<table>
<thead>
<tr>
<th>Potential HIV prevention measure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free condom distribution</td>
<td>Many donor organisations provide funding for condoms. May be done through clinics or other sites</td>
</tr>
<tr>
<td>Access to social marketing of condoms</td>
<td>This seems to already be available in the small shops in the village</td>
</tr>
<tr>
<td>Access to IEC materials</td>
<td>A range of media may be used including popular theatre, posters, etc.</td>
</tr>
<tr>
<td>Establish peer educator programs</td>
<td>NGOs are able to train and establish such programs among the fishermen and other groups. PLWHA should be encouraged to participate</td>
</tr>
<tr>
<td>Decrease stigma</td>
<td>May be done through IEC approach and using PLWHA</td>
</tr>
<tr>
<td>Optimal management of STIs</td>
<td>Accessing funds such as the MAP funds could be used to support local clinics with syndromic training and provision of drugs.</td>
</tr>
<tr>
<td>Access to voluntary counselling and testing</td>
<td>As with STD treatment.</td>
</tr>
<tr>
<td>Targeted interventions, e.g. to local sex workers</td>
<td></td>
</tr>
</tbody>
</table>

Opportunities for the project to identify those affected by HIV/AIDS.

The landing sites are all meant to have "Beach Coordination Committees" who regulate fish harvests. There is substantial emphasis in the Project Concept Document
on community participation in this project and because of this HIV/AIDS issues are likely to come to the fore in those communities affected by the epidemic. However, it must be recognised that those most seriously affected by the epidemic, i.e. HIV-infected individuals, AIDS orphans and female-headed households may not have equal access to community participation processes. The stigma and culture of silence that still clings to the HIV/AIDS epidemic also reduces the chances of such issues being openly raised unless specific steps are taken to ensure that the consultation process is inclusive. There will have to be sensitivity towards these issues when the community participation process is designed and implemented.

**Opportunities for the project to mitigate the impacts of HIV/AIDS on people infected and affected by the epidemic.**

Ugandans have been living with the HIV/AIDS epidemic since the early 1980s and hence the nation has already gained substantial experience in managing and caring for the sick and dying. Unfortunately, limited resources have seriously constrained the range of measures that may be implemented and this situation will change slowly as socio-economic development improves. However, there are a range of cost-effective activities that should be considered and these are listed in table 2.

Note that many of these measures are community-based and hence would fit in very well with the aims and approaches embodied within social action fund projects.

**Table 2. Potential measures for the mitigation of HIV/AIDS in the affected communities**

<table>
<thead>
<tr>
<th>Potential HIV/AIDS mitigating measures</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment of HIV-related illnesses</td>
<td>World Bank MAP funds or other sources may be accessed to stock clinics with appropriate medications.</td>
</tr>
<tr>
<td>Establish TB DOTS programs</td>
<td>This is government policy and community based DOTS programs have proved very effective elsewhere in Africa</td>
</tr>
<tr>
<td>Establish home-based care programs</td>
<td>There are numerous examples of such community based programs.</td>
</tr>
<tr>
<td>Prophylactic therapy (cotrimoxazole and INH)</td>
<td>The benefit of these therapies has been proven and are being implemented across Africa.</td>
</tr>
<tr>
<td>Monitoring and evaluation of programs</td>
<td>Community-based approaches to such monitoring and evaluation may be appropriate in this setting</td>
</tr>
<tr>
<td>Antiretroviral treatments</td>
<td>Likely to be too expensive in the near future but access programs are being implemented in Africa and these could be accessed</td>
</tr>
<tr>
<td>Decrease stigma</td>
<td>May be done through IEC approach and using people living with HIV/AIDS</td>
</tr>
</tbody>
</table>