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The World Bank

Report No: 20608-ER

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 31.4 MILLION

(US$40.00 MILLION EQUIVALENT)

TO THE

GOVERNMENT OF ERITREA

FOR

HIV/AIDS, MALARIA, STDS & TB (HAMSET) CONTROL PROJECT

November 27, 2000

Human Resources Development, Group IV
AFC06
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective November 8, 2000)

Currency Unit = Eritrean Nafka
1 ERN = US$0.10
US$1 = ERN 9.77

FISCAL YEAR

January December

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immuno-deficiency syndrome	MOH	Ministry of Health
ARI	Acute Respiratory Infection	MOI	Ministry of Information
BOD	Burdent of Disease	MOLHW	Ministry of Labor and Human Welfare
CAS	Country Assistance Strategy	MTCT	Mother-to-Child Transmission
CDC	Communicable Disease Control	NACP	National AIDS Control Program
CFA	Community Facilitation Assistant	NCEW	National Confederation of Eritrean Workers
DCA	Development Credit Agreement	NGO	Non-Governmental Organization
DDT	Dichlorodiphenyl Trychloroethane	NORAD	Norwegian Agency for Development Cooperation
DLY	Discounted Life Year	NUEW	National Union of Eritrean Women
DOE	Department of Environment	NUEYS	National Union of Eritrean Youth & Students
DOTS	Directly Observed Treatment Stratgy	NUW	National Union of Workers
IECD	Integrated Early Childhood Development	PHC	Primary Health Care
EDC	Essential Drug List	PIM	Project Implementation Manual
EE	Environmental Evaluation	PIP	Project Implementation Plan
EPI	Expanded Program for Immunization	PMP	Pesticide Management Plan
ESAMI	Eastern and Southern Africa Management Institute	PMU	Project Monitoring Unit
FGM	Female Genital Mutilation	PSI	Population Services International Program
GDP	Gross Domestic Product	SCW	Social Change Worker
GOE	Government of Eritrea	SSA	Sub-Saharan Africa
HAMSET	HIV/AIDS, Malaria, Sexually Transmitted Diseases and Tuberculosis	STDs	Sexual Transmitted Diseases
HIV	Human Immune-Deficiency Virus	TA	Technical Assisstance
HNP	Health, Nutrition, Protection	TB	Tuberculosis
IBRD	International Bank for Reconstruction & Development	UNAIDS	United Nations Acquired Immuno-deficiency Syndrome
ICR	Implementation Completion Report	UNFPA	United Nations Fund for Population Activities
IDA	International Development Association	UNHCR	United Nations High Commissioner for Refugee
IEC	Information, Education & Communication	UNICEF	United Nations Children's Fund
ITM	Insecticide Treated Material	USAID	United States Agency for International Development
LACI	Loan Administration Change Initiative	WDR	World Development Report
M&E	Monitoring & Evaluation	WHO	World Health Organization
MLG	Ministry of Local Government	ZCC	Zoba Coordination Committee

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ERITREA
HIV/AIDS, MALARIA, STDS & TB (HAMSET) CONTROL PROJECT

CONTENTS

Annexes

MAP(S)
IBRD 31065.

ERITREA

HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

Project Appraisal Document

Africa Regional Office
AFTH4

Date: November 27, 2000	**Team Leader:** Eva Jarawan
Country Manager/Director: Oey Astra Meesook	**Sector Manager/Director:** Arvil Van Adams
Project ID: P065713	**Sector(s):** HB - Basic Health, HT - Targeted Health
Lending Instrument: Specific Investment Loan (SIL)	**Theme(s):** Social Development; Health/Nutrition/Population
	Poverty Targeted Intervention: Y

Project Financing Data
[ ] Loan [X] Credit [ ] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:
Amount (US$m): 40.00

Proposed Terms:
Grace period (years): 10 **Years to maturity:** 40
Commitment fee: 0.5% **Service charge:** 0.75%

Financing Plan: Source	Local	Foreign	Total
BORROWER	7.53	0.92	8.45
IDA	15.41	24.59	40.00
LOCAL COMMUNITIES	1.55	0.00	1.55
Total:	24.49	25.51	50.00

Borrower: GOVERNMENT OF ERITREA
Responsible agency: MINISTRY OF HEALTH
Project Management Unit (PMU) based in the Ministry of Health (MOH), in coordination with the Ministry of Education (MOE), Medical Services of the Ministry of Defense, Ministry of Labour and Social Welfare (MOLSW), Ministry of Tourism, Transport and Communication Ministry of Local Government, Ministry of Information, Ministry of Agriculture, Ministry of Finance, Ministry of Land, Water and Environment and Zoba Governments.
Address: PMU, Ministry of Health, Asmara, Eritrea
Contact Person: Ministry of Health, Dr. Eyob Tekle
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Other Agency(ies):
National Union of Eritrean Youth and Students (NUEYS), National Union of Eritrean Women (NUEW), and National Confederation of Eritrean Workers (NCEW).

Estimated disbursements (Bank FY/US$M):

FY	2001	2002	2003	2004	2005	2006		
Annual	1.50	9.00	10.00	8.00	7.00	4.50		
Cumulative	1.50	10.50	20.50	28.50	35.50	40.00		

Project implementation period: 5 years
Expected effectiveness date: 03/15/2001 **Expected closing date:** 03/15/2006

A. Project Development Objective

1. Project development objective: (see Annex 1)

To reduce the mortality and morbidity of the Eritrean population due to HIV/AIDS, malaria, sexually transmitted diseases and tuberculosis (HAMSET) through an increase in utilization of quality, effective and efficient health services for HAMSET prevention, diagnosis and treatment, supported by healthy practices.

2. Key performance indicators: (see Annex 1)

The following expected outcomes would indicate that the project had been successful in meeting its development objectives:

- a stabilization in the HIV seroprevalence among adults aged 15-24 years.
- a reduction in Malaria death rate (in under five and pregnant women).
- increase in the proportion of diagnosed and successfully treated new smear-positive TB patients.
- a reduction in prevalence of severe anemia in women of child-bearing age.

The following expected outputs would indicate that project activities are being implemented adequately:

- HAMSET managers at Zoba level can generate up-to-date epidemiological reports of their Zoba.
- malaria epidemics detected within two weeks of onset and properly controlled.
- children under five and pregnant women sleeping under insecticide treated nets.
- pregnant women taking malaria prophylaxis.
- population has access to condoms.
- primary, secondary and technical education facilities using the new health education curriculum.
- bednets re-impregnated.
- STD cases correctly treated.
- blood transfusions are safe.
- health staff is trained on HAMSET diagnostic and treatment.
- facilities in which basic drugs to treat HAMSET (AIDS- opportunistic infections) are available.
- fever cases are managed correctly at home.
- villages have community-managed HAMSET prevention and control interventions.
- operational studies are undertaken.
- research and monitoring findings are included in annual policy and planning reviews.

Studies to determine base-line data for most of the indicators listed above have been initiated or will be carried out during the first year of the project. Target increments will be agreed upon after the first year of implementation and will be calculated over those base-line figures. A very detailed and comprehensive list of indicators to monitor progress of activities in different agencies has been agreed upon with Government. Such list is included in the relevant PIM chapters.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)
Document number: 15324 **Date of latest CAS discussion:** 02/05/96
(An Interim Transitional Support Strategy was discussed on 11/22/00)

The project is consistent with the CAS and the Interim Transitional Support Strategy objectives to develop

Eritrea's human resource base and support sustainable investments in the health sector. In particular, it supports a multi-sectoral approach to mitigate the socio-economic and disease burden of malaria and HIV/AIDS, especially amongst the population in the productive age bracket. The project is also consistent with the high priority that GOE places on institutional development and capacity building. It complements and draws upon ongoing project financed by the IDA and other donors in community development, health infrastructure and management, and human resources development, in particular the recently effective Integrated Early Childhood Development (IECD) project.

2. Main sector issues and Government strategy:

Background

Since independence in May 1992, the Government of Eritrea (GOE) has made great strides in supporting development and improving the living conditions of its population. Basic social infrastructure has been rehabilitated and expanded. Gross primary school enrollment has changed from 36.3% to 64%. Overall access and use of health services has increased from 30% to 60%; EPI coverage has increased by 125%; attended deliveries have more than tripled; and antenatal care visit-coverage has more than doubled during the same period. Yet, Eritrea remains one of the poorest countries in the world (GDP/capita US$ 200). It is highly rural (about 20% of the population lives in urban areas, and 30% is semi-nomad). Its population pyramid follows an early development pattern with nearly 70% of the population composed of children and women of child-bearing age. The primary causes of morbidity and mortality among children under five are acute respiratory infections (ARI), malaria, and diarrhea. Life expectancy is 51 years (SSA 50); infant mortality is 72/1000 live births (SSA 72); under 5 mortality is estimated at 135/1000 (SSA 93); and maternal mortality, at 1000/100,000 live births (SSA 500/100,000). In the general population 62% of the burden of disease (BOD) is caused by perinatal/maternal causes, malaria, diarrhea, ARI, and tuberculosis (TB). Two thirds of the population live in malaria endemic areas. In 1997 and 1998, above average rainfall triggered a malaria epidemic, making this the leading cause of mortality (over 50% in all areas) and morbidity (60-80% depending on the area) across all ages. The reproductive health situation is very poor: first pregnancy occurs at an early age (21% of 17 year olds and over 50% for 19 year olds), the fertility rate is high (5.6), and female genital mutilation — discouraged by government — is prevalent in certain regions. This situation is compounded by an increase in STDs and the emergence of HIV/AIDS. Although reliable figures are still not available, this increase can be illustrated by the prevalence among blood donors of 1.9% (source MOH), and among the 15-49 age group of 2.87%. Nutritional status is poor: 10% of under-five children are wasted; 66% stunted, 41% underweight; and 50% of the children have anemia. Diarrhea, anemia and malaria are interconnected, and they increase vulnerability to other HAMSET.

This situation worsened due to the May 2000 military conflict with Ethiopia and to the drought. About 20% of the population (men and women) has been mobilized; a third has been displaced and is without adequate shelter, sanitation, food and basic services. Although widespread famine and disease outbreaks have not occurred, partly owing to Government efforts to mitigate the related adverse impact by providing food and other assistance, there is a growing concern that the situation will deteriorate in the coming months. Early warning signals, such as rising morbidity rates and falling livestock prices, are already evident.

The Ministry of Health (MOH) is responsible for the state health system and regulates and controls the provision of private and NGO operated health services. The public sector is virtually the only provider of health care. Private clinics and pharmacies exist only in larger cities and serve a limited proportion of the population. At the village and district level, the PHC network consists of health posts and health centers staffed with one or several nurses. Health centers have a laboratory, and in-patient and delivery facilities.

Many remote villages have no health facility. Every village or cluster of villages has teachers, extension, social workers, and malaria agents. They often work in cooperation with health facilities, sometimes referring patients. At the regional level (Zoba) the recently established Zoba health team manages the PHC network. The Government is completing a network of referral hospitals (one in each Zoba).

With support from WHO, the MOH has approved an essential drug list and has developed treatment guidelines. Drug purchase and distribution follows two systems: the pharmaceutical department of the MOH and Pharmecor. The pharmaceutical department of the MOH supplies the public health facilities. It is well organized, has an adequate monitoring system, and is supplied almost exclusively by donations from bilateral and multilateral agencies. Pharmecor is a parastatal, for-profit organization that imports and produces pharmaceuticals. While there are other pharmaceutical importers in the country, Pharmecor is the only producer. Private sector pharmacies can purchase drugs from any importer, and public sector facilities purchase from Pharmecor those items that are not available through the MOH.

Issues

Highly mobile and disperse population compounded by military conflict. Despite being a relatively small country, Eritrea has heterogeneous, ethnic-cultural groups and economic cultures, varying geographic and climatic zones, various vector habitats, and remote areas that are traveled by nomadic groups (about 30% of the total population in Eritrea is composed of semi-nomads and agro-pastoralists). There are seasonal migrations to and from the breadbaskets of the country. This previously isolated country is now open to trade, Eritreans from the diaspora, and foreign investors who travel in and out of the country. In the last two years, armed conflict has displaced about 3.5% of the internal population which adds to the 200,000 (7%) returnees. The combination of varied geography, high mobility, and openness after isolation facilitates the spread of communicable diseases and complicates MOH capacity to reach the population. In the aftermath of the recent conflict, there is an expected increase in morbidity and mortality due to malaria, water-born diseases, as well as an increase in the transmission of HIV/AIDS, STDs and tuberculosis.

Changing epidemiological profile. The factors listed above, compounded with changes in social mores and climatic conditions, have changed Eritrea's traditional epidemiological profile. **HIV is initiating its spread**, and there is no reason to expect that the epidemic in Eritrea will — without significant, well planned and focused intervention — follow a different pattern from that in neighboring countries. In 1995, over 11% of commercial sex workers in Assab (the main harbor and a key base of Eritrean economic activity) were HIV positive. Moreover, demobilization and the openness of the country is changing mores and attitudes, especially those of young people in urban areas. **Eritrea has a high case-fatality rate of malaria insipient testing has shown** malaria resistance to chloroquine at 40% of cases in certain areas, and cases of endemic malaria have been detected in previously malaria-free areas. In '97 and '98, malaria was the main killer in adults (65%) — especially pregnant women — and the main cause of morbidity among all ages (70%-90%). The prevalence of malnutrition increases the overall morbidity and mortality cases. Existing diseases, such as STDs and TB, are on the increase; however, it is difficult to estimate the exact numbers because of the social stigma attached to these pathologies. **TB is a major public health problem** with an annual risk of infection (ARI) of about 2.3%, i.e about 4000 people are expected to develop new smear-positive, infectious, TB cases each year. A similar number of people will develop non-infectious, pulmonary and extra-pulmonary, tuberculosis every year. As a consequence of the HIV/AIDS epidemic, the incidence of TB is expected to continue to increase. The recent massive population movements due to the conflict with Ethiopia and the mobilization of about 20% of the population to the front is expected to have repercussions on the transmission patterns of HIV/AIDS, M alaria, STD, and TB that are difficult to predict.

Lack of information on the epidemiological situation and effectiveness of current interventions. Health policy is made incrementally, based on experience rather than on data-based evidence. Data are collected, but not always shared across sectors, and analytical capacity is poor across the board. Systematic monitoring and evaluation of interventions is virtually non-existent across all sectors. Because of the conflict, it has been difficult to carry out country-wide surveys. While there are on-going entomological studies on the malaria vector, little is known about: a) population practices, behaviors, incentives, and motivations for health behavior change; b) the incidence of HIV/AIDS, STD and TB by different age, gender, and socio-economical groups and regions; c) insecticide and drug resistance to malaria, TB and STD; and d) the impact of education and communication activities on health behavior. Statistical data on TB case notification are incomplete and unreliable.

Insufficient and inefficient use of resources. Despite Government commitment and efforts (social sector expenditure amounts to 60% of Government's expenditure), the country can afford to spend only about US$5 per capita on health. As a result, certain programs known to be cost-effective, such as social marketing of condoms and directly observed treatment strategies (DOTS) for TB, cannot be expanded. **Expenditure patterns** are inefficient with most marginal financial resources (70%) concentrated largely on curative rather than preventive measures. While there is a series of policies to deal with different issues, including PHC, HIV/AIDS, malaria, STD and TB control, there is very little coordination among the different programs of the MOH. **Skilled staff** are scarce particularly in the rural areas. Capacity building is a key element of the Government policy, but lack of a sector strategy results in ineffective training for staff. The military conflict has further undermined the capacity as young staff had been called to the front. However, with the cease fire, staff are getting back to their posts.

Poor quality of health care and blood safety. Diagnostic capacity is limited. In the case of TB, the distribution of diagnosed patients indicates substantial underdiagnosis of new smear-positive, overdiagnosis of smear-negative pulmonary, and extra-pulmonary tuberculosis. This may be due to poor quality of smear microscopy and/or poor diagnosis of patients based on clinical findings only. Treatment guidelines are used rarely, and inadequate treatment is common. Outreach activities are limited, and so are preventive activities. Except for a Central Blood Bank being built in Asmara with IDA financing, there are no blood banks in the country.

Commitment to multisectoral disease control but lack of coordination across sectors. GOE has adopted a multisectoral approach to address the challenges of HAMSET, but this approach is as yet uncoordinated across sectors. The Ministry of Health, as the lead agency in combating the diseases, has prepared a five year plan of action and strategies for each of them. While those strategies are technically sound overall, they need to be adapted to local situations. The Ministry of Education has begun a pilot program of HIV/AIDS clubs in senior secondary schools and recognizes the importance of malaria as a cause of absenteeism in primary schools in epidemic regions. The MOE adult education Mass Media Unit currently reaches 75% of the rural population with messages addressing malaria. The Ministry of Labor uses its labor organizations to promote health messages, as does the Ministry of Information with its highly organized community networks. The National Union of Eritrean Youth and Students actively promotes HIV/AIDS awareness among adolescents, and the army's medical service performs the same function for conscripts. Effective coordination of these activities would strengthen an existing infrastructure that reaches all target groups within the population.

Shortage of qualified health personnel. Training of health professionals is done at the Institute of Health Sciences in Asmara and at the College of Health Sciences at the University of Asmara. There is no training of medical doctors in the country. There are only 145 physicians and 391 nurses, working mainly in the

urban areas. Other health professionals such as laboratory technicians, entomologists and health educators, are in critical shortage. Staffing patterns in relation to service delivery and the development of infrastructure are being revised.

Inadequate communication capacity and ineffectiveness of past communication efforts. Professional communication skills and experience beyond the field of journalism are limited within government agencies as well as the private sector. Disease control messages could be contradictory and carry the potential to either extend or create negative socio-environmental impacts. There is a need to develop and implement a coordinated national communication strategy. Moreover, despite significant efforts regarding participation, community mobilization is still mostly limited to implementation of government programs. Participation mechanisms lack comprehensive involvement that reflects the rich traditional and cultural knowledge possessed by the communities.

Insufficient knowledge of health practices and use of services by the population. For the most part, Eritreans have limited knowledge of how preventive health measures and social practices affect health outcomes. Despite public efforts, literacy is low in the country, particularly among women (70%). The country has a large share of orphans and female-headed households, which typically have a lower health status than that for the general population, and are less likely to seek health care by themselves. Nutritional practices are poor among adults and children who live in areas of the country with low intake of vegetables and proteins. Low population density in most rural areas limits access to primary health care services where health personnel (especially skilled staff) may not speak the local language. Finally, there is substantial stigma and societal exclusion against patients that have AIDS, STD and TB. All those factors severely lower the use of preventive and basic health services.

Environmental. The lack of adequate disposal for contaminated refuse from health facilities provides a serious source of contamination. Household tasks and social activities and behavior promote vulnerability to malaria. Several daily tasks and workplace hazards increase the vulnerability to infection by HIV-AIDS. After independence, GOE initiated major efforts to develop the country, such as construction of dams and terraces, expansion of surface irrigation, reforestation, and resettlement of displaced people and returnees. All those activities contributed to increasing HAMSET disease transmissions. The epidemiological profile of malaria in Eritrea implies that, according to WHO Guidelines for malaria control, effective control of the disease requires the use of pesticides to reduce vector density and for personal protection.

Government Strategy

The objective of the GOE overall Macro Policy is to eradicate poverty and to foster economic growth through, among others, national policies on **human resources development and food security**. The health policy supports this objective through activities that aim to: (a) minimize and eventually eliminate easily controlled diseases; and (b) enhance awareness of good health practices in order to improve workforce productivity. The education policy seeks to develop self-consciousness and self-motivation among the population in order to fight poverty and disease. Current state policy acknowledges the necessity for empowering vulnerable groups to enable them to become productive members of society. Finally, capacity building is a key strategy for fostering development as the GOE invests a large part of its resources in updating staff skills and in-service training. The following are key strategic priorities for the GOE:

Development of human resources. The work on a human resources development policy is underway. It will be finalized during the year 2000 together with a plan for matching training programs and staffing needs. In addition to external training, there are efforts to improve the quality of in-country health

programs. Curricula have recently been reviewed with a focus on competencies and on horizontal integration.

Improvement in the information base for decision making. The GOE plans to develop a social sector integrated information system to monitor living conditions and effectiveness of interventions. The nation-wide integrated food security system will serve as a model. As most ministries have developed their own information systems, GOE is studying how to connect and integrate the different databases, and enhance the capacity to analyze and use information at the Zoba level. In the health sector, it intends to build on the MOH management information system (SEMISH) and develop an effective surveillance and epidemic preparedness system.

Decentralization and inter- and intra-sectoral coordination. The decentralization policy creates an environment conducive to coordination of planning, budgeting, and implementation activities. Intersectoral committees at national and Zoba level are being re-activated. Recent projects supported by IDA stress coordination and have a strong multisectoral framework. The year 2001 marks the beginning of government budgeting. The GOE intends to use this instrument to boost coordination.

Community education and empowerment. The government has a strong adult literacy campaign to increase awareness of specific diseases and mobilize community for vector control. GOE is also fully supportive of the social marketing of condoms and is studying similar strategy for insecticide treated materials (ITMs). In its effort to empower the community, the GOE supports the efforts of other key stakeholders such as the National Union of Eritrean Women (NUEW) and the National Union of Eritrean Youth and Students (NUEYS) in AIDS counseling and in providing malaria prophylaxis to students during their social service. In their effort to minimize the stigma associated with HIV/AIDS, the MOH and other agencies are recruiting prominent people, who are HIV positive to meet with students and other vulnerable groups.

Minimizing environmental damage. The GOE recently adopted the "National Environmental Assessment Procedures and Guidelines" to be used in all projects, regardless of the funding source. The MOH is responsible for the related work and compliance in the health sector. The MOH is aware of the potential negative impact of the current use of pesticide use for malaria control, and is committed to address the issue by establishing: a) full control of chemical application, including handling and disposal of leftovers, and monitoring of both effectiveness and negative impact; and b) introducing safer alternatives to pesticides currently used for public health purposes. At the same time, the MOH is preparing standards for bio-hazardous waste management for health facilities.

Humanitarian crisis and reconstruction. The GOE reacted promptly to the May 2000 humanitarian crisis on two fronts: (i) by providing emergency relief and assistance to the displaced and the hosting communities; and (ii) by organizing the available human and financial resources in order to start the process of reconstructing and rehabilitating the areas damaged by the recent conflict. The process of reconstruction and rehabilitation of the country will be tackled in two phases: (i) a first set of immediate needs will be met through the financing of the Eritrea Reconstruction Program; the activities financed will enable the country to restart some productive activities and repair the infrastructure necessary to allow this process; and (ii) the remaining and less urgent needs will be addressed through individual sector programs prepared and financed in collaboration with the development community.

The HAMSET control project supports the above policies by adopting a coordinated intra- and inter-sectoral approach for tackling these diseases that impose a heavy disease burden on the Eritrean population, and that is based on environmentally sound disease management. While it does not answer

directly the humanitarian crisis, it is part of the sectoral efforts to minimize the impact of the recent conflict. It will ensure, among other things, that there are enough supplies to support the GOE's malaria and TB control efforts, and will provide basic drugs for the treatment of STDs and counseling and testing for conscripts that are demobilized.

Social sector activities supported by financing partners

With support of the USAID-funded Environmental Health Project, studies are being undertaken to help refine the malaria strategy, and social marketing of condoms is being implemented in selected areas. The Italian Cooperation, through WHO, is assisting in the design and implementation of an integrated disease surveillance system, the development of a human resource policy, and the control of Tuberculosis (TB). An ongoing IDA-financed social fund is supporting the expansion of education and health infrastructure. An IDA and NORAD-financed health project is constructing a Central Blood Bank and two referral hospitals at the Zoba level, equipping PHC health facilities, and supporting an in-depth analysis of the health sector. The recently launched IECD project focuses on nutrition, education and health issues of children under five and pregnant mothers, as well as on orphan protection. UNICEF is supporting community-based water and sanitation programs, school health and AIDS clubs, and malaria control through ITMs. WHO provides technical assistance on several technical issues including malaria and TB, and finances a pilot community-based program for the integration of individuals with disabilities in the community. Apart from that, an emergency program is being prepared to cope with the impact of the conflict and to reconstruct the country. Several donors (including EU and Italian cooperation) have pledged assistance. During appraisal, the Government reiterated its interest in developing a comprehensive health sector strategy and a health investment program in collaboration with its partners. The consultative process for the first phase, i.e. the sector review, has been initiated.

3. Sector issues to be addressed by the project and strategic choices:

The proposed project addresses the above issues only as they relate to HIV/AIDS, Malaria, STDs and TB (HAMSET) prevention, transmission and impact. Facing severe financial and human resource constraints, the Government has chosen to **focus** its efforts on these diseases and to combine control efforts in one program. This decision was made on the following basis:

HAMSET are interdependent and have substantial externalities. These diseases are inter-dependent. Prevention and early treatment of these illnesses not only reduce mortality and morbidity for the affected individuals, but also reduce transmission in the community. Recent research suggests that HIV-positive patients infected with malaria can transmit the disease at a much higher rate than those who are not infected with malaria. Similarly, infection with certain STDs strongly increases the transmission of HIV while early treatment of STDs reduces the transmission of HIV. Finally, TB is the most frequent opportunistic infection in HIV positive individuals in Sub-Saharan Africa.

Disease specific programs have a poor track record especially if implemented simultaneously. Disease-specific programs (i.e. vertical programs) overtax Government capacity during project preparation and implementation, undermine the sector, and confuse communities through disconnected health messages. Ideally, these issues are better approached on a sector-wide basis. In the case of this project, this option is not feasible due to the lack of a sector-wide framework.

HAMSET are multisectoral in origin, because they arise from an interaction of factors across several sectors. Experience suggests that tackling these issues through the health system only is both ineffective and inefficient. To be effective, an integrated national response must therefore address the various factors

that contribute to the spread and severity of the epidemics. Discrete interventions have proven ineffective. Furthermore, an integrated response provides a service delivery model that can be used in the future for other public health and development issues.

HAMSET significantly hamper development. HIV/AIDS is 99% fatal, strikes populations in the most productive ages, and usually kills both parents in an affected family. HIV/AIDS also causes severe personal loss, disruption of social structures and exacerbates poverty. Malaria which accounts for 40% of total outpatient morbidity and 30% of all admissions, is the main cause of death among adults, and approximately 10 work days per episode of malaria are lost during the planting and harvesting season. TB affects disproportionately the poor, often ends in death or serious disability, causes severe economic loss and exacerbates poverty.

Cost-effective interventions exist to control and minimize the impact of HAMSET. HIV/AIDS prevention has been shown to be highly cost-effective. Transmission prevention costs between 20 to 100 USD per case while treatment can cost hundreds of thousands, in addition to the subsidiary losses incurred by families. Malaria mortality and morbidity can be reduced through a combination of early treatment and vector control measures. TB control has been cited (WDR '93) as one of the most cost-effective health interventions.

Other strategic choices/principles include:

Actions against such a high burden of infectious diseases are not merely technical. The creation of a societal movement at both the national and community level is crucial. Such a movement can be created by developing a partnership among key players that would be involved in the context of Eritrea, other ministries and associations, as well as external funding agencies which are active on the ground.

Strategy to scale up actions against HAMSET. In addition to the provision of goods, technical assistance, incentives and other urgent support to the Zobas, actions would be scaled up by piloting new community-managed approaches at the sub-Zoba level.

Process project, learning-by-doing. At present, there is not enough information in some areas to design the most technically strong and cost-effective interventions to control HAMSET. Given the urgency to deal with these diseases, it is proposed to go ahead with a **process project** that would address some issues described above while focusing on **experiential learning (learning-by-doing)**. Thus, the design stresses monitoring, evaluation, and linking lessons as they are learned during implementation to annual plans and budgets, and policy reviews. This choice is especially supported since research and experience in Eritrea indicate that capacity is best increased if people learn-by-doing.

Supporting decentralization policy. In accordance with GOE policy, project activities are focused at the Zoba level. This will permit the adaptation of policies and strategies to the ecological, cultural and socioeconomic realities of each region. This will also allow the central level to focus on monitoring and evaluation, research, and technical support.

Target population. Most project activities will focus on the population in the productive age group, conscripts, and people displaced by the conflict. The project does not directly tackle issues such as malnutrition or other diseases. Children under five and general nutritional issues as well as AIDS orphans are covered by other programs including IECD.

Financing mechanisms. The project will not include cost-recovery mechanisms since rapid

implementation of the project is deemed essential to improve the health base in Eritrea, and cost-recovery delays implementation. Sustainability analysis will be carried out as part of the health sector review.

C. Project Description Summary

1. **Project components** (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The majority (47.2%) of IDA financing is for component C which supports the major health sector interventions: diagnosis, care and counseling for HAMSET. These activities are strengthened by smaller components that help to target care, control transmission in the community, and promote community-managed responses to HAMSET.

A. Collect and Analyze Information on HAMSET to Facilitate Evidence-Based Decision Making and Rapid Response

This component will strengthen the GOE's capacity to collect comprehensive information on HAMSET in a timely and efficient manner, to analyze it and to use the information for planning and to responding appropriately to changes in disease trends. That capacity would exist at the central, Zoba, and sub-Zoba levels and would allow a quick response to epidemics. Activities supported by the credit would contribute to: (i) improve HAMSET surveillance techniques; (ii) establish an epidemic forecasting and preparedness system; (iii) improve the country's capacity to carry-out operational research for identifying changes in HAMSET; (iv) introduce methods to link the results of research and M&E to policy formulation, annual planning and budgeting; and (v) strengthen management of communicable diseases at the MOH.

B. Multi-Sectoral Control of HAMSET Transmission

B.1. Promote healthy behaviors through multi-level communication. The project will enable the MOH /IEC unit to coordinate the communication activities of all implementing partners and build capacity at Zoba and sub-Zoba levels. It will enable Zoba level IEC staff to: (i) conduct formative research to gain a better understanding of target audience attitudes and beliefs about benefits and barriers to adoption of desirable behaviors; (ii) develop a communication strategy and conduct communication activities to support project objectives and promote healthy behavior among target populations; (iii) coordinate and supervise the work of partner agencies at the Zoba and sub-Zoba level; and (iv) develop a system to track changes in knowledge, attitudes, beliefs, and behavior among target audiences reached by communication campaigns. The project will also support orientation of leaders of NGOs, and senior officials of other line ministries as well as national advocacy efforts.

B.2 Promote healthy lifestyle through the education system. The framework of the FRESH partnership (Focusing Resources on Effective School Health — WHO, UNESCO, UNICEF & IDA) has been used to prioritize the most cost-effective actions, particularly for the poor and disadvantaged. The approach will be implemented through the Ministry of Education (MOE) school health program in both the formal and non-formal systems. The project will finance activities that aim to: (i) strengthen central and regional skills in school health programming; (ii) promote in students and teachers healthy practices and behavior change; (iii) establish school based support and health services; and (iv) promote healthy practices and behavior change in adults.

B.3 Enhance access to preventive, diagnostic and treatment services for conscripts. The project will: (i) promote healthy behaviors through multiple channels of communication, (ii) strengthen health care

services available to conscripts (including the availability of voluntary counseling and testing), (iii) promote the increased use of condoms and insecticide treated materials (ITMs), and (iv) establish a program to address HAMSET concerns in the context of demobilization.

B.4 Promote environmentally sound and cost-effective techniques for Malaria vector control by implementing a pesticide management plan (PMP) that will: (i) identify, test, validate and introduce safe, cost-effective chemicals to replace DDT; (ii) test and validate malaria biological vector control; (iii) develop a strategy for pesticide use and control; (iv) test community acceptance of validated methods and techniques; and (v) replicate socio-environmentally validated malaria vector control methods. The testing of the alternative chemicals will provide a reliable method to replace the current residual DDT house-spraying by chemicals and methods safer to the environment and to human health.

C. Strengthen HAMSET Diagnostic, Health Care and Counseling Services.

C.1 Establish safe blood banks in Zoba hospitals. The project will support the establishment of four blood banks for Zoba hospitals. This will complement the current health project which is establishing two blood banks in the remaining Zobas as well as a central blood bank in Asmara.

C.2 Improve diagnostic, treatment and counseling of HAMSET through integrated in-service and on the job-training on HAMSET prevention and detection, case management, syndromic and laboratory diagnosis of HAMSET, as well as pre- and post-HIV-voluntary counseling and testing (VCT). The primary strategies for HAMSET management include: directly observed therapy, short-course (DOTS) for TB; rapid detection and treatment of malaria in health facilities and in the community, including IMCI for children < 5 years of age, with laboratory confirmation when available; management of severe malaria at referral facilities; voluntary counseling and testing for HIV; management of opportunistic infections in HIV-infected persons; syndromic management of STDs, with laboratory confirmation when available.

C.3 Improve availability of basic medical materials and drugs required to diagnose and treat HAMSET in health facilities. The project will support procurement and distribution of basic essential drugs and diagnostic materials to treat HAMSET (only opportunistic infections in the case of HIV/AIDS), surveys to assess the availability of drugs and medical materials, in-service and on-the job resource management training for MOH staff specially at facility level, and transport for drugs, medical materials and to provide supervision.

D. Community-Managed Response Program.

The project will identify community-managed affordable, effective mechanisms for minimizing the transmission and impact of HAMSET and have them ready for replication nationwide. The component consist of two sub-components: (A) Community Counseling and Support Groups; (B) Community-Managed Response. Sub-component A will strengthen community support services provided by the MOLHW to provide counseling and establish support groups for AIDS patients. Sub-component B will test the capacity of the communities --under their own community structure and socio-cultural fabric to: (i) respond to technical information about the HAMSET for their prevention, care and cure; (ii) organize their internal mobilization, discussion and decision mechanisms on the support they deem necessary to assess and otherwise manage the diseases; (iii) identify and input their grassroots and socio-cultural contribution to HAMSET messages, prevention, care and cure methods, and available support services; and (iv) identify, decide on and implement sub-projects to prevent or mitigate the diseases and related impacts in the community. Lessons learned during the initial phases will be incorporated into

the plans for subsequent phases. The component will link with the IDA-financed Eritrean Integrated Early Childhood Development (IECD) as adequate. The component will cover all Zobas and sub-Zobas two in each cultural area, including semi-nomads but one Kababi each in Year 1 and 2 and expand to other Kababis in Year 3 and 4. This phasing will allow for internalizing of community-based processes among field staff and community-based workers and the testing of a number of assumptions in the initial phases.

E. Project Management and Evaluation.

The project will strengthen the current PMU (located in the MOH) that is managing the Health Project, with an emphasis on evaluation and monitoring of activities.

Component	Sector	Indicative Costs (US$M)	% of Total	Bank-financing (US$M)	% of Bank-financing
A. Collect and analyze information on HAMSET to facilitate evidence-based decision making and rapid response.	Institutional Development	5.14	10.3	3.70	9.3
B. Multi-sectoral control of HAMSET transmission.	Health	11.16	22.3	8.74	21.9
C. Strengthen HAMSET diagnostic, health care and counseling services.	Basic Health	20.69	41.4	18.90	47.2
D. Community-managed response program.	Safety Nets	9.89	19.8	5.98	15.0
E. Project Management and Evaluation.	Institutional Development	2.72	5.4	2.28	5.7
F. PPF Refinancing		0.40	0.8	0.40	1.0
Total Project Costs		50.00	100.0	40.00	100.0
Total Financing Required		50.00	100.0	40.00	100.0

2. Key policy and institutional reforms supported by the project:

The project will support the **integration** of planning, implementation and monitoring activities of previously vertical programs dealing with HAMSET. It will also support the recently initiated **decentralization** reform and encourage the Zobas to implement locally adequate methodologies to improve the health of their population. It is expected that by the end of the project, the GOE would have a **coordinated strategy across Ministries** to deal with HAMSET and health issues in general. The government would also have identified bottlenecks for an institutional and legislative framework that supports division of responsibilities on given issues across sectors.

3. Benefits and target population:

Economic benefits. The project is expected to increase productivity due to reduction of days lost to illness (for both the sick and caregivers). A reduction in the public cost of treatment, through the decline in disease prevalence and increase cost-effective use of resources, will increase sustainability of interventions and permit redirection of fiscal resources. Home-based care of AIDS patient is also more cost-effective than hospital-based care.

Social benefits. Reduced social stigma attached to HIV/AIDS, STDs and TB increases early disease detection and intervention will help reduce transmission. It also promotes the establishment of social support systems, such as counseling services, support groups for patients and their families or caregivers which is known to reduce the economic and social burden on the affected families.

Institutional benefits. Capacity building will strengthen the ability of key stakeholders to coordinate, implement, and manage proposed interventions. Moreover, the intersectoral approach with improved coordination of policy and implementing agencies will improve the efficiency of resource use and enhance overall impact of HAMSET interventions.

Environmental benefits. The project will support the MOH in the efforts to phase out the use of DDT and replace it with a combination of safer insecticide use and an integrated malaria control program that stresses malaria prevention and natural management of the disease vector. The project will specifically support environment-based activities that focus on the communities as primary beneficiaries, stress post-conflict socio-environmental conditions, and reduce the reliance upon, and ensure safe use of insecticides. In addition, the conditions of medical waste will be assessed in the first stage of the project, and adequate solutions identified and implemented as appropriate.

Target groups. The principal target groups are the **population in productive age** brackets, especially women, adolescents, and conscripts. The project will have specific interventions focused on high risk groups such as commercial sex workers and migrant labor. Promotion activities will be targeted at different groups. Some groups will be targeted through point-of-entry messages (i.e. children, adolescents and young adults in school); for high risk groups, their profile and behaviors will be identified through research during the first year of the project to set the base for adequate messages.

This project includes **poverty-targeted interventions** and has been designed to disproportionately benefit the poor who are more likely to live in rural areas and in malaria-risk areas. Because of its decentralized and community-based approach, this project is more likely to reach poor communities in the Zobas.

4. Institutional and implementation arrangements:

Implementation Period: 5 years

Detailed implementation arrangements are part of the PIM, and were found acceptable during negotiations. The following are initial details for project arrangements.

Executing Agencies. The Ministry of Health will serve as the overall coordinating agency, in addition to its existing responsibility as the lead executing agency. In addition, the following agencies will implement relevant aspects of the project in accordance with their existing sectoral aims and mission: the Ministries of Education, Local Government, Labor & Human Welfare, Tourism, Transport, Communication, Land, Labor and Environment, Information and Defense Medical Services as well as the National Unions of Eritrean Women and Youth and Students.

Project Oversight and Policy Guidance. A *National HAMSET Steering Committee* will provide strategic directions and policy guidelines. It will be chaired by the Minister of Health and will include Ministers of Local Government, Labor and Human Welfare, and Education as well as the six Zoba Governors. The Director General of Health Services (DG HS) will be the Secretary. This Committee will meet at least quarterly.

Management of Project Activities. Figure 1 illustrates the management structure of the project. It adopts the existing organizational structure of the MOLG, thus promoting coordination and cooperation at all administrative levels, in line with the Government decentralization policy. This is achieved through the following arrangements:

At the central level, there will be a *National HAMSET Technical Committee* chaired by the DG HS. The Director, Communicable Diseases Control Division (CDC) will be the secretary and the PMU Director is a member. This committee will provide the technical guidance for all project activities. Technical experts designated by the Ministries of Health, Education, Labor and Human Welfare, Local Government, Tourism, Agriculture and the Medical Services of the Ministry of Defense as well as the associations of Women and Youth and Students and the Confederation of Eritrean workers, will be members of this committee and will meet once a month or more often if necessary, to review all technical aspects and progress of the project. The Technical Committee will report to the Steering Committee through the DG HS.

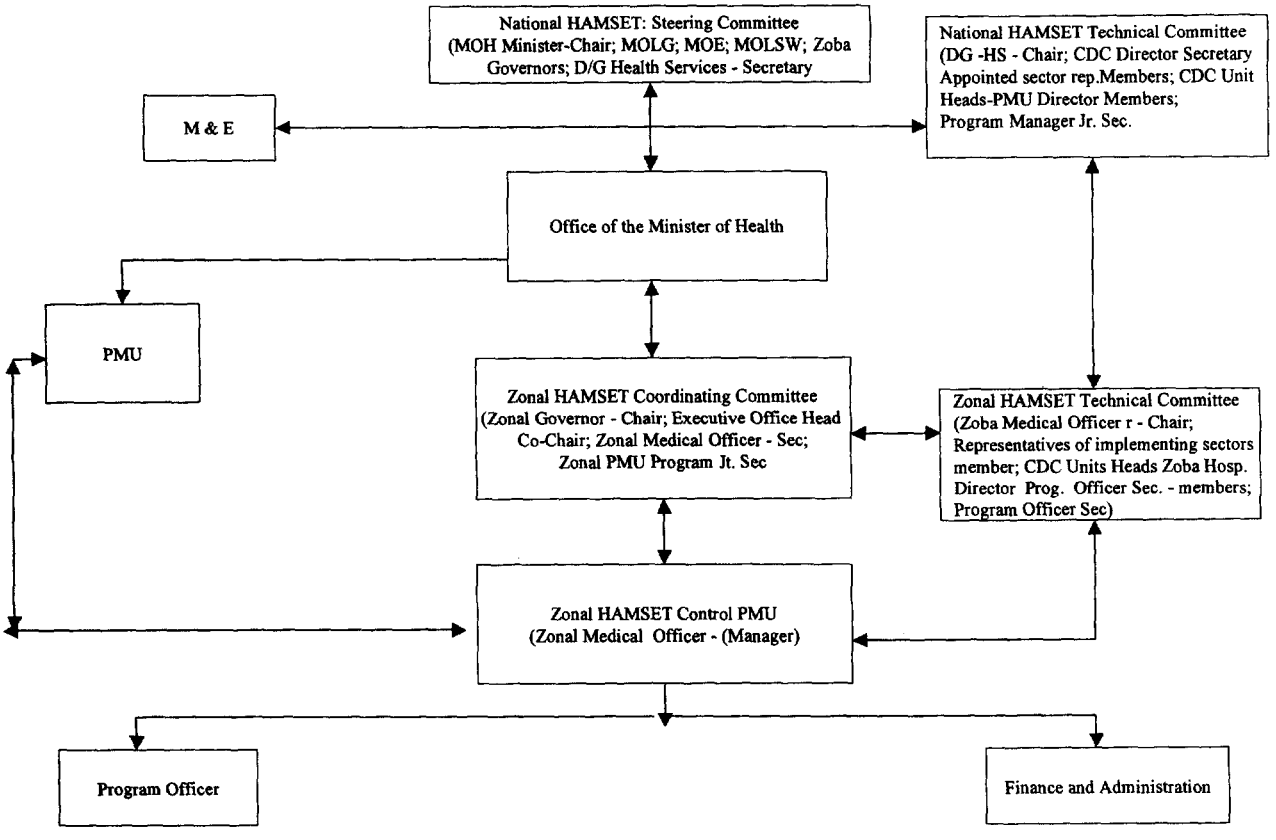
The Coordination, planning, financial management, and procurement at national level will be the responsibility of the *Project Management Unit (PMU)* set up for the present health sector project (Credit 3023). The PMU will be strengthened with the addition of one Operations Manager exclusively for HAMSET, three Program Officers to coordinate different project components, finance/accounts and procurement personnel and minimum support staff. Its manager reports directly to the Minister of Health. Both the procurement and financial management capacity of the Unit have been evaluated and found satisfactory. The project will add a sub-unit to the PMU, staffed with a deputy-project manager, financial management officer, procurement specialist, and appropriate support staff and equipment. Special training in project management will be provided for the new staff with special emphasis on monitoring and evaluation of activities. The expanded PMU will be responsible for compiling and preparing budget and plans, disbursing funds to participating Ministries and agencies, and managing the special account, financial management and accounting, bulk procurement of goods and services, and management of the Credit. The PMU will also be responsible for ensuring compliance with the Development Credit Agreement (DCA) and project coordination across ministries and the regional administration and agencies.

At the Zoba level, the overall coordination will rest with the Zoba HAMSET Coordination Committee to be formed with the Zoba Governor as the Chairperson. The members will include all multi-sectoral implementing ministries and agencies at the Zoba. The Executive Director of Zoba Administration will be the Co-chairperson, the Director of Social Services the vice-chairperson, and the Zoba Medical Director the Secretary of this committee. The committee will meet every month. There will also be a Zoba HAMSET Technical Committee with the technical experts from the line departments and agencies as members. The technical committee will meet every two weeks to review all technical and implementation aspects. The Zoba Medical Director will chair the technical committee and the HAMSET program officer will be the Secretary.

39. The day-to-day management and coordination of the project at the Zoba level will be handled by a small **Zoba HAMSET Control Management Unit** under the Zoba Medical Director. The Executive Director of Zoba Administration and the Zoba Medical Director will be co-signatories to the Project Account in the Zoba. One Project Officer and one Project Accountant will be full time project staff at the PMU. The workload in the initial two years may require an Assistant Project Officer to support the Project Officer. The specific job responsibilities will be included in the Project Implementation Manual.

Chart No. 1

ORGANIZATIONAL STRUCTURE & COORDINATION FRAMEWORK FOR HAMSET CONTROL PROJECT



Planning, accounting, financial, reporting, and auditing arrangements. The development of the financial management system will have two phases: interim and final. The interim phase will involve expanding and/or adapting the existing financial management and accounting structure, and will be in place when the project becomes effective. The final phase will involve piloting and ensuring that the existing system is ready to adopt PMR-based disbursements. During appraisal, the capacity of the implementing agencies and Zoba level structures were reviewed. Due to the limitations regarding accounting and finance management at decentralized levels, a number of steps have been agreed with the Government, as follows.

As part of the PIM, a Financial Management Manual to document the operation of the project's financial management system will be finalized by credit effectiveness. The manual will *inter alia* contain a description of financial policies and procedures applicable to the project, channels and arrangements regarding the flow of funds, the Financial Management System and sub-systems (budgeting, accounting, and reporting), and internal controls. During negotiations, IDA obtained confirmation of the recruitment of an additional financial officer, reviewed and updated action plan for the upgrading and implementation of the financial management system. Effective implementation and operationality of those systems will be part of the *conditions for credit effectiveness.*

An independent and qualified audit firm with staff experienced in similar audits will carry out an annual audit of the project accounts. During negotiations, a short list of firms acceptable to IDA were agreed upon. A one-year contract, renewable year by year, subject to annual performance satisfactory to the Government and IDA, will be signed between the Borrower and the selected firm. Terms of reference for the annual audits were agreed upon at negotiations, and will cover all requirements for audit of the project accounts and review of internal controls. Audit reports (consisting of the auditors opinion and a management letter) will be submitted within six months following the end of each fiscal year. The cost of such audits is incremental and is therefore included in the project cost.

Monitoring, evaluation, and reporting arrangements. A detailed monitoring and evaluation system will be developed and included in the Project Implementation Manual. The monitoring and evaluation of the project will be based on the indicators outlined in Annex I and the Development Credit Agreement. Studies carried out during the first year and a half of the project will establish base line data and subsequent studies, and results from the surveillance and effectiveness monitoring systems will support evaluation of project progress. Representation of the government agencies at the sub-regional and village (community) levels makes it possible to supervise the details of program implementation, follow up activities, and cross-sectoral coordination at all administrative levels. Project M & E will be undertaken through: (1) IDA supervision missions and annual progress reviews; (2) regular quarterly meetings of the Project Central Steering Committee; (3) semi-annual progress reports based on implementation targets defined in the Annual Work Plan and Budget; (4) mid-term review of the project no later than 30 months after effectiveness to identify project successes and issues to be addressed; and (5) baseline and follow-up surveys of beneficiaries. A project Implementation Completion Report will be prepared within six months of the project closing date.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

A **targeted health** rather than a **sector-wide approach** was chosen because of: a) an absence of a sector-wide policy and vision; b) insufficient information on the current situation; and (c) weak monitoring capacity in the sector. The project aims to increase capacity to address these issues on all of the above. With financing from the current health credit (Cr. 3023-ER), the Government has initiated the preparation of a sector note in consultation with other partners. Such a note will facilitate the discussion among all stakeholders of the issues and the preparation of a sectoral strategy and plan of action.

The possibility of including **other health** issues was evaluated. Malnutrition and Mother and Child mortality and morbidity (including malaria) carry over 70% of the burden of disease in the country and are very high on the priority list of both the IDA and the Government. An IDA-financed IECD project, which addresses these issues, has been launched. This project complements those efforts by focusing on the productive work-force (not covered by any other project) and ensuring coordination and integration with the IECD project.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Sectoral	Health Project (Cr. 3023-ER)	S	S
Multi-sectoral (pilot	Community Dev. Fund (Cr. 2478-ER)	HS	HS
Multi-sectoral	Community Dev. Fund (Cr. 2823-ER)	S	S
Early Childhood Development	ECD -became effective 09/27/2000		
Nutrition	Under preparation		
Institutional Capacity Building	Human Resource Development (ER 50354)	U	S
Other development agencies			
Italian/WHO Health sector support	The Italian/WHO program was signed in November, 1996. It aims to establish an integrated surveillance system and to support TB control.		
USAID Health Sector Project	Eritrea Health and Population Project. Stopped during 98 and first half 99. Re-starting with focus on malaria and reproductive health		
UNICEF's health sector support	The new UNICEF five-year agreement with Eritrea is under preparation.		
UNFPA support for reproductive health	Several initiatives underway to improve reproductive health and to support the social marketing of condoms.		
NORAD	Co-finances current IDA-financed Health Project		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

3. Lessons learned and reflected in the project design:

The proposed project would be the second IDA-financed health operation in Eritrea. Several relevant lessons learned from the first health project and IDA health projects in other countries include: (i) the need for flexibility to adapt approaches to better respond to local needs; (ii) government commitment and institutional capacity are needed to ensure efficient implementation of program activities and achievement of development objectives; (iii) overly centralized management structure of many health ministries have impeded the efficiency and effectiveness with which project activities are implemented; it also deters stakeholder/beneficiaries from participating in project implementation, leading to little project ownership and, in many instances, low sustainability of operations in the future; and (iv) adequate provision for recurrent costs is critical to ensure quality of services and to sustain operations, especially where hospital capacity is under expansion.

Lessons learned from **previous projects in Eritrea**. The **Eritrea Community Development Fund** experience --rated as Highly Satisfactory-- has shown that both a decentralized system and an emphasis on strengthening institutional capacity were important contributors to project success. Sector effectiveness was particularly high in health and education, and community satisfaction and participation high in both sectors. Two constraints on community participation were: (i) lack of consultation and under-utilization of local knowledge; and (ii) cultural factors limiting access of women and girls to some benefits in some regions. The present project is based upon an implementing structure decentralized to the Zoba level --with a specific component of institutional strengthening-- and with a strong emphasis on strengthening the infrastructure of health and education in the communities. A strong communications component supports the enhanced transparency of governance, and there is a specific role of the community in monitoring inputs and outcomes.

Lessons learned from **HIV/AIDS program development /implementation in other countries** show that despite the lack of a cure or a vaccine, preventive measures such as awareness programs to bring about behavior change, social marketing of condoms, treatment of sexually transmitted infections and opportunistic infections such as tuberculosis, voluntary counseling and testing, a safe blood supply, and preventing mother-to-child transmission have all proven highly effective in reducing HIV transmission. Community-based programs have been especially effective in enhancing prevention, care, support, and treatment for those infected and affected by HIV/AIDS. Lessons learned during the implementation of effective HIV/AIDS programs in various countries have been integrated into the project as appropriate.

Lessons learned from **previous cross-sectoral and sector-wide** projects: In January 1999 the **HNP Quality Group** reviewed 21 PADs, including 5 SIPs. This review was used by the HAMSET project team to direct project preparation overall, but specifically with regard to 5 key questions of particular relevance to cross-cutting projects:

- Is there indication of support from key politicians? This project has the support of the President's office, which indicates the importance of the adopted structure in which the MOH takes a lead coordinating role, and also has the support of the Minister or Secretary of each of the nine participating agencies.

- Is there a detailed, phased and flexible implementation schedule? The project is based around a process approach that is described and planned in detail for the first year, is phased thereafter, and is deliberately designed to allow rapid roll out with maximum subsequent flexibility.

- Has the project conditioned disbursement against prior adoption of agreed institutional reform? Appraisal was dependent upon the adoption of agreed coordination and collaboration mechanisms, and effectiveness upon their formal implementation.

- Are the agencies involved kept to a minimum? There are nine agencies which were each able to demonstrate clear, synergistic and non-duplicatory roles in implementing the project. These agencies cover: health, education, information, youth, women, demobilized conscripts, and the agricultural, industrial and construction work forces. Given the epidemiology of HIV/AIDS/STD, all of these activities and populations were considered priorities.

- Is implementation progress subject to an annual review plan? The project establishes two technical committees --one at the central and one at the Zoba levels which meet regularly and monitor progress and direction.

The approach to institutional coordination is also based around experience other than that in HNP. The new Guinea Quality Education for All Project builds on this approach to include the Ministry of Women and Social Affairs, and is the model for the institutional management of the Senegal Quality Education for All Project. In Nutrition the original Madagascar Food Security and Nutrition Project led to the 1998 Community Nutrition Project that links nutrition and health with the education sector.

4. Indications of borrower commitment and ownership:

HIV/AIDS (and related diseases), malaria, together with Nutrition, and TB are the key health-related developmental issues in Eritrea related to health. GOE is highly committed to halt the transmission of these diseases. The MOH has prepared very ambitious and comprehensive five-years plans to tackle HAMSET, has organized a national, and six regional malaria conferences with the participation of representatives from all the Eritrean society; it has set up intersectoral national and local committees dealing with HAMSET. Furthermore, the MOH has convened all partners to coordinate the fight against these diseases. The MOE has initiated an HIV/AIDS-STD sensitization campaign among its staff, aims at implementing universal health education in the schools, and has set up School AIDS clubs. The Meterological Department shares precipitation data with the Malaria Control Program to forecast epidemics. National Environmental Guidelines include health impact assessment as a requisite for project preparation and approval.

Most of all, the Government has continued to prepare the project at a reasonable speed in the middle of the May 2000 armed conflict, even when it meant that much needed personnel had to be exempted from conscription.

5. Value added of Bank support in this project:

The comparative advantage of IDA is the involvement and ability to work across sectors, which will facilitate the proposed multi-sectoral approach. Furthermore, there are clear links with other IDA-funded projects, such as the Community Development Project, the Early Childhood Development project, the Human Resource Development Project, and the proposed Nutrition Project. IDA involvement will help: (i) ensure coordination; (ii) prevent duplication of efforts; and (iii) exploit the complementary aspects of the different projects. As the IDA is a key partner in the global Roll Back Malaria partnership, STOP TB Initiative and UNAIDS, the ability to play a facilitating role in identifying expertise and possible partners is also an asset. Lastly, the Government of Eritrea has explicitly and urgently requested the IDA to support and extend the ongoing efforts to control malaria and HIV/AIDS.

Multi-Country HIV/AIDS Program (MAP)

Management has recommended that HAMSET be included as part of the Multi-Country HIV/AIDS Program (MAP) for Africa. The MAP, approved by the Board in September 2000, is a "horizontal" adaptable program lending (APL) instrument developed to strengthen the Regional response to HIV/AIDS. The MAP will support efforts to expand national prevention, care, support, and treatment programs, and to prepare countries to cope with the unprecedented burdens they will face as the millions living with HIV today develop AIDS over the next decade.

The first phase of the MAP will consist of individual lending operations up to an aggregate amount of US$ 500 million. Provided they meet specific eligibility criteria, including eligibility for IDA credits, the MAP will enable countries to more rapidly access resources needed for the expansion of national HIV/AIDS programs. It is proposed that HAMSET be included under Phase 1b of the MAP (Phase 1a was constituted by the first two countries approved for MAP funding). As detailed below, HAMSET meets the MAP eligibility criteria:

- *Satisfactory evidence of a strategic approach to HIV/AIDS, developed in a participatory way*: The GOE 's comprehensive five-year plan for HIV/AIDS is multisectoral and has been developed using a participatory approach.

- *Establishment of a high-level HIV/AIDS coordinating body, with broad representation of key stakeholders from all sectors, including people living with HIV/AIDS*: A National HAMSET Steering Committee will provide overall strategic and policy guidance to the implementation of the program. This Committee includes representation from the Ministries of Health, Local Government, Labor and Social Welfare, Education, in addition to all six Zoba Governors and representatives of people living with HIV/AIDS.

- *Government commitment to quick implementation arrangements, including channeling grant funds for HIV/AIDS activities directly to communities, civil society, and the private sector*: The GOE is committed to the rapid implementation of HAMSET, and has emphasized the need for mechanisms to strengthen community-based responses.

- *Agreement by the government to use multiple implementation agencies, especially community-based and non-governmental organizations*: HAMSET will be implemented through a partnership of several Ministries, the National Union of Eritrean Women, the National Union of Eritrean Youth and Students, among others.

The inclusion of malaria within the HAMSET MAP is highly unusual and is not intended to set a precedent for future MAP country projects. In brief, the integration of HIV/AIDS and malaria in this project was considered necessary for two major reasons: (i) as a means of achieving economies of scale; and (ii) disease-specific programs face a higher risk of failure when implemented in parallel. This rationale is further detailed in Annex 4 ("Adequacy of the Sector Policy Framework") of the PAD. It should also be noted that the malaria specific component of HAMSET constitutes only 7 percent of the credit.

E. Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

1. Economic (see Annex 4):

○ Cost benefit NPV=US$ million; ERR = % (see Annex 4)

○ Cost effectiveness

● Other (specify)

The project aims to control a set of diseases (HIV/AIDS/Malaria/STDs/TB) considered to be responsible for a large share of discounted life years (DLYs) lost due to premature deaths and affecting mainly the productive age group of the Eritrean population [minimal data based on Disability Adjusted Life Years (DALYs) is presently available in Eritrea]. Without the project and IDA's contribution, local resources can only finance about 20% of the proposed project. This could have serious implications given the combined adverse impact of the HAMSET on the Eritrean population.

A preliminary *cost-benefit* analysis of the project's malaria interventions alone shows that the estimated present value of benefits from malaria interventions is at least about US$ 22 million, compared to the estimated cost of US$ 5.4 million to control. Most of the benefits are due to a reduction in lost days for agricultural production due to illness, and in the number of malaria-related deaths averted (Scheuemaier, 2000).

As a whole, the project supports proven, *cost-effective* interventions (prevention and early treatment), while promoting pilots of innovative activities especially community-managed mechanisms. Project allocation reflects this approach with a significant portion of the budget focusing on prevention interventions of which about 24% is allocated to promotion of behavior change or adaptation. Prevention of HIV/AIDS can be more cost-effective in Eritrea where the epidemic is at a relatively early stage (prevalence is estimated at around 3.6-5.0 %). HIV/AIDS affects people in their most productive years and it can significantly reduce life expectancy. In 9 African countries with adult prevalence of 10% or more, HIV/AIDS has been estimated to reduce 17 years of life expectancy (WB 1997).

There is a proven synergy between the diseases being addressed in that addressing anyone of them reduces the transmission of the others. A national response that addresses the various factors that contribute to the spread and severity of these diseases in a more integrated and holistic manner is called for. Accordingly, this project will support project planning and implementation arrangements that will focus on a *coordinated approach* to prevent and control HAMSET and would provide a service delivery model for other public health and development issues.

The project significantly reduces inefficiencies by integrating interventions. Efforts to coordinate the purchase and provision of inputs and packaging of training, as appropriate, reduced previously proposed project costs by almost 64%. Moreover, the revised budget has tried to *avoid establishing or supporting parallel* structures in order to use project funds more efficiently. For example, the mission suggested that it would be more cost effective if SEMISH (the Management Information System of the MOH) could be upgraded and fine-tuned to become more responsive to the more frequent reporting needs of the ministries involved in HAMSET control, instead of developing parallel management information systems as originally proposed by the different departments.

Project design also addresses both the health and *socio-economic impact* of HAMSET, through partnerships with all relevant stakeholders. For example, teaching life skills in schools could help enhance

adolescent's knowledge and negotiating/bargaining power with sexual partners once they become sexually active. The project supports *social safety-nets* to help reduce the vulnerability of poor households by piloting an affordable, home-based system for care and referral for HAMSET patients.

2. Financial (see Annex 4 and Annex 5):

NPV=US$ million; FRR = % (see Annex 4)

The total cost of the 5 year program is about US$ 50 million with IDA's contribution at approximately US$ 40 million (80%); Government and community contributions are about US$ 8.34 million (16.7%), and US$ 1.66 million (3.3%) respectively. The overall allocation of expenditures across categories is acceptable with approximately 36.0% of total project costs devoted to training, technical assistance, and special funds to encourage the involvement of stakeholders, especially communities. Civil works constitute only a small fraction of the total budget at about 6.8% with an emphasis on renovation of existing health facilities and social infrastructure, or adaptation of existing structures.

The project, however, seems front-loaded with its first year accounting for about 19% of total project expenditures. Given the limited implementation capacity of the sectors involved (especially because of the adverse impact of the border conflict on Eritrea's human resources), carefully phasing activities in relation to existing local capacity was discussed during the appraisal mission. This issue was also discussed during the project decision meeting and the general consensus was that the risk of frontloading does not seem significant because of the good track record of the PMU and the quality of the project implementation manual. The first year implementation plan was discussed and refined during negotiations.

Fiscal Impact:

A significant portion of project costs is expected to be covered by IDA (about 80%) with the Government increasingly taking over the financing of recurrent costs aside from the agreed percentage of PMU-related expenses during the course of the project. Community contributions mostly in kind will cover around 4% of the project expenses including support and management of community-based initiatives such as safety nets to assist families affected by HIV/AIDS and TB and care of AIDS orphans.

The recurrent cost requirement for the fifth year of the project is estimated at only about US$ 1.0 million (if bednets, condoms, and drugs are considered as investment costs and not recurrent costs). On the other hand, if bednets, condoms, and drugs are included in the calculation then project recurrent cost requirements increase to US$ 4.90 million. Assuming that the latter classification holds and that no further scaling up and/or replication of activities would be needed, a minimum of US$ 6.10 million would be needed to finance HAMSET activities during the sixth year of the project. This estimate assumes that some training activities/refresher courses will be held to maintain staff quality; drugs, bednets, condoms, and maintenance will be financed entirely by the GOE. The recurrent cost requirement after the project seems affordable, amounting to less than 1% of the 1999 budget for health. However, previous expenditure and financing patterns have shown that about 80% of HAMSET-related activities have been funded by external partners. Thus, continued reliance on external financing might be expected in the short to medium term unless HAMSET activities are programmed into the regular budget of the Government to ensure the sustainability of HAMSET control program activities. GOE is developing a long term strategy as an important area of focus in the preparation of its health sector review.

3. Technical:

Strategies. The components that will be supported by the project all have a strong technical underpinning, achieved through elaborate processes of analyses, policy, and strategy formulation. The strategic plans for

HIV/AIDS, TB, and malaria control have been developed with WHO support, and have been reviewed in the national malaria workshop and through IDA supported seminars. WHO, UNFPA, UNICEF, USAID and Italian Cooperation have provided technical assistance and remain involved in efforts to improve the technical aspects of the relevant programs. GOE and its partners recognize that although the plans are overall technically sound, more information is needed to refine them and ensure that the Zoba-specific interventions are cost-effective. The school health component has been developed following guidelines jointly developed by UNICEF and UNAIDS. Social marketing components are designed and implemented with support from TA financed by USAID and taking into consideration lessons learned from the pilot social marketing experience in Eritrea. Activities on communication for behavior change are based on successful experiences in similar settings. The activities undertaken for HAMSET control will be consistent with the strategies of various global health initiatives, including Roll Back Malaria, Stop TB, and the strategies of UNAIDS.

Linking operational research to policy. Every year the project will carry-out an evaluation with technical support from Roll Back Malaria and UNAIDS. All the key stake holders will participate and will receive and give feedback on research and monitoring findings, and issues encountered during implementation. The evaluation will produce strategy and policy recommendations.

Transfer of skills to increase capacity. During project preparation the stakeholders reached agreement on the roles and responsibilities of staff at different levels, the applicable minimum required skills and training levels, and the training packages to be offered. The process is expected to continue and be further refined throughout the project period with a view to remain focused on improving performance. During the first year of the project the GOE will work on identifying the current skills of health staff, and on mechanisms/institutions that have the capacity to provide the different training packages. Particular attention will be given to capacity building needs associated with the decentralization and community participation aspects of the project. The main target groups of all capacity building activities will be staff from different ministries at the Zoba level, and agents for social change. Given the limited staff and technical capacity in the country, the project also provides some overseas and degree training.

Communications for behavior **change**. The sphere of communications is seen here in a broad perspective, going beyond traditional IEC to include activities more strategic in nature. During project preparation, consensus was achieved on the need to carry out the advocacy/ IEC activities as a joint effort with other sectors. The MOH IEC unit has been strengthened and its role defined as that of policy formulation, and coordination, planning and supervision of communication activities at the Zoba and sub-Zoba levels (IEC plan, September 2000). With the coordination mechanism in place, existing structures would work as they have done so far, but in closer synchronization with each other.

Selection of drugs and laboratory material. Eritrea follows an essential drug list and therapeutic guidelines. WHO has supported the preparation of those guidelines. The National AIDS Control Program (NACP) currently follows WHO recommendations on HIV test materials. The project will support standardization of HIV materials based on the country's experience and WHO recommendations.

Mother-to-child transmission (MTCT) of HIV. As a result of rapidly accumulating global experience in the implementation of pilot MTCT-prevention programs in resource-limited settings, HAMSET will support pilot studies following UNAIDS/WHO guidelines. These MTCT pilot studies will be integrated with project support for voluntary counseling and testing services for pregnant women. It is anticipated that the result of these MTCT pilot studies will yield policy recommendations and implementation guidance on: (i) expansion of voluntary counseling and testing services for pregnant women; (ii) optimal choices of antiretroviral regimens for MTCT-prevention; (iii) feeding practices, health services, and social services

for both HIV seronegative and seropositive infants; (iv) pre- and post-partum health and social services for women; and (v) identification of urgent research questions related to MTCT-prevention in the Eritrean context.

Community-based care and diagnosis for HAMSET Control. Possible care and support interventions range from voluntary counseling and testing, home-based care, DOTS strategy, promotion of human rights for TB and HIV-positive people, support for orphaned children and affected households, treatment of opportunistic infections, and support for networks of people living with HIV/AIDS. All of these are considered extremely relevant but in a resource-constrained environment, priorities will have to be established. The project will facilitate a process whereby communities supported by agents for social change, will determine the priorities and define support activities commensurate to the available resources. The project will also support on a pilot basis, community-based diagnosis of, and activities related to, environmental and living conditions affecting health.

NGO and private sector participation. The Government has made great efforts to involve NGOs, communities, religious leaders, and the private sector in the implementation of the HAMSET control project. Some religious leaders have initiated actions in their communities to reduce harmful practices such as FGM and are educating the population on HIV/AIDS. The national unions of Eritrean Women (NUEW), Eritrean Youth and Students (NUEYS), and Workers (NUW) are already actively involved in prevention campaigns especially in the urban areas. The Project encourages these organizations to extend their preventive activities into the rural areas, to re-examine their potential roles in increasing parents-to-youth discussions about sex and health practices, as peer counselors, and as facilitators and/or providers of home base care and support for individuals and families affected by TB and AIDS. The project also supports the increasing participation of the private sector, from the production of communication material, to the inclusion of health education and sensitization activities and condom distribution in the work place (especially in the big construction sites and through the transport workers association), and ITMs.

4. Institutional:

4.1 Executing agencies:

The MOH is the main coordinating agency. Other key agencies include MOLG, MOE, MOT, MOTC, MOLHW, MOI, NUEYS, NUEW, NCEW, and the medical services of the armed forces. Overall, a suitable environment exists for the proper operation of the project. There is adequate support for an accountability culture at high levels of the Government, and staff are dedicated and have a clear sense of responsibility.

Both the MOH and MOLG have been implementing IDA-funded projects since 1996 and 1998, respectively, while the other ministries have no experience with IDA projects. In order to ensure that there is sufficient capacity for project implementation, the project action plan/implementation manual being prepared includes provisions for capacity-building to enable the participating institutions specially at Zoba and sub-Zoba levels to execute the activities as planned. The first year of the project will focus mainly on capacity building, technical, and administrative activities at Zoba and sub-Zoba level that have the lowest implementation capacity.

4.2 Project management:

Effective project management is essential to monitor the achievement of project inputs, outputs, and impact, as well as to provide financial accountability with due diligence to economy, and to conduct

transparent procurement procedures in the award of contracts. Project management will be coordinated by the MOH through the existing PMU. A sub-unit of the PMU will work exclusively on the HAMSET project. GOE is identifying additional personnel needed to staff the sub-unit. As many interventions will take place at the Zoba and sub-Zoba levels, a Zoba HAMSET control PMU will be in place and will report to the Zoba medical officer.

Project structure within the MOH is clear at this point. The PIM should provide a clear picture of project administration at the regional and sub-regional levels, with a focus on how coordination of activities on a daily basis will be maintained at these administrative levels. The PIM will include a definition of roles of the non-government entities involved in implementation, such as the NUEW and NUEYS.

4.3 Procurement issues:

The project, despite its apparent complexity due to the number of ministries involved, has a good probability of being implemented in a satisfactory way because of the following reasons:

a) Adequate capacity of the existing PMU to carry out international and national competitive bidding and shopping (with previous satisfactory performance under IDA-financed project) adding to a strong commitment by all participating agencies;

b) Medium term procurement planning. Procurement of major inputs such as condoms, mosquito nets, pesticides, drugs, laboratory reagents, and test kits, will be based on medium-term (three years) requirement forecasts and expenditure plans. This involves the establishment of a resource envelope, including contributions from the GOE and the major donors. It will be carried out by the PMU of the ongoing IDA health project that already has proven experience on these matters;

c) Adequate coordination and management structure, leaving to the individual ministries, the full responsibility for the implementation of their respective sub-components, and

d) Satisfactory staffing at central level for most leading executing agencies such as MOLG, MOF and MOE. Additional staff are being trained at training institutes such as Eastern and Southern Africa Management Institute (ESAMI). However, the staffing situation needs may evolve during project implementation as more qualified staff will be required at the Zoba level.

The satisfactory performance of this project is directly related to a realistic procurement implementation plan to be approved and closely monitored by the IDA, especially in the first year of project implementation.

4.4 Financial management issues:

Financial management and reporting. The PMU will be responsible for ensuring that financial management and reporting procedures for the project will be acceptable to IDA. Under the guidance of the Director, the PMU will be responsible for the entire financial management, accounting, and disbursement functions of the project, including management of the Special Account, processing contracts and payments for goods and services. Consultants will be hired to help the PMU adapt the existing financial management system including a comprehensive manual of financial procedures, chart of accounts, and fully integrated project accounting structure, using an appropriate accounting software for the demands of a multisectoral decentralized project. In addition, a suitably qualified and experienced project financial officer would be recruited to participate in the development of the financial management system, and to guide and direct the financial management operations of the project.

The financial management system will produce project financial statements including a summary of sources and uses of funds, special account reconciliation statement, cash withdrawal statement, and cash forecast. The chart of accounts will facilitate the presentation of summary expenditures by component, activity and disbursement category. The PMU will maintain accounts, make payments for eligible expenditures, and manage the special account to be opened for the project.

Overall, the project will satisfy IDA's minimum financial management requirements, but with risks associated with general capacity limitations in the implementing agencies due to limited number of staff with well-developed technical skills and professional accountancy accreditation. There are also organizational risks associated with adapting and elucidating standards and procedures that give guidance for internal control and accounting, with clear delegation and segregation of duties. These risks may result in unintentional errors, omissions, miscalculations, late submission of financial statements, delay in the flow of funds and financial statements that do not reach international standards. Successful implementation of the financial management action plan will, however, allow the project to satisfy IDA's minimum requirements under *OP/BP10.02*.

Since the designated project accounting system is being adapted, there is not in place a financial management system that can provide the information required by the IDA for the project management report (PMR) based disbursements as stipulated in the Loan Administration Change Initiative (*LACI*) Handbook. Thus, in the short-term, existing disbursement procedures, outlined in the IDA's *Disbursement Handbook*, will be followed (i.e. direct payment, reimbursement and special commitment, if appropriate).

The appointment of a reasonably qualified and experienced project financial officer as well as the successful implementation of the adapted financial management system, with the help of financial management consultants, should facilitate the introduction of PMR-based disbursements within 18 months of effectiveness. Actions required for attaining *LACI* compliance have been developed and agreed with the borrower at appraisal. A financial management review of the program should be undertaken by an IDA financial management specialist within 12 months of effectiveness to assess progress and initiate the process of conversion to PMR-based disbursement procedure.

The appraisal mission reviewed an outline of the manual of financial procedures to be prepared with the help of financial management consultants. *A draft of the manual was submitted to the IDA for review prior to negotiations. During negotiations, a schedule was discussed and agreements reached regarding key milestones for effectiveness* (for example, the appointment of the Project Financial Officer and final manual of financial procedures and the establishment of a dedicated project accounting system).

5. Environmental: Environmental Category: B (Partial Assessment)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

An Environmental Analysis (EA) was undertaken to review the elements of the National Malaria Control Program that may lead to negative environmental impacts unless properly planned and managed, namely the use of chemicals. The EA reflects and responds to both the GOE's "National Environmental Assessment Procedures and Guidelines" for project preparation, and the IDA's requirement regarding OP4.09 (Operational Procedures 4.09-Pesticide Management). The EA was cleared y the Eritrean Department of Environment (DOE) on June 20, 2000. The EA has been made available to stakeholders, including the civil society, through distribution to the 6 Zobas, national and bi- and multilateral agencies, NGOs and several civil society groups (see consultation in 5.4 below).

The EA concluded that the main concern of the Malaria Control Program (MCP) is the use of DDT for

residual house-spraying. The EA however concluded that: a) only 16% of the houses at risk of malaria are sprayed with DDT; and b) as currently used, and as proposed in the HAMSET project, this use is consistent with WHO guidelines (WHOPES) and the POPS exemption (which determines "specific use in health when effective, and in high risk areas to prevent epidemic conditions"). The EA recommends improving surveillance and monitoring of malaria trends to improve efficacy of both vector control, and prevention of epidemics, as well as replacing DDT by safer chemicals. A Pesticide Management Plan (PMP) was prepared following the EA conclusions and recommendations. Accordingly, pesticide selection, distribution and use will follow the EA recommendations and will be done by fully trained health personnel. *During negotiations, the Government gave assurances that: (i) the PMP will be implemented in a manner satisfactory to IDA; (ii) procurement of chemicals for control of malaria epidemic, will fully abide by IDA standards which follow WHO guidelines. Procurement documents will clearly state that all chemicals to be procured will be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the IDA; and (iii) MOH will present by the end of the second year, a program and schedule for substituting DDT residual house-spraying by chemicals or techniques that are safer to the environment and human health, as satisfactory to IDA.*

5.2 What are the main features of the EMP and are they adequate?

The PMP responds to the issues raised by the EA, and will be an integral part of the HAMSET project, that is, its activities are complemented by the project's several other components. It consists of four major activities summarizing the EA's recommendations: a) test efficacy of DDT and alternative insecticide compounds to initiate the phase-out schedule for use of DDT; b) capacity building and strengthening the national MCP, focusing on entomology and epidemiology training as appropriate, collection of baseline biological data to support implementation and monitoring of integrated vector control; c) develop IEC strategy for community-based implementation and maintenance of insecticide impregnated bednets that focus on community education and participation, is based on local knowledge and practices, and is adapted to community organization; and d) improve collection and analysis of data for information on cost-effectiveness for the different (integrated) methods for malaria vector control.

5.3 For Category A and B projects, timeline and status of EA:

Date of receipt of final draft:

The EA was received by IDA on June 27th, and sent to the InfoShop on June 30, 2000. The Pesticide Management Plan (PMP) was cleared by IDA on July 26, 2000.

5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

Stakeholders were consulted for both the Environmental Screening and the EA through visits by selected MOH staff and consultant, and IDA mission members. Consultations included unstructured and structured interviews and group discussions. The stakeholders consulted included the DOE (Ministry of Land, Water and Environment), Ministries of Health and Agriculture, Zoba and sub-Zoba Government officials, staff and patients at Zobas' clinics and hospitals, community members in the Zobas, village leaders, and related agencies and partner organizations such as UNHCR, WHO, USAID, etc. The EA was carried out over three weeks in April-May, 2000, and included field visits to the malaria zones, and contacts with health and other pertinent staff and people in Asmara as well as in the malaria zones.

5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

Several project indicators will directly and indirectly evaluate project impacts on the environment. Mechanisms include improved surveillance, monitoring and evaluation systems for epidemic forecasting,

chemical use and environmentally validated vector control methods, as well as random survey, and project monitoring of improvement in school and health facilities' waste management and sanitation. The PMP will also include MCP-supervised community monitoring of vector control pilot sub-projects and potential impacts (Monitoring of DDT toxicity would require a time span beyond project life, and does not apply particularly because DDT will be phased out).

6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

About 80% of the population is rural, and a total of 30% is semi-nomad. The majority of the urban population is directly linked to rural life through family ties and trade. Prior to the latest conflict (May 2000) Eritrea had started resettlement of 200,000 refugees. In the May conflict, over a third of the population was displaced.

Social stigmas associated with HAMSET may potentially decrease the impact of the project. Some key targets groups may be difficult to reach. The project design seeks to reduce the barriers through adequate behavioral and social research, communication and education. The GOE's policy is clearly pro-integration. Communication campaigns will be designed to stress integration. To foster social inclusion and equity empowerment of communities and to promote social cohesion, the project will support the extension of several strategies proven successful, such as: i) sensitization at an early age in schools; ii) peer support; and iii) use of social workers, women and youth as agents for change. In addition, the project will pilot strategies to determine their viability and effectiveness, including: i) mobile strategies for semi-nomadic groups; and ii) community empowerment through community identification and design of health support solutions and education.

6.2 Participatory Approach: How are key stakeholders participating in the project?

Project preparation involved extensive participation of line ministries, the Zobas administration, and organizations that work extensively with communities. The communities, MOI, MOE, the Zobas, religious leaders, conscripts, NGOs, and the HAMSET control program of the MOH are the principal stakeholders, and beneficiaries, of the project. Representatives of these groups are part of the National and Zoba HAMSET Technical Committees, participated in the National Malaria Conference and numerous meetings, seminars and training sessions on HAMSET control organized by the GOE and partners. In addition, these groups will implement activities under the project, thus ensuring continuous participation and feedback. The project has also been extensively discussed with, and its design supported by, key external partners such as the WHO, UNHCR, Italian Cooperation, UNICEF, USAID, and others.

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

Consultation and collaboration with CSOs and NGOs has been integrated in project preparation, as described in 6.2 above. Summarizing, several representatives of civil society have participated in project design and will participate in project implementation through various means, including service delivery, skills transfer, partnerships for community mobilization, monitoring and evaluation, etc.. The project has extensive involvement of community participation that in turn, requires participation of civil society groups.

6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

The project will be coordinated by a multi-sectoral Ministerial group with representatives from the nine

Ministries mostly involved with social development and community work (see also 6.2 above). The leading agency will be the MOH, and implementation will be mostly at the Zoba level. The different components are integrated and will strengthen the Zoba institutions, supporting the decentralization process initiated in Eritrea-- as well as the central level, as necessary to support project implementation by the Zobas. The project relies on and therefore, involves civil society groups, including NGOs, and is based on extensive participation of the communities. Community participation is ensured by the formal and informal community structures, and by Eritrea's 30 years of tradition with community collaboration; this participation will be strengthened with technical assistance to enhance the community-Zoba links. In addition, project design addresses the health and socio-economic impact of HAMSET, supports social safety-nets to reduce the vulnerability of the poor, and stresses community self-reliance.

6.5 How will the project monitor performance in terms of social development outcomes?

The project indicators are all inherently aimed at monitoring social impact and social development outcomes. The key indicators focus on quality of life and social inclusion, through improvement of health and public health. The key stakeholders will participate in annual project evaluations to support feedback on performance, research findings, and lessons learned. The project has been designed as a process supporting mechanism to ensure that evaluation findings are included in future implementation plans.

7. Safeguard Policies:

7.1 Do any of the following safeguard policies apply to the project?

Policy	Applicability
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	● Yes ○ No
Natural habitats (OP 4.04, BP 4.04, GP 4.04)	○ Yes ● No
Forestry (OP 4.36, GP 4.36)	○ Yes ● No
Pest Management (OP 4.09)	● Yes ○ No
Cultural Property (OPN 11.03)	○ Yes ● No
Indigenous Peoples (OD 4.20)	○ Yes ● No
Involuntary Resettlement (OD 4.30)	○ Yes ● No
Safety of Dams (OP 4.37, BP 4.37)	○ Yes ● No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	○ Yes ● No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)	○ Yes ● No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

The project includes a Pesticide Management Plan that will, supported by other project components, phase out the use of DDT by replacing it by a combination of safer insecticide and an integrated malaria control program. The integrated program includes technology, techniques and methods that stress malaria prevention and natural management of the disease vector, and that range from Government implementation to full scale community participation. The project will specifically support environment-based activities that focus on the communities as primary beneficiaries, and that stress post-conflict socio-environmental conditions. Surveillance, improved data collection, measuring efficacy of control methodologies, and testing of alternatives are included in the project to reduce reliance upon, and ensure safe use of insecticides. The credit agreement includes a legal covenant requiring the presentation, by the end of the second year, of a program and schedule for substituting DDT residual house-spraying by chemicals or techniques that are safer to the environment and human health, and satisfactory to IDA.

F. Sustainability and Risks

1. Sustainability:

Prevention of a full-blown HIV/AIDS epidemic will impact sustainability of all development efforts in Eritrea. The social and economic impact of a rapidly spreading epidemic is hard to quantify, but it is clear that the costs across all sectors would be very high. It is of no use to train, educate, or cure people if they will, subsequently, die of AIDS. Mitigating the epidemic will, therefore, reduce costs of treatment, morbidity and mortality.

The project will increase the health sector's institutional capacity to develop policies, implement programs, collect and analyze data as well as monitor and evaluate effectiveness of interventions. HAMSET require a long-term effort to be effectively controlled and contained. Therefore, this increased capacity will enhance sector sustainability by enabling a long-term, well-targeted, and multi-sectoral response as adequate. Inclusion of cost-recovery mechanisms in this project would hamper the immediate response necessary to strengthen the sector, and unacceptably delay project implementation. The potential cost-recovery mechanisms will be analyzed during the health sector review. The analysis will provide a basis to ensure future sustainability in the sector.

The project constructs minimal infrastructure. Instead it rehabilitates existing structures to make them more effective. Prior to consider construction of new social centers the local government will carry out an inventory survey of existing facilities at village and sub-Zoba levels to identify existing structures that could be used for social purposes and propose how to maximize their use. In war affected areas, there may be a need to replace destroyed infrastructure. This will be done through the emergency recovery project now under preparation. It is, therefore, expected that the incremental recurrent costs of the HAMSET project will be negligible.

Due to the adoption of cost minimizing measures, the cost tables of the project identify minimal incremental recurrent costs. The GOE, and specifically the Ministry of Finance, has also indicated that it is ready to increase per capita allocation for activities related to HAMSET control to improve project implementation and sustainability.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
Lack of coordination and sequencing of HAMSET control activities between external partners/funding agencies.	M	The GOE has decided to organize regular meetings of all external partners to monitor on-going programs and to coordinate funding of new programs. At the same time, the Government has launched, in collaboration with all partners, the preparation of a health sector strategy and a 5-year health investment program. All activities financed by external agencies will fall within the agreed-upon Government program.

Lack of coordination among implementing agencies at the National as well as at the Zoba levels leading to slow decision-making and slow disbursement of funds, particularly within the decentralized framework.	M	The project institutional and implementation responsibilities are clearly defined at all levels and are described in the PIM. A financial procedures manual that will pay special attention to the multi-sectoral and decentralized management nature of this project is being prepared. The project is building on the successful management of the on-going health project. The existing PMU will be strengthened to cope with additional responsibilities.
Program interventions may fail to produce desired results.	M	The project will build on successful experiences in Eritrea as well as in other countries. Phasing/scaling up of interventions will take into account institutional capacity. M&E will systematically keep track of program performance.
From Components to Outputs		
Delays in preparation and official approval of a coordinated sectoral strategy.	N	Government has expressed its commitment to the preparation of a coordinated sectoral strategy. Such an effort is well underway with respect to HAMSET and is being launched sector-wide.
Lack of understanding of project goals and objectives may result in poor implementation and thus low impact.	M	Participative approach to project design. All implementing agencies and associations have been partners in needs assessment as well as in identifying the interventions. Steering and technical committees includes officials from key ministries and Zobas.
Communication campaigns, peer and social pressure fail to induce behavior change.	M	Comprehensive communication strategy including multiple interventions will be prepared in the first year of the project. Its preparation will be initiated during the project launch.
First year assessment may show that overall needs for facility renovation/construction may be more than can be supported by project funds.	M	The sectoral strategy will define infrastructure needs which can be supported by other external partners.
Overall Risk Rating	M	Project risks would be minimized through the development of the coordinated strategy and through the phased approach.

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N(Negligible or Low Risk)

3. Possible Controversial Aspects:

None

G. Main Loan Conditions

1. Effectiveness Condition

a) the Borrower has put in place financial management and accounting systems for the project in form and substance satisfactory to the Association;
b) the Borrower has furnished to the Association a Manual of Financial Procedures in form and substance satisfactory to the Association;
c) the Borrower has paid into the Project Account the Initial Deposit.

2. Other [classify according to covenant types used in the Legal Agreements.]

During ***negotiations,*** the Government agreed on the following:

- GOE will submit to IDA a document that maps out all sources of financing for HAMSET control activities;

- GOE will implement the Pesticide Management Plan in a manner satisfactory to IDA, procure chemicals for control of malaria epidemics according to IDA standards which follow WHO guidelines, and present by the end of the second year a program and schedule for substituting DDT residual house-spraying by chemicals or techniques that are safer to the environment and human health;

- The Project shall be implemented in accordance with the PIM, as may be amended from time to time with the consent of IDA;

- GOE will establish and maintain, with terms of reference acceptable to IDA, a PMU which shall be adequately staffed and shall report to the MOH;

- GOE will maintain appropriate information systems necessary to enable the monitoring of project implementation and the evaluation of the achievement of development objectives, based on the indicators in annex 1;

- GOE will furnish to IDA semi-annual progress reports on project implementation before March 31 and September 30 of each project year;

- GOE shall conduct annual progress reviews, jointly with IDA; one of the reviews will be a mid-term review of the project to be conducted not later than September 2003; promptly after the reviews, GOE will implement its recommendations;

- At the mid-term review and at project completion, GOE shall jointly with IDA carry out Program performance review using indicators in annex 1 of this report, based on data to be made available by GOE to IDA at these times and at the baseline;

- Financial covenants would be complied with; these include, *inter alia* an audit by independent and qualified auditors records and accounts for each year with a separate opinion on SOEs, in accordance with international auditing standards and procedures, to be submitted to IDA not later than six months after the end of each fiscal year.

H. Readiness for Implementation

☐ 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.
☒ 1. b) Not applicable.

☐ 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
☒ 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
☐ 4. The following items are lacking and are discussed under loan conditions (Section G):

Procurement documents for the first year are under preparation. The draft PIM was evaluated during negotiations.

I. Compliance with Bank Policies

☒ 1. This project complies with all applicable Bank policies.
☐ 2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

Eva Jarawan	Arvil Van Adams	Oey Astra Meesook
Team Leader	**Sector Manager**	**Country Manager**

Annex 1: Project Design Summary

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Sector-related CAS Goal: Promote growth and poverty reduction by enhancing human resources.	**Sector Indicators:** IMR/CMR maternal mortality ratio	**Sector/ country reports:** Country Statistical Report.	**(from Goal to Bank Mission)** Stable relations with government of Ethiopia. Broad and sustained development.
Project Development Objective: To reduce the mortality and morbidity of the Eritrean population due to HAMSET through an increase in the utilization of quality, effective and efficient health services for HAMSET prevention, diagnosis and treatment, supported by healthy practices.	**Outcome / Impact Indicators:** • a stabilization in the HIV seroprevalence among adults aged 15-24 years. • a reduction in Malaria death rate (in under five and pregnant women). • increase in the proportion of diagnosed and successfully treated new smear-positive TB patients. • a reduction in prevalence of severe anemia in women of child-bearing age.	**Project reports:** Surveillance system.	**(from Objective to Goal)** Economic stability maintained. No major environmental issues. Efforts to determine baseline for indicators successful by end of FY2002. Effective implementation of other developmental efforts, e.g. female education, infrastructure development.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Output from each Component:	**Output Indicators:**	**Project reports:**	**(from Outputs to Objective)**
1. HAMSET policies and interventions reflect expected changes in prevalence of HAMSET.	# actions in annual work program directed at expected, high priority HAMSET problems.	Operational research reports. Surveillance system. MOH activity reports. Emergency preparedness unit activity reports. Annual joint policy and planning review report.	All partners inputs (external and local) are implemented in a coordinated manner.
2. Eritrean citizens have the knowledge and means to change behaviors to prevent HAMSET transmission.	**Communication programs effectiveness:** % community members who report HAMSET. brochures/posters available. % respondents with correct knowledge of HIV. transmission and prevention methods. % of retail outlets and service delivery points with condoms in stock. **Behavioral change:** Condom-specific contraceptive prevalence rate (CPR). % children <5 and pregnant women sleeping under insecticide-treated nets. **Health seeking behavior:** % of patients with uncomplicated malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hours of onset of symptoms (in rural towns).	KAP Studies. DHS surveys. Random surveys. KAP studies. Social Marketing reports, Market Surveys. MOE activity reports.	Effective complementarity between health services and improved health behaviors.

	Environmental health: % communities with access to acceptable vector control methods. **Effectiveness of education system:** % secondary school children, teachers and adult learning participants able to describe cause and means of prevention of HAMSET. % secondary schools with HAMSET counseling services. % schools with clean, working latrines. **Effectiveness of military health services:** CPR (condom-specific)		
3. Health facilities identify and treat HAMSET effectively.	**Provision of safe blood:** % blood units transfused that have been screened for HIV according to national guidelines. % Zoba hospitals with blood donor recruitment program. **Effective counseling:** % Zobas that have at least one center staffed with trained HIV counselors. **Effective diagnosis and care:** % health care professionals trained in diagnosis of HIV/AIDS and care of common opportunistic infections. % health care facilities reporting disruption in stock of anti-malarial drugs for more than one week during the previous 3-month periods.	Health facilities statistics. Health facilities statistics. MOH report activity reports. Zoba medical officer activity reports. Random surveys.	Adequate maintenance of facilities and equipment.

	% communities with at least 1 community health worker trained in management of fever and recognition of severe febrile illness. % health staff able to recognize the symptoms of TB. % communities that have access to DOTS. % diagnosed TB patients under DOTS. % patients diagnosed TB positive that are smear-positive. % smear-positive patients diagnosed as newly declared cured.		
4. Affordable, effective community-based mechanism to minimize spread of HAMSET is ready for replication.	# Approaches for community-managed HAMSET response programs validated and ready for replication.	Community-based statistics. Activity reports for pilot activities.	Continuous Government support for decentralization and empowerment of the communities.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Project Components / Sub-components:	**Inputs: (budget for each component)**	**Project reports:**	**(from Components to Outputs)**
1. Collect and analyze information on HAMSET to facilitate evidence-based decision making and rapid response.	**US$ 5.10 millions**	Project Monitoring Systems. Annual Reviews. Mid Term Review.	Continued availability of qualified staff at the MOH and other ministries.
2. Multi-sectoral control of HAMSET transmission. 2.1 Promote health behaviors through multi-level communication. 2.2. Promote healthy life styles through the education system. 2.3. Enhance access to preventive, diagnostic, and treatment care for conscripts. 2.4. Promote environmentally sound, cost-effective techniques for malaria vector control.	**US$ 11.16 millions**	KAP surveys. DHS surveys. Random surveys. Project Reports. Annual Reviews. Mid Term Review.	Government adopts adequate policies following recommendations of operational research.
3. Strengthen HAMSET diagnostic, health care, and counseling services.	**US$ 20.69 millions**	Project monitoring system. Random surveys. Annual Reviews. Mid Term Review.	
4. Community-managed HAMSET response programs.	**US$ 9.89 millions**	Project monitoring system. Random surveys. Annual Reviews. Mid Term Review.	

E. Project Management and Evaluation.	**US$ 2.72 millions**	Project monitoring system. Random surveys. Annual Reviews. Mid-Term Review.	

Annex 2: Detailed Project Description

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

The overall objective of the project is to reduce the mortality and morbidity of the Eritrean population due to HAMSET through an increase in the utilization of quality, effective and efficient health services for HAMSET prevention, diagnosis and treatment, supported by healthy practices.

The project will benefit all regions of the country. Some interventions, such as communication for behavior change, will cover about 80% of the Eritrean population; other activities will cover specific groups, such as people living in a malaria-affected areas (2.7 millions) and families affected by AIDS. Specific interventions will be targeted towards vulnerable or high-risk groups, e.g., conscripts (300,000), adolescents, commercial sex workers, migrant workers. Secondary beneficiaries of the program will be health personnel, teachers, and social workers.

The Ministry of Health will serve as the overall coordinating agency. Cooperating agencies include the Ministries of Education, Local Government, Labor & Human Welfare, Agriculture, Information, and Defense medical services, as well as the National Unions of Eritrean Women and Youth Students. The project will be implemented in a decentralized manner in accordance with GOE's decentralization law.

The majority (47.2%) of IDA financing is for component 3, which supports the major health sector interventions: diagnosis, care and counseling for HAMSET. These activities are strengthened by smaller components which help to target care, control transmission in the community and promote community-managed responses to HAMSET.

The project has the following components structure:

1. **Collect and analyze information on HAMSET to facilitate evidence-based decision making and rapid response.**
2. **Multi-sectoral control of HAMSET transmission.**
    - 2.1 **Promote healthy behaviors through multi-level communication.**
    - 2.2 **Promote healthy life styles through the education system.**
    - 2.3 **Enhance access to preventive, diagnostic, and treatment care for conscripts.**
    - 2.4 **Promote environmentally sound cost-effective techniques for malaria vector control.**
3. **Strengthen HAMSET diagnostic, health care, and counseling services.**
4. **Community-managed HAMSET response.**

By Component:

Project Component 1 - US$5.10 million

Collect and analyze information on HAMSET to facilitate evidence-based decision making and rapid response: The Government identified the following key issues that reduce the effectiveness of current Government interventions to minimize HAMSET.

Symptoms for Concern	*Underlying Reasons and Causes*
Changing Ecology of HAMSET and Resistance to Current Control Methods Threaten Society	**Lack of Mechanisms that Identify and Link Changes in HAMSET Factors to Management Decisions**
• Rapidly growing morbidity and mortality from both existing and new diseases. • Growing resistance of mosquitoes and malaria parasites to chemicals and drugs. • Growing incidence/resistance of STD/TB cases. • Danger that epidemics could begin and spread rapidly before they could be detected and containment measures could begin.	Lack of research that provides information on : • Role of population behavior in HAMSET transmission. • Changes on epidemiological profile of HAMSET. • Changes needed to control HAMSET. • Lack of staff with required research skills. Current information systems fail to: • Provide reliable and timely information on the prevalence of HAMSET. • Detect changes in disease patterns. • Forecast where rapid disease change will occur. • Provide information in the form that managers require for decision making. • Lack of means to respond to epidemics. • Top-down approach to planning and implementation. • Weak inter-sectoral coordination: HAMSET diminishes productivity in all sectors, yet institutional efforts are concentrated in MOH.

This component will strengthen GOE capacity to collect comprehensive information on HAMSET in a timely and efficient manner, to analyze it, and to use the information for policy formulation, annual work program planning, and for rapid response to changes in disease trends, e.g., epidemics. That capacity would exist at the central, Zoba, and sub-Zoba levels. The constituent parts of the component include:

i) Improve HAMSET surveillance techniques for providing timely and accurate data. Activities include renovation of 6 health facilities, one in each Zoba, to become sentinel sites for HAMSET surveillance. Each site will be supplied with microscopes to permit definitive diagnosis of malaria and TB. At the Zoba level one computer will be provided so that surveillance data can be entered and analyzed, and Zoba staff will be provided with training in data management, decision making, and surveillance system management. The component will provide the required consulting services and workshops. In the later part of the project, the component will provide improved electronic communication between the Zoba and central levels to facilitate transmission of surveillance data and reports, possibly through internet connections. The component will also include incremental recurrent costs for staff salaries, HIV/STD seroprevalance surveys, test kits, and reagents, equipment/computer maintenance and office supplies.

ii) Establish an epidemic forecasting and preparedness system by developing a national strategy and associated guidelines for public health personnel at central, Zoba, and sub-Zoba levels, formulating a skills-development curriculum, and training of trainers. The component will also develop a strategy for predicting upsurges in HIV/AIDS, STDs, and TB. Seven meteorological sites will be established to ensure accurate collection and reporting of rainfall information. In addition to providing the required consulting services and training, the component will provide for printing and dissemination of guidelines, and provision of reserve stocks of drugs and reagents.

iii) Improve Eritrea's capacity to carry-out operational research for identifying changes in HAMSET by establishing research priorities and capacity within the country. The component will: (a) introduce procedures that require operational managers, at national and Zoba levels, to determine the nature of the research conducted; (b) introduce a systematic approach for research on human behaviors and epidemiological factors that affect HAMSET transmission; and (c) expand the number of staff trained in the research methods required. Research topics will focus on program management, epidemiology, entomology, drug resistance, community taboos and practices, individual behaviors, and biological vector control.

The component will construct entomological laboratories in the three Zobas that are most affected by malaria. Each laboratory will be equipped with entomological microscopes, equipment, and a 4-wheel drive vehicle for field surveys and studies. The component will provide the required consulting services and a HAMSET research fund for undertaking the research projects identified. Incremental recurrent costs will include staff, replacement of reagents/supplies, and building and vehicle operations and maintenance.

iv) Introduce methods to link the results of research and M&E to policy formulation, annual work planning, and budgeting by introducing new management methods for systematic use of information in work cycle planning activities. The component will provide international monitoring and evaluation experts, workshops, computer hardware and software, staff skill development workshops, and incremental recurrent costs for systems support and maintenance.

v) Strengthen management of communicable diseases within the MOH by introducing improving operation processes and providing young managers exposure to relevant international experience. The component would provide computers and equipment, programming planning courses, study tours, and financial management courses.

Project Component 2 - US$11.16 million

Multi-Sectoral Control of HAMSET Transmission: The Government identified the following issues and underlying reasons for the low impact of recent efforts to reduce transmission of HAMSET:

Symptoms for Concern	*Underlying Reasons and Causes*
Current Health Care Mechanisms Deal Ineffectively with HAMSET Transmissions .	**Lack of Communications Systems that Create Awareness and of Means for Dealing with Risky Situations**
• Incipient HIV/AIDS could explode to become major epidemic, threatening Eritrea's social fabric and base for economic development. • Growing incidence of severe cases of malaria and STDs/TB. • Growing infertility caused by STDs. • Danger of emergent health problems caused by DDT and other pesticides used to control mosquitoes. • DDT may no be longer produced in the next five years	• People, especially at-risk groups, lack information and awareness concerning the causes and dangers HAMSET. • Ineffective methods and insufficient personnel for motivating behavioral change. • Lack of access to the physical means for preventing HAMSET infections. • Cultural barriers to disease prevention: • Lack of open talk on sexuality. • Denial of existence of HIV/AIDS. • Phobia of HIV/AIDS amongst youth. • Stigma attached to HIV/AIDS, STDs and TB. • Declining age of first sexual encounter. • Youth lack venue where they can relate to HAMSET problems in their own ways. • Difficulties in bringing about behavioral change. • Highly mobile population. • CSW and mobile workers face risky situations frequently. • Lack of knowledge on safer, cheaper alternatives for in-house mosquito control.

This component brings together all of Eritrea's institutions for communicating with people and builds on their existing mechanisms to promote healthy and safe behaviors. The component focuses especially on at-risk groups to ensure that they have access to environmentally adequate, physical means to prevent transmission of HAMSET. The component consists of four sub-components:

a) ***Promote healthy behaviors through multi-level communication*** **(US$ 3.64 million)**

The project will enable the Communications Unit in MOH to coordinate the communication activities of all implementing partners and build capacity at Zoba and sub-Zoba levels. It will enable Zoba level IEC staff to: (i) conduct formative research to gain a better understanding of target audience attitudes and beliefs about benefits and barriers to adoption of desirable behaviors; (ii) develop a communication strategy for coordinating the programs of all implementing partners and conduct communication activities to promote healthy behavior among target populations; (iii) coordinate and supervise the work of partner agencies at the Zoba and sub-Zoba level; and (iv) develop a system to monitor changes in knowledge, attitudes, beliefs, and behavior among target audiences reached by communication campaigns. The project will support orientation of leaders of NGOs, and senior officials of other line ministries as well as national advocacy efforts.

Implementing partners and their target audiences include:

- Ministry of Information: the entire population.
- Ministry of Local Government: specific audiences within the Zoba.
- Ministry of Education: students, teachers, and participants in adult literacy courses.
- Ministry of Tourism: tourism workers, managers, and guests.
- Ministry of Transport and Communications: truck drivers.
- National Union of Eritrean Women: women groups.
- National Union of Eritrean Youth and Students: youth groups and clubs.
- Confederation of Eritrean Workers: labor unions, especially construction workers.

The Communications Unit in MOH will coordinate the design of the strategy and contents of individual program activities with the implementing partners. It will also take lead responsibility for training courses to introduce improved communications skills to the staff of all the partners. Each partner will implement its own communication program because every partner has a different comparative advantage and penetration for different audiences. To facilitate coordination of on-going communications programs, GOE will establish a Communications Coordinating Committee for ensuring consistency amongst all players. All partners involved in communications for behavior change will be represented in the Committee. This model ensures coordination of the multiple communication efforts for behavior change that are being undertaken in the country (e.g. the IECD project). Partners will closely coordinate with other projects (IECD) and financing partners (USAID) to avoid duplication and contradiction of messages and overwhelming audiences.

Communication programs will include: a) advocacy campaigns to raise awareness and influence decision makers regarding HAMSET control interventions; b) public awareness campaigns about HAMSET prevention and high-risk behaviors; c) education and communication interventions targeted to high-risk groups; and d) campaigns to de-stigmatize HIV/AIDS, STD and TB.

The project will finance communications experts, training of social change agents and community leaders in basic concepts of HAMSET epidemiology transmission and prevention, overseas training of 3 staff on marketing and IEC methodologies, in-country basic training for social workers at diploma and certificate level, social and opinion studies for the development of communication materials, design and implementation of communication campaigns and materials, costs for community mobilization, and communication equipment. The project will also finance purchase of vehicles or hiring of transport. Following a model that has been successfully implemented in Uganda, Smith Kline & Beecham has agreed to second a communications expert to be based in Asmara to support the Communications Coordinating Committee.

b) Promote healthy lifestyles through the education system **(US$ 5.51 million)**

The component aims to improve educational outcomes to promote good health and prevent the spread of HAMSET. The framework of the FRESH partnership (Focusing Resources on Effective School Health – WHO, UNESCO, UNICEF & IDA) has been used to prioritize the most cost-effective actions, particularly for the poor and disadvantaged. The approach will be implemented through the Ministry of Education (MOE) school health program in both the formal and non-formal systems. The project will finance activities that aim to: (i) strengthen centrally and regionally skills in school health programming; (ii) promote in students and teachers healthy practices and behavior change; (iii) establish school based support and health services; and (iv) promote healthy practices and behavior change in adults:

· *Skills in school health programming and monitoring* by establishing a long-term link with an international network on school health (the Partnership for Child Development) in order to transfer international school health programming skills to managers within MOE. Over three years MOE/MOH staff will gain experience from other school health programs in regional countries and will acquire programming skills through short training fellowships. The component will conduct a situation analysis to lay the basis for the school health program. The project will provide electronic communications and 2 vehicles for the Project Management Division.

The component will establish long term monitoring through the national network of 75 school inspectors and 800 Parent-Teacher associations. Zoba-level and national workshops will provide an opportunity for sensitization, orientation, feedback, and program refinement. The project will arrange workshops for the 200 directors of secondary schools and the 600 directors of primary schools on the same frequency and schedule. Experience developed during the project will determine the level of dialogue that MOE will need to continue after the project to ensure sustainability of this monitoring system.

· *Promote in students and teachers healthy practices and behavior change* by (a) reforming the curricula at primary (Grades 4-5), Junior Secondary School, Senior Secondary School (Grades 8-9, 10-11), and teacher training levels; and (b) developing teacher manuals and supplementary pedagogic materials. The project will support special courses to transfer skills in undertaking and interpreting surveys of knowledge, attitudes, practices, and prejudices amongst all 5 target populations, and in designing, preparing, and testing the materials. The project will produce secondary school and teacher training materials in English for 3,000 teachers and 170,000 students. It will produce the basic education level materials in 8 regional languages for 6,000 teachers and 85,000 students. MOE will undertake formative assessments and reprinting as necessary, closely coordinating mass media messages through the Communications Coordinating Committee established in subcomponent 2.1, on which MOE is represented.

The project will ensure that all existing teachers and teachers entering the education system in the future, will understand and support the new curriculum. The project will support a sequence of training of trainers workshops - already developed with UNICEF by regional countries as part of the FRESH partnership - to achieve universal coverage rapidly. At the secondary level, the workshops will train 200 trainers to reach 2,500 teachers by the end of the second project year; at the primary level, 6,000 teachers before the end of the third project year. Staff of the Teacher Training Institute and Faculty of Education at the University of Asmara, who provide pre-service education for new teachers, will participate in intensive training in project years 1 and 2, and thereafter, teach the life skills curriculum to all new teachers (currently about 600 primary and 50 secondary teachers per annum).

To reinforce healthy practices through a broad view of good health, the project will provide sanitation and basic garbage disposal for the 200 schools that are without adequate sanitation. (The IECD project will provide facilities for the remaining 150 schools that lack proper sanitation). The project will construct these facilitations in cooperation with the PTAs; it will provide separate facilities for boys, girls, and teachers. Each school administration will develop routine cleaning procedures and the PTA will develop and agree with MOE a long term maintenance program prior to construction beginning.

· *Establish school based health services* by establishing procedures for school-based counseling, testing alternatives to teachers for providing school based health services, and establishing school based health clubs. The project will develop guidelines, workshops to introduce appropriate skills to teachers, and minor recurrent costs. MOH will assess and validate the effectiveness of mobile health teams versus teacher-based approaches for health delivery of simple, safe, and familiar services, e.g., deworming,

provision of micronutrient supplements, and encouraging treatment-seeking behavior for students with malaria symptoms. The community school representative on the Kebabi committee for community-managed HAMSET response in Component 4, will be able to propose school-managed support as an alternative to be considered within the community resource envelope.

· *Promote healthy practices and behavioral change in adults* by enhancing MOE's radio broadcasts of adults education courses. With a network of 800 facilitators, it is the largest non-formal program of the Ministry of Education. The project will design and test new HAMSET modules for facilitators and supplementary materials for participants, coordinating the content with the Communications Coordinating Committee. It will translate the materials into 8 languages and publish a total of 60,000 copies. The 74 adult literacy coordinators will participate in a training-of-trainers workshop and then run a series of intensive 15-day workshops (2 per Zoba) to train the facilitators in the use of the new manuals and supplementary materials.

***c) Enhance access to preventive, diagnostic, and treatment services for conscripts* (US$ 1.33 million)**

The project will: (i) promote healthy behaviors through multiple channels of communication; (ii) strengthen health care services available to conscripts (including the availability of voluntary counseling and testing); (iii) promote the increased use of condoms and insecticide treated materials (ITMs); and (iv) establish a program to address HAMSET concerns in the context of demobilization.

· *To strengthen MOD's communication for behavioral change program,* the project will provide vehicles (2 4-wheel drive pickups, 2 vans, and 12 motorcycles), computers, and audiovisual equipment. The project will assist MOD to adapt the MOH procedures and materials for HAMSET control to the special conditions in which conscripts live. It will also provide workshops for training-of trainers, who will subsequently provide on-the-job training workshops to MOD medical staff in diagnosis and treatment of HAMSET, and communication for behavior change techniques.

. *To strengthen MOD's HAMSET health care services delivery*, the project will adapt MOH protocol manuals, renovate 4 diagnostic laboratories, provide 4 ambulances, and provide specialized training in HAMSET healthcare skills.

· *To strengthen the distribution system*, the project will provide a logistics management expert, introduction of computer-managed logistics system, and specialized training in use of the new system for storing and distributing condoms and ITMs.

· *To establish the demobilization program*, the project will provide an international experts to help design the program, adapt MOH materials for HAMSET behavioral change information, publish the adapted materials, and provide a voluntary HIV/AIDS testing and counseling service for conscripts who are about to be demobilized.

***d) Promote environmentally sound, cost-effective techniques for Malaria vector control* (US$ 0.69 million)**

The project will develop and implement a pesticide management plan (PMP) that will: (i) identify, test, validate and introduce safe, cost-effective chemicals to replace DDT; (ii) test and validate malaria biological vector control; (iii) develop a strategy for pesticide use and control; (iv) test community acceptance of technically validated methods and techniques; and (v) replicate socio-environmentally

validated malaria vector control methods. The testing of the alternative chemicals will provide a reliable method to replace the current residual house spraying by chemicals with safer methods to the environment and to human health.

The project will provide experts to help design the studies on efficacy and cost-effectiveness of alternative insecticides, workshops to review proposed studies and validate results, and vehicles, equipment, and the materials required to undertake studies. It also provides for monitoring and evaluation of the alternatives tested. Finally, the project provides US$ 0.22 million in the final 3 years of the project to replicate socio-environmentally validated control methods.

Project Component 3 - US$ 20.69 million

Strengthen HAMSET Diagnostic, Health Care and Counseling Services

The Government identified the following issues and underlying reasons for the low capacity of the health sector to provide adequate and cost-effective care to HAMSET patients.

Symptoms for Concern	*Underlying Reasons and Causes*
Structure of health care unable to deal with HAMSET.	**Lack of Effective Identification, Treatment and Support Methods**
• Patients risk HAMSET infection from blood transfusions. • Health facilities are unable to diagnose and treat HAMSET reliably. • HAMSET cases occupy up to 80% of health facility services.	• Inadequate safe blood banks. • Current diagnosis and treatment practices are designed to deal with traditional diseases. • Abuse and misuse of injection practices. • Improper disposal of syringes, needles and other waste. • HIV/AIDS has arrived recently and spread quickly.

The objective of the component is to reduce mortality and morbidity from HAMSET in general by increasing and improving the quality of health services. The strategies for managing HAMSET will include: (i) directly observed therapy, short-course (DOTS) for TB; (ii) rapid detection and treatment of malaria in health facilities and in the community, including IMCI for children < 5 years of age, with laboratory confirmation when available; (iii) management of severe malaria at referral facilities; (iv) voluntary counseling and testing for HIV; (v) management of opportunistic infections in HIV-infected persons; and (vi) syndromic management of STDs, with laboratory confirmation when available.

· *Establish safe blood banks in Zoba hospitals*. The project will establish four blood banks for Zoba hospitals. Under the current health project another two blood banks in the remaining Zobas are being established as well as a national blood bank in Asmara. This project will provide the civil works, equipment, consulting services to design guidelines for blood safety and courses to introduce blood transfusion skills. The project also provides incremental recurrent costs for blood bank supplies, and equipment and building operating and maintenance.

· *Improve diagnostic, treatment and counseling of HAMSET* through integrated in-service and on the job-training on HAMSET prevention and detection, case management, syndromic and laboratory diagnosis of HAMSET disease, as well as pre- and post-HIV-voluntary counseling and testing (VCT). The project will provide international short courses for improving skills in treating HAMSET, drug quality

control, and maintaining medical technology equipment. It will also provide incremental recurrent costs to establish a sustainable, in-service, counseling skills development program. As part of the VCT, the project will conduct pilot studies for the prevention of mother to child transmission (MTCT) of HIV.

· *Improve availability of basic medical materials and drugs required to diagnose and treat HAMSET in health facilities*. The project will support procurement and distribution of basic essential drugs and diagnostic materials to treat HAMSET (only opportunistic infections in the case of HIV/AIDS), surveys to assess the availability of drugs and medical materials, in-service and on-the job resource management training for MOH staff specially at facility level, and transport for drugs, medical materials and to provide supervision.

Project Component 4 - US$9.89 million

Community-Managed HAMSET Response:

The project will identify and validate community-managed affordable, effective mechanisms for minimizing the transmission and impact of HAMSET in the community. Validated mechanisms will be replicated in other similar areas in Eritrea. This component is a pilot in nature, because the exact nature of the most effective mechanisms to be used have yet to be identified. Nevertheless, success is to be expected because the general approach rests on Eritrea's more than thirty years' experience with successful community participation.

The component consists of two sub-components : (A) Community Counseling and Support Groups, and (B) Community-Managed Response.

(A) Community Counseling and Support Groups. The sub-component will strengthen community support services provided by the Ministry of Labor and Human Welfare. The project will provide a study tour to gain experience with systems for providing community support in regional countries, and then establish a community service to provide counseling as well as support groups for AIDS affected people. Mechanisms in the first project year that communities will consider will include different approaches at: (a) providing home-based care for families dealing with AIDS patients or families taking care of an AIDS orphan; and (b) community-managed efforts to identify malaria, anemia, STDs, and TB symptoms and danger signs, as well as to perform initial treatment and referral of serious cases. The project will provide consulting services to publish manuals, workshops to introduce improved skills, and workshops to assess the effectiveness of the strengthened community support services. The project also includes incremental recurrent costs for managing community services and providing incentives for community volunteers.

(B) Community-Manage Response. The sub-component will test the capacity of the communities to use their own community structures and socio-cultural fabric to identify, select, implement, and manage responses to the serious threats they face from HAMSET. More specifically, this part of the component will test the capacity of the communities, through a process-oriented approach to:

(i) Respond to technical information about the threats, causes, and means of prevention, care and cure of HAMSET;

(ii) Discuss and assess alternatives mechanisms for controlling HAMSET threats, both those suggested by village facilitators and from their own knowledge, e.g., about local plant species and medicinal applications that they use to prevent, cure, and/or control malaria, diarrhea, and other health problems. Communities and health staff will learn from each other about effective means for dealing with HAMSET threats;

(iii) Identify and input their own grassroots and socio-cultural contributions to HAMSET messages, and possible methods of disease prevention, care and cure, and community-provided support services;

(iv) Select from a suggested menu of alternatives and agree on a set of preventive/control actions, the costs of which fit within a limited "resource envelope" consisting of resources provided from the project and the community (in kind);

(v) Implement and monitor with selected partner agencies the actions they have selected; and

(vi) Evaluate and report the impact of their HAMSET control actions within their community.

Lessons learned during the initial phases will be incorporated into the plans for subsequent phases. The component will link with the IDA-financed Eritrean Integrated Early Childhood Development (IECD). The component will cover all Zobas and sub-Zobas, and will include at least one Kababi in project year 1 in each different cultural area, including semi-nomads and resettled communities, and in each ecological zone. The program will start with a maximum of 12 pilots in project-year one, and will expand to other kababis beginning in project year 2, once the project has identified efficient/effective management, decision, implementation, and M&E mechanisms. This phasing will allow for internalization of community-managed processes among field staff and community members, community-based workers and testing of a number of alternative arrangements in the initial phases.

At the Zobas, the project will provide Community Facilitation Assistants (CFA) who will ensure adequate community participation and support, and link the communities and village-to-Zoba Government structures regarding HAMSET. The CFA's counterparts will be the Medical Officer, Social Welfare Officer, and Education Officer at the sub-Zoba and Zoba levels. Community facilitators will help implement the component. The project will provide experts to help design implementation procedures and design technical manuals. The manuals will describe the sources, transmission patterns, symptoms, alternatives for treatment, and for care, counseling and cure for HAMSET; they will also specify alternatives for support services from official agencies and NGOs, including NUEW and NUEYS. The project may establish a link with the United Nations Volunteer program for provision of international technical experience combined with social facilitation and participatory planning.

A team comprising staff from the sub-Zoba, a community health worker from the local health facility and the CFA will introduce the project to the selected community and facilitate the community to decide how it wishes to proceed. Key elements of the process include:

- **Introductory meeting**: the team explains the nature of the growing HAMSET threat to the community, in terms of the potential impact on the community and the sources and transmission patterns. Next, the team outlines the nature of the HAMSET Control Program and seeks agreement from the community to participate.

- **Exploratory meeting**: the team presents the menu of alternatives from which the community might select for controlling/mitigating HAMSET, explains how the project will match resources that the community would be willing to contribute (in kind), and helps the community calculate the size of their resource envelope.

- **Discussion and decision meeting:** the team facilitates the community's consideration of the alternatives that they consider appropriate and choice of the combination that they can afford. The team

then helps the community record its decision with the sub-Zoba representative and open its Community-Managed HAMSET Bank Account. The community will then plan the schedule for implementation and the means by which it will monitor progress. To ensure transparency, the community will erect a sign that indicates the purposes of each sub-project, the costs, the contributions of funds from the project and from the community, and the expected completion dates.

· **Evaluation:** At least twice a year and upon completion of sub-projects, the community will prepare a brief report that evaluates the impact of their HAMSET Action Program on their community.

Mechanisms to be considered in the first project year include: (a) various community-designed measures to control and/or reduce the risks of HAMSET within the community; and (b) training for Hamset-related income earning activities that spread benefits within the community. MOLG with the MOH support will be responsible for helping to set appropriate standards, ensure in-service training of community workers, supervision, and provision of learning aids and curative inputs.

The project will finance: a) experts to assist with design of the mechanisms to be tested; b) CFA/UN volunteers to facilitate community discussions and decision making; c) preparation of sub-project proposals; d) learning materials for and training of community change agents members of the village health committee; e) and a Community-Managed HAMSET Action Fund to match contributions from the community. The project would contribute four times the value of in-kind resources contributed by the community, up to a limit of US$ 20 per household over a 3-year period with a limit of 40% to be used in a single year. For example, in a community of 200 households, the community could select a combination of alternatives that would cost US$ 5,000 over 3 years, consisting of US$ 1,000 contributed in kind from the community (most often provided as days of labor) and US$ 4,000 from the Fund. At 2000 wage levels, this would represent about 5 days of labor per family.

Project Component 5 - US$2.72 million

Project Management and Evaluation: This component will support the overall project management. The project will support the creation of a sub-unit within MOH's existing Project Management Unit that will be solely responsible for work planning and budgeting, procurement, and financial management. The project will finance the costs of this sub-unit as well as staff training, workshops, development of appropriate management and information systems to facilitate monitoring of project performance, office equipment and materials, and experts to assist in the implementation of selected activities. The project will also finance annual financial audit of project expenditures, preparation of the mid-term review, and the implementation completion report.

Annex 3: Estimated Project Costs

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

Project Cost By Component	Local US $million	Foreign US $million	Total US $million
A. Collect and analyze information on HAMSET to facilitate evidence-based decision making and rapid response.	2.89	1.95	4.84
B. Multi-sectoral control of HAMSET transmission.	6.19	3.97	10.16
2.1 Promote healthy behaviors through multi-level communication			
2.2 Promote healthy life styles through the education system.			
2.3 Enhance access to preventive, diagnostic, and treatment care for conscripts.			
2.4 Promote environmentally sound cost-effective techniques for malaria vector control.			
C. Strengthen HAMSET diagnostic, health care, and counseling services.	3.45	16.73	20.18
D. Community-managed HAMSET response.	7.74	0.62	8.36
E. Project Management	1.45	1.05	2.50
PPF	0.00	0.40	0.40
Total Baseline Cost	21.72	24.72	46.44
Physical Contingencies	1.12	0.27	1.39
Price Contingencies	1.65	0.52	2.17
Total Project Costs	24.49	25.51	50.00
Total Financing Required	24.49	25.51	50.00

Project Cost By Category	Local US $million	Foreign US $million	Total US $million
Works	2.08	0.89	2.97
Goods	3.81	2.50	6.31
Drugs and HAMSET devices	0.00	15.00	15.00
Special Funds	7.69	0.35	8.04
Consulting Services, Studies and Training	4.55	4.02	8.57
Project supervision and management	1.05	0.45	1.50
Recurrent Costs	2.55	1.10	3.65
PPF		0.40	0.40
Physical Contingencies	1.12	0.27	1.39
Price Contigencies	1.65	0.52	2.17
Total Project Costs	24.50	25.50	50.00
Total Financing Required	24.50	25.50	50.00

Annex 4

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

The Government of Eritrea has proposed a five year integrated project to address Malaria, HIV/AIDS, STDs, and TB. This is a departure from the former practice of addressing these diseases separately using a vertical, medical approach. Another change is the multi-sectoral approach being utilized, with the collaboration in design, planning, and implementation of key sectoral ministries such as education, labor and social welfare, information, and nongovernmental implementing agencies such as the National Union of Eritrean Youth and Students and National Union of Eritrean Women.

This economic analysis of the Eritrea HAMSET will:

1. Examine the links between the proposed project and the IDA's Country Assistance Strategy for Eritrea and other sector work, and assess whether the proposed project has an appropriate sector policy framework;
2. Determine the rationale for public intervention and the IDA's involvement;
3. Estimate the costs and examine the benefits of the project;
4. Ascertain the fiscal impact of the proposed project given available funds and other constraints; and
5. Assess the constraints and risks in the sustainability of the project.

Links to the Country Assistance Strategy

The most recent Country Assistance Strategy for Eritrea (February 5, 1996) focuses on poverty alleviation through sustained growth and investments in human capital. The proposed operation supports this strategy by addressing the major diseases that threaten the well-being and productivity of the Eritrean population. By improving their health status and quality of life, Eritreans will be able to contribute better to the country's development. The project also aims to build local capacity for effective management and implementation of health operations, as well as for health-related activities by other participating ministries and key stakeholders. These actions could contribute to improving access and quality of social services to ultimately improve health outcomes.

Links to Sector Work

This project carefully considers the findings from both related sector work and IDA projects. In particular, it adopts a nation-wide multi-sectoral response to prevent and treat a group of diseases that is responsible for absorbing approximately 80% of the resources of the health facilities in Eritrea.

By controlling HAMSET in a coordinated manner, the project endeavors to take advantage of economies of scale and lower the costs of intervention. It also takes into account the recommendations made by the *HNP Sector Strategy Report* (World Bank 1997a) which underscores the need to respond to HIV/AIDS infections and sexually transmitted diseases (STDs), malaria, and tuberculosis through prevention and treatment policies that have proven to be cost-effective. For example, the early continuous treatment of STDs in a rural community in Tanzania was associated with a 42% reduction in newly acquired HIV infections at a cost of US$ 10 per person treated (Grosskurth et al 1995 from WB AIDS strategy document 1999). In Thailand, prevention efforts at the national and regional levels have led to a rapid and sharp decline in new HIV and sexually transmitted infections, and the number of male STD cases decreased significantly as condom use among sex workers increased. In Uganda, strong high level leadership and effective partnerships with civil society facilitated the changes leading to significant decreases in HIV

prevalence among women attending prenatal clinics in certain regions between 1990-93 and 1994-95. (Wawer et al, 1999).

The HNP Strategy also mentions that malaria control now relies more on a combination of approaches such as treatment combined with insecticide-treated mosquito nets and less on household spraying. In TB control, the Directly Observed Treatment, Short course (DOTS) strategy has proven highly effective in detecting and curing patients and preventing drug resistance in China, India, Peru, and Tanzania.

The costs of prevention are significantly less than the costs of treatment for most of these diseases, especially for HIV/AIDS. Thus the project will emphasize preventive efforts and address the growing threat of HIV/AIDS in Eritrea despite its relatively low reported incidence rate (about 3.2%) in line with the recommendations of the following World Bank strategy documents:

- *Intensifying Action Against HIV/AIDS in Africa. Responding to a Development Crisis* (1999): calls for a timely, national, multi-sectoral response to HIV/AIDS as a central development issue. It recommends a strategic response that include advocacy, prevention efforts targeted to both general and specific audiences and activities to enhance HIV/AIDS treatment and care, together with the expansion of knowledge bases to help countries to design and implement their projects.

- *Confronting AIDS. Public Priorities in a Global Epidemic* (WB 1997b): provides a rationale for government intervention and recommends public emphasis on prevention activities starting with those at highest risk of contracting and spreading HIV and covering as many others based on available resources.

Experiences of some IDA projects including those in Kenya and Uganda suggest that targeting different segments of the population with specific messages has proved effective; and that effective and sustained behavior change can be achieved only where communities assume responsibility for addressing and changing unsafe sexual behaviors and adopting and maintaining safer behavior.

The above documents underscore the importance of integrating HIV/AIDS project with other health-related activities by strengthening the existing systems. In this regard, the HAMSET project not only seeks to improve the management and implementation of HAMSET control through capacity building and better coordination within the health sector, but also aims to strengthen the capacity and coordination of health-related activities across other sectors and ministries such as education, social welfare, and information. It also supports decentralization through institutional strengthening activities across administrative levels, from the center to the community, and encourages the Zobas to implement locally appropriate interventions to improve the health of their respective populations.

Rationale for Public Intervention and Finance

A national multi-sectoral project that: (i) strengthens local capacity to improve health-related social services, and (ii) supports communities and households to access, utilize, and implement some of these services in order to improve the social conditions and the human resources base of the country, requires significant resources. The Government intervention is justified since on the short to medium term, private provision of such services is restricted due to the following reasons:

(1) *High level of poverty.* Despite the 6 to 8% average growth rate from 1993 to 1998 prior to the border conflict, per capita income estimates for Eritrea ranged from US$ 160-190-- among the lowest in Sub-Saharan Africa. Moreover, about 70% of the population is estimated to subsist below the poverty line. Households are constrained from investing in optimal amounts of health care due to their low incomes.

Given that the ability to pay is clearly limited for a significant portion of the population, there is a strong likelihood that private provision of health related services will be under-provided. In the case of Eritrea, the role of the private sector in the management and delivery of health services has been limited with most health facilities being run by the Government, NGOs, and missionaries (WB Poverty Assessment, 1996). The 1997 Eritrea Household Health Status, Utilization and Expenditure Survey (EHHSUES) conducted in the Debub and Gash-Barka zones indicates that the private sector was used as a source of care by fewer than 1% of those ill.

Public interventions can also lessen the adverse impact of income inequities. TB is particularly associated with low income levels (i.e., poverty is a risk factor for this disease). Malaria is endemic in the low lands particularly in less well off regions such as Gash Barka and Anseba. The poor tend to be most adversely affected because they have limited access to health services, information and protective measures, and have less choices to avoid living or working within malaria infected areas. While there is no evidence to suggest that HIV/AIDS infection rates are disproportionately higher among the poor, the poor are least able to bear the significant costs of treatment and the corresponding loss of income resulting from sickness and death. Finally, improving access to and quality of health related social services would contribute to mitigating the direct (treatment) and indirect (loss of productivity and income or schooling, by the sick family member and caregiver) costs of diseases.

(2) *Imperfect information* associated with the nature of health problems, and exacerbated by the generally low level of formal education in Eritrea. For the most part, Eritreans seem to have limited knowledge of preventive HAMSET health measures or social practices that affect health outcomes. For example, low cost preventive measures exist for malaria and yet there seems to be a lack of sufficient awareness and practice of such measures. The utilization rate of impregnated bed nets is still new and very low. There is, therefore, a need to educate the general public especially regarding home-based control methods such as bed nets and environmental management.

The 1995 DHS findings show a general high level of knowledge of HIV and STD particularly among the youth. However, it also indicates that perceived personal risks are low and behavioral change is much lower. Thus, asymmetric information in the case of sexual diseases could also justify the need for adequate public health messages that target modifications of sexual behavior. If people do not have adequate information regarding other's sexual behavior then there may be negative externalities related to increases in activity among individuals who had had multiple sex partners in the past and who have not consistently used condoms. Most important, it is also necessary to provide information about the efficacy of treatments, since the seriously ill, such as those with HIV/AIDS, are often desperate for treatment and may not have easy access to reliable information about which interventions work, which render them especially vulnerable to potentially harmful or ineffective treatments.

(3) *Investments in other sectors.* Aside from investments in information and communication, interventions are also needed in other related sectors which would not necessarily attract private service providers. For example, institutionalizing curriculum on HIV/AIDS/STD in all levels of education, and promoting girls education to reduce their vulnerability and improve their bargaining/negotiating ability with their partners, are actions that will be undertaken mainly in the education sector. Investments are also needed in the labor and human welfare sector if they are to provide adequate social safety nets such as training, counseling, jobs, and additional resources to vulnerable groups.

(4) *Existence of public goods and externalities* associated with the largely preventable communicable diseases that this project addresses. For example, most of the anti-malaria activities (vector control, epidemic surveillance systems, and IEC) are public goods; people cannot be excluded from these services

even if they do not pay for them. Other anti-malaria interventions such as impregnated bed nets are private goods that have positive externalities. With regard to STDs, Kremer (1999) argues that the social benefits obtained from prevention such as ensuring a safe blood supply or using condoms are likely to be substantially greater than their private benefits. Therefore, it is highly probable that private markets will underprovide these goods and services, which justify government intervention.

Given the above reasons, essential health-related services, both preventive and curative are not accessible and utilized by those who need them most. Preventive services tend to be under-provided by the private sector. Given the importance of such services in Eritrea, there is a clear rationale for government and other nonprofit providers to intervene in the social sectors to ensure adequate provision of health-related services. Government intervention could be through either direct provision or financial subsidies to private providers.

Rationale for IDA Involvement

IDA was requested to provide approximately 80.0% of total project funds. Without IDA's involvement, available local resources can only finance about 20% of the proposed project, thereby allowing for significantly less coverage and a slower pace of implementation. This could have both access and quality implications given the combined adverse impact of HAMSET on the Eritrean population. While taking some action is better than not taking any, the costs of inadequate action are still extremely high because without the proposed project, the majority of the Eritrean population will remain at risk.

IDA funds will thus, contribute to substantially increase the coverage and speed of implementation of interventions that control a set of diseases to which a large share of DLYs (discounted life years lost due to premature deaths) is currently attributed, which affects mainly the productive age group. Only minimal information is currently available on DALYs (disability adjusted life years) in Eritrea.

Aside from improving access and quality of services via supply-side interventions, IDA resources will support important baseline surveys and economic and sector work that will provide further insights into households' health knowledge, attitudes, practices, and constraints that could improve the design and delivery of future interventions, and increase their effectiveness from a demand-side perspective. This is particularly important given the lack of up-to-date nationally representative information on and analysis of the Eritrean situation.

The IDA will also contribute to the ongoing dialogue with the Government and other external partners in order to obtain and coordinate the technical and financial support necessary for HAMSET control. In partnership with the Government and other external partners, IDA funds are also being used to finance the preparation of the Health Sector Note which will map a more comprehensive, long-term strategic vision for the health sector.

Adequacy of the Sector Policy Framework

HAMSET is based on the government's overall Macro Policy which seeks to eradicate poverty and foster economic growth through national policies on human resources development and food security.

The Eritrean policy on health supports this objective through activities that aim to: a) minimize and eventually eliminate easily controlled diseases; and b) enhance awareness of good health practices in order to improve the productivity of the workforce. Supporting policies are as follows:

- ensure the equitable distribution of health and social services to rural and urban areas, support primary health care and immunization projects; and improve and expand mother and child-care services;
- give special attention to major health hazards and promote health services;
- encourage the private sector to actively participate in the provision of health services following rules and regulations and operational modalities provided by MOH;
- Promote community and beneficiary contribution in financing health services;
- introduce national health insurance schemes;
- actively promote information dissemination on health practices. (Tseggaai, 1998)

The Eritrean policy on education seeks to also develop self-consciousness and self-motivation among the population in order to fight poverty and disease. With respect to psycho-social projects to support children and adults in need of special protection, current state policy regarding human welfare acknowledges the necessity of empowering vulnerable groups to enable them to become productive members of society. In full recognition of the impact of good nutrition on human physical and mental development, the Eritrean policy on food security places emphasis on the modernization of the existing infrastructure and technology in agriculture, fisheries and other sectors of the national economy to maximize food production, together with improved dissemination of sound nutrition practices.

While there is still no sector-wide approach established in the health sector in Eritrea, a dialogue towards this objective has been initiated with the Government during the implementation of the ongoing Health Project and during the HAMSET project preparation. A policy framework is expected to evolve based on further discussions with key stakeholders within the Ministry of Health and across sectors and administrative levels, and external partners, based on the findings of the Health Sector Note that is being prepared by both local and foreign consultants.

Eritrea is highly committed to halt the transmission of Malaria and HIV/AIDS and the Government had originally prepared separate five-year plans to tackle both diseases. These plans seemed highly ambitious relative to the existing human resource capacity in the country. The HIV/AIDS control plan is designed along strategic lines, it includes intersectoral activities and generally has the correct emphasis on the different strategies and activities. However, the country's situation analysis needs updating. This plan has not been implemented due to the lack of resources. The Malaria control plan is designed along epidemiological objectives rather than along functional or strategic lines. The potential role of other sectors is highlighted, but nearly 100% of the activities are carried out by MOH staff and in great part, directly by the Malaria Control Program (MCP) staff. However, discussions during the March, 2000 mission resulted in Government's decision to integrate both plans. Moreover, efforts have been made since then to coordinate key interventions along intra-sectoral and intersectoral lines, incorporating related diseases such as STDs and TB.

The overall objective of the HAMSET project is to reduce the mortality and morbidity of the Eritrean population due to HAMSET by increasing the number of people that employs healthy practices and uses quality, effective, and efficient health services for HAMSET.

Through the following five specific components, the project emphasizes preventive level interventions and early treatment — approaches that are considered cost-effective. Priority is also given to the development

of human resources, health information systems and the process of monitoring and evaluation that encourages participation of various stakeholders.

1. Collect and analyze information on HAMSET to facilitate evidence-based decision making and rapid response.
2. Multi-sectoral control of HAMSET Transmission.
3. Strengthen HAMSET diagnostic, health care, and counseling services.
4. Pilot Community-Managed HAMSET response.
5. Project Management and Evaluation.

Over-all Project Design: Analysis of Alternatives

Two separate projects (HIV/AIDS/STDs and Malaria) were originally envisioned by the Government. After deliberation and subsequent discussions among key local stakeholders and the IDA, the Government has chosen to combine both projects into an integrated project that also deals with STDs and other opportunistic diseases such as tuberculosis, these diseases combined, impose a heavy disease burden and utilize up to approximately 80% of available health facilities in Eritrea. This choice is based on the following reasons: First, economies of scale could be achieved by preparing one project rather than two and by taking advantage of the synergistic effect of addressing a set of diseases through an integrated approach. For example, the design and delivery of health related information messages could be better coordinated and the training of health workers could be combined whenever appropriate, leading to a a more holistic approach rather than being oriented towards a specific disease. Second, disease specific projects tend to have a poor track record, especially if implemented simultaneously. These projects (i.e. vertical projects) can create an unnecessary burden on the Government's capacity to manage and implement and may confuse communities through disconnected health messages.

The possibility of including other health issues was also considered. Malnutrition and mother and child mortality and morbidity (including Malaria) impose 70% of the burden of disease in the country and are high in the list of priorities of both the IDA and the Government. However, an IDA-financed Early Childhood Development project which addresses health and nutrition issues for young children and mothers has already been launched. The Government and the IDA team decided to complement those efforts by focusing mainly on the productive work-force (not covered by any other project) and to ensure coordination and integration with the ECD project in terms of activities related to school health.

Ultimately, a sector-wide approach would have been optimal in order to address all health issues. The Government has recently agreed to prepare a Health Sector Note which will provide a more comprehensive and long term strategic vision for the health sector. However, this Note will not be drafted in time to coincide with HAMSET project preparation. Nonetheless, this project will: a) address an important set of diseases in an integrated fashion which could serve as an example for further integration of activities within the health sector and across other sectors; and b) increase efficiency in the use of health workers at Zoba, sub-Zoba and village level, now working on vertical projects, which could enhance the sustainability of interventions by reducing the total number of workers needed to carry-out activities in the vertical approach.
The diseases addressed by this project are multi-sectoral in origin as they result from an interaction of factors across several sectors. Discrete, uncoordinated interventions have proven to be generally ineffective. A national response must therefore address the various factors that contribute to the spread and severity of these diseases in a more integrated, holistic manner. Accordingly, this project will support project planning and implementation arrangements that coordinate activities across a number of sectors, including regular consultations and participation of key stakeholders. The focus will be on an integrated

approach to dealing with HIV/AIDS, Malaria, STDs and TB that could provide a service delivery model that could be used in the future for other public health and development issues.

4. Financial Analysis.

The total cost of the five-year project is US$ 50-million, with IDA's contribution at approximately US$ 40.0-million (80%), the government's share is at least US$ 8.34 million (16.7%) and community contribution is around US$ 1.66 million (3.3%). At this time, the contributions of other donors have not been factored in the project costs.

Table 4.1 Financing of HAMSET by Source, 2001-2006

Financing Source	Amount (in US$ M)	Percent of Total Cost
Government	8.34	16.7
Communities	1.66	3.3
IDA	40.0	80.0
Total (including contingencies)	**50.00**	**100.0**

Source: Hamset Team budget estimates, September 2000 mission

Civil works represent only a relatively small fraction of the total budget at about 6.8%, focusing more on rehabilitating health facilities rather than constructing new ones.

As a whole, the project supports proven, *cost-effective* interventions (prevention and early treatment), while allowing for piloting of innovative activities especially community-managed response mechanisms. Project allocation reflects this approach with a significant portion of the budget focusing on prevention interventions of which about 24% is allocated to promotion of behavior change. In addition, approximately 36.0% of total project costs will be devoted to training, technical assistance, and special funds to involve stakeholders, especially communities (the community managed fund alone represents about 16.5% of total project costs).

The over-all allocation of expenditures across categories is reasonable, reflecting a concern for improving access and quality of HAMSET control interventions. In addition, the yearly *phasing* of expenditures has improved because of discussions between the participating ministries, agencies, and IDA.

Table 4.2: HAMSET Budget, (thousand US$)

	Investment	Recurrent	Total
Year 1 (2000/01)	9,405.9	301.7	9,707.6
Year 2 (2001/02)	9,969.7	672.0	10,641.7

Year 3 (2002/03)	10,082.9	1,017.9	11,100.8
Year 4 (2003/04)	8,967.7	972.7	9,940.3
Year 5 (2004/04)	7,610.9	998.7	8,609.5
Total with contingency	**46,037.0**	**3,639.4**	**50,000**

Source: HAMSET team budget estimates during September 2000 mission

After the September 2000 mission, the budget share of the first year declined from 25% to 19%. Despite this improvement, it might still be useful to review the first year activities to see if some could be moved to the succeeding years due to possible implementation and absorptive capacity constraints. A study (Tekie, 2000) commissioned by the IDA shows that the total expenditures for HAMSET-related activities for 2.5 years (from 1998 until the first half of 2000) was only about ERN 67.26 million or approximately US$ 7.47 million at most. Thus, unless there are substantial underestimates in the figures obtained from MOH and MOF for 1998-2000, the first year proposed spending for the HAMSET project alone is almost five times the yearly average spending for HAMSET-related activities in 1998, 1999, and 2000 (assuming that expenditures for the 2nd half of 2000 are the same as the first half's expenditures).

Table 4.3 Summary of Expenditure from all Sources for HAMSET-related activities (1998 to first half of 2000, in thousand Nakfa)

Disease	1998	1999	2000 (1st half)	Total
Malaria	7,438.5	14,322.4	17,927.3	39,688.4
HIV/AIDS	5,116. 4	3,773.1	451	9,340.8
STD	7,436.5	6,202.3	688.29	14,327.2
TB	1,929.0	1,807.4	176.1	3,912.5
Total	**21,920.6**	**26,105.3**	**19,242.9**	**67,268.9**

Source: Tekie, 2000.

Given the above observed expenditure patterns, as well as the limited implementation and absorptive capacity of the sectors involved, mainly the impact of the Border conflict on Eritrea' human resources, it may be difficult to disburse this amount during the initial one or two years of the project. This issue was discussed during the September mission and the Government responded by stating that the above expenditure patterns are due to local financial resource constraints rather than implementation constraints. Nonetheless, as a precautionary planning measure, another reassessment of phasing of activities in relation to the ability of the ministries, Zobas and sub-Zobas to implement the project was suggested by the September mission. A more gradual build-up of capital/investment expenditures is being recommended taking into account progress made in capacity building efforts over time. This issue was also discussed

during the project decision meeting and the general consensus was that the risk of frontloading does not seem significant because of the good track record of the PMU, the quality of the project implementation manual, and the first year implementation plan which was discussed and refined during negotiations.

A significant portion of project costs (80%) are expected to be covered by IDA. The Government will increasingly take over the financing of incremental recurrent costs aside from the agreed percentage of PMU-related expenses during the course of the project with the expectation that cost recovery efforts through charging of user fees will cover some of the program costs. These fees are mainly nominal amounts for curative services although in the context of HAMSET, it is important to note that patients with TB, STDs, and HIV/AIDs are given services free of charge, thereby emphasizing the importance of preventing these diseases (Forsberg, 2000). Communities are also expected to contribute to financing and managing some of the interventions such as home and community-based care to assist families affected by HIV/AIDs and TB and support to HIV/AIDS orphans. Eritrea has a well-established history of community involvement in self-help activities. Nonetheless, it was also discussed during the September mission that given the extent of poverty in the country, and the repercussions of the border conflict between Eritrea and Ethiopia, that it would neither be realistic nor desirable in the short to medium term to expect communities to significantly contribute to recurrent costs/cost recovery efforts for HAMSET activities. Other studies underscore this point about most households' limited ability to pay.

According to Donaldson (2000), the Eritrea Household Health Status, Utilization, and Expenditure Survey (EHHSUES 1997) inquired about the amount that households paid for medical care associated with their illness. Table 4.4 provides information about the percentage of households that paid an amount for different aspects of care by level of expenditure. However, the draft EHHSUES report did not indicate the total amount paid by households for all treatments/inputs used for the illness reported. The results suggest, however, that the majority of the population pay little for treatment aside from a registration fee and perhaps a payment less than Nakfa 50 for drugs (the report does not provide a separate expenditure category for drugs).

Table 4.4: Percent of Households Reporting an Illness who made Various Levels of Payment by Type of Expenditure, 1997

	Percent of People Paying					
Amount (Nakfa)	**Registration**	**Drugs**	**X-ray**	**Room**	**Transport**	**Other**
0	35%	53%	95%	96%	86%	95%
1-50	34%	43%	6%	3%	13%	4%
51-100	22%	3%	0.2%	0.4%	1%	0.4%
101+	9%	2%		0.4%	0.2%	0.8%

Source: EHHSUES (1997)

The study by Weaver (1997) re-analyzed some of the EHHSUES data to estimate the proportion of household income that was spent for health. Table 4.5 summarizes the findings. The figures shown indicate that the households who utilize a health facility have, on average, a higher income (as measured by consumption), and that these households have lower average expenditures for health. On average, households spent about 4% of their consumption on health. Experience worldwide, has shown that poor households spend from 3 to 5% of their consumption for health (Donaldson, 2000). This would imply that the scope for increasing health fees would be restricted to the higher income households in Eritrea.

Table 4.5: Estimated Household Consumption and Health Expenditures among Total Sample Households and among Households utilizing Health Facilities (in Nakfa), 1997

	Health Facility in Town or Village	No Health Facility in Town or Village	Total Sample
All Households(HH)			
Consumption/Month	562.6	377.5	427.4
Health Expenditures/Month	11.25	15.10	17.10
% of Consumption	2%	4%	4%
Households Using Health Facility			
HH Consumption/Month	624.2	399.3	456.7
Health Expenditures /Month)	37.45	39.93	41.10
% of Consumption	6%	10%	9%

Source: Weaver (1997)

In light of these points, it is realistic to expect that the Government would have to commit to financing a significant amount of the funding gap from the sixth year onwards of the project in order to sustain HAMSET activities.

The recurrent cost requirements for the fifth year of the project is estimated at about US$ 4.90 million (drugs, bednets, and condoms comprise about 76% of these costs) and only US$ 1.0 million if we classify drugs, bednets, and condoms as investment and not recurrent costs. If we classify drugs, bednets and condoms as recurrent costs then a minimum of US$ 6.10 million would be needed to finance recurrent costs for the year after the project (less than 1% of the 1999 budget for health). This estimate assumes that some training activities/refresher courses will still be held to maintain the level of staff quality and that drugs, bednets, and condoms will be financed mostly by the GOE. Recurrent cost requirements after the project's 5th year seem affordable given its marginal impact on the Government's health budget (it represents less than 1 % of the health budget for 1999) and also because these costs will be spread across the participating ministries/sectors. On the other hand, expenditure and financing patterns from 1998 until the first half of 2000 have shown that about 80 % of HAMSET-related activities have been funded by external partners and that the Government's share has been primarily allocated to salaries and to a smaller extent, materials and supplies (Tekie, 2000). Thus, continued reliance on external financing might be expected in the short to medium term unless HAMSET activities are programmed into the regular budget of the Government. *During negotiations the IDA and GOE agreed on a plan indicating how incremental recurrent costs will be covered after project implementation.* It will also be important for the GOE to have a medium to longer term plan to ensure the sustainability of HAMSET control program activities especially in the event of a shortfall in external financing and/or unsuccessful cease-fire negotiations with Ethiopia. Strategies to ensure program sustainability will be one of the important areas to focus on in the preparation of the health sector review.

The September appraisal mission also emphasized that more effort is needed to ensure that *other external*

partners' contributions to HAMSET control activities are incorporated in the GOE's program planning and budgeting. Thus, it is essential to ensure that unless necessary, the future IDA credit will not be used for activities that other donors are already currently funding or have agreed to finance especially, if these are on a grant basis. A *revised budget and* narrative that maps out sources of financing and provides a rationale for requested financing were discussed during negotiations.

Benefit/Impact Analysis

The main considerations regarding the allocation of resources under the HAMSET project that are relevant to assessing its benefit/impact are the following:

First, the project will be *nationwide in scope* reaching about 3.5 million Eritreans. Some interventions are expected to cover about 80 % of the population while some other activities will cover specific primary target groups. Secondary target groups of the project are health personnel, teachers, and social workers.

Second, by addressing a set of diseases together instead of separately, *economies of scale* could be achieved by preparing one project rather than individual disease-control projects. For example, the design and delivery of health related information messages could be better coordinated and the training of health workers could be combined whenever appropriate and, therefore, have a more holistic approach rather than being oriented towards a specific disease. Certain common activities could also be coordinated or combined in order to minimize project costs including: purchases of drugs and equipment, training activities of health workers, IEC messages, and surveys whenever appropriate. The use of parallel systems could be minimized. For example, support will be given to building on the existing health information system (SEMISH) instead of having multiple management information systems for the participating ministries and departments. All these actions have resulted in reducing total project costs by about 54 % from about US$ 109 million from the original GOE proposals in January-March to about US$ 50 million during the September 2000 mission.

Third, aside from reducing project cost preparation and implementation, it is also cost-effective to take advantage of the *synergistic effect of addressing a set of diseases* through an integrated approach. In particular, research findings from a recent study from Uganda has shown that there is a *clear link between uncomplicated malaria and HIV-infection in adult*, i.e. that HIV-infected persons may have an increased amount of gametocytemia (malaria parasites) that could amplify the transmission of malaria (French and Gilks, 2000). There are several other reports (Hoffman et al., 1999; Parise et al., 1998; Steketee et al., 1996; and Verhoff et al., 1999) that have shown interactions between HIV and malaria in Africa, with the best documented interaction established in pregnant women; pregnant women are HIV infected develop more frequent and more dense parasites than do HIV-uninfected women. Malaria may also have an effect on HIV infections in non- pregnant adults; a recent study in Malawi found that malaria-infected adults have 7-fold higher HIV-viral loads than malaria-free adults. In addition, certain STDs strongly increases HIV transmission. Moreover, TB is the most frequent opportunistic infection in HIV positive individuals in Sub-Saharan Africa.

Fourth, *the project addresses a set of diseases to which a large share DLYs (discounted life years lost due to premature deaths) can be attributed to* (only limited information based on DALYs is available in Eritrea). Malaria alone accounts for 31% of all out patients and 28.4% of all patients admitted in health facilities. Aside from direct costs from treatment, productivity losses are also substantial; it is estimated that an average malaria episode lasts from 7-12 days. Malaria is also the number one cause of death in adults and the third most common cause of death in children (below 5 years). Over 10% of all annual

deaths are due to malaria.

A cost-benefit analysis of the malaria interventions of the HAMSET project (Scheuermaier 2000) concludes that these interventions seem cost effective given that their present value is US$ 22 million relative to the cost to Eritrea of controlling the disease which is only US$ 5.4 million. The detailed analysis of the economic costs of malaria in Eritrea using the Human Capital Method (taking into account the private and non-private medical costs associated with the illness, as well as foregone productivity from morbidity and mortality although measures of pain and suffering were excluded; assumptions are clearly outlined in the document which is available in the project files) yielded the following results: the total direct and indirect cost of malaria is equivalent to 3.4% of the GDP in 2000, direct costs accounting for about 56%. On an individual level, direct costs were US$ 3.0 per Eritrean while losses resulting from morbidity and mortality (indirect costs) were US$ 2.4, amounting to a total annual per capita cost of US$ 5.4. Total costs per household was US$ 32. The results are in line with other studies such as Sheppard (1991) which derived estimates of the cost of malaria for sub-Saharan Africa, using case studies in four different African countries. According to this study, total direct and indirect costs of malaria in 1987 were approximately US$ 2.3 (US$ 3.4 in 2000 terms) per capita for the region, and double that in rural areas (US$ 6.8 in rural areas).

The above direct productivity and treatment loss due to malaria does not take into account the loss due to absenteeism. For the education sector in Africa, malaria is of substantial importance because it is responsible for 3-8% of all cause absenteeism, and up to 50% of readily preventable absenteeism. Thus, prevention of early malaria may be important to the educational achievement of children (Snow, 1999).

Aside from malaria, STD cases are increasing and at least 3.2% of the adult population is estimated to suffer from HIV/AIDS, the number of cases is doubling each year. AIDS tends to be associated with other infections such as TB, is 99% fatal, and tends to strike the most productive age group in a population thereby causing severe personal loss, disruption of social structures (for example, loss of one or two parents in a household), and worsening poverty. Given that these diseases are due to largely preventable causes, HAMSET's focus on prevention and early treatment is well-directed and cost-effective.

Fifth, HAMSET aims to *increase the population's access to and knowledge of prevention measures and basic early treatment for HAMSET.* The project budget is devoted to strengthening the quality of and improving access to HAMSET health care services and at least 29% of the budget is allocated to introducing mechanisms to minimize HAMSET transmission. In general, *early prevention* is important for all diseases because prevention costs tend to be less than curative costs. Prevention is particularly crucial with regard to HIV/AIDS because transmission prevention costs between US$ 20 to US$ 100 per case --significantly lower than treatment costs which can reach hundreds of thousands of dollars, aside from the personal and indirect losses incurred by families (WB 1997).

Table 4.6 outlines the results of a burden of disease, cost effectiveness study (for 10 disease groups which were estimated to account for 59% of total deaths and 73% of discounted years of life lost in Eritrea (Sebhatu et al., 1994).

Table 4:6 Cost-Effectiveness of Disease Interventions (Nafka/Discounted Life Year Saved)

	Community	Preventive	Curative
Malaria	**753**	**1,438**	**67**
ARI	19	113	31
Perinatal/Maternal	11	105	8
Nutritional Deficiency	11	203	415
Diarrhea	11	84	124
Cardiovascular	NA	1,501	6,901
AIDS/STDs	**2,605**	**165**	**7,436**
Immunizable Disease	11	5	29
Tuberculosis	**11**	**18**	**153**
Injury/Trauma	NA	NA	50
All Other Disease	655	203	2,644

Source: Sebhatu et al., 1994

Prevention is clearly a more cost effective approach in Eritrea where the HIV/AIDs epidemic is at a relatively early stage, concentrated in certain geographical and socio-economic groups and where the Government is acting relatively early to reduce the number of high risk transmissions and secondary infections. In other words, promoting safer sexual practices will also reduce the spread of other debilitating and costly sexually transmitted infections such as syphilis and gonorrhea. Reducing the incidence of AIDS is likely to also reduce the incidence of TB. While widespread IEC will take place, most resources are being allocated to target mainly high risk transmitters. In terms of treatment, emphasis is being placed on cost effective palliative care.

On the other hand while malaria interventions included in the original GOE proposal have been proven to be effective, *more analysis would need to be undertaken to produce a set of appropriate cost-effective interventions* suited specifically for Eritrea's local characteristics. Thus it was suggested and agreed during the March and September missions that the focus of malaria interventions will need to emphasize improving vector control so that it becomes environmentally sound and more cost-effective by stratifying vector control activities based on the results of operational research, piloting the use of alternative community-based vector control activities and insecticides with the same efficacy but lower toxicity and environmental impact than DDT. Short term technical assistance for stratification of country and GIS will be financed by USAID while the IDA credit will finance operational costs of efficacy and cost-effectiveness studies, alternative insecticides, and community-based alternative vector control pilot activities.

Sixth, by *strengthening coordination within the Ministry of Health and through establishing and improving partnerships with other ministries and stakeholders*, the project seeks to mitigate both the health and socio-economic impact of HAMSET in a more holistic, broad-based manner. For example, actions to improve the status of women such as promoting girls' participation in schools could help enhance women's knowledge and negotiating/bargaining power with their sexual partners in order to protect themselves from harmful sexual practices. The project will also support social safety nets that help reduce the vulnerability of poor households including employment generating projects and piloting of an affordable, home-based system for care and referral for HAMSET patients. This home-based system could include provision of supplemental labor, food supplements, clothing school fees, healthcare expenses, as appropriate, to patients following treatment for TB or to families with a member sick with AIDS. A number of pilot initiatives will be carried-out in different settings (urban/rural) and Zobas in order to get test what works given different circumstances. These pilot initiatives will be closely followed by community social workers identified by the community.

Finally, HAMSET aims to contribute to improved health outcomes through reduced morbidity and mortality rates, which from an investment in human capital perspective will significantly increase the over-all welfare and productivity of Eritreans. By investing in interventions that have public good properties, that reduce the spread of diseases such as HIVAIDS/STDs, TB and malaria, the negative externalities involved with contracting the disease (poor health, low productivity, and burden on household members who have to care for the sick member) will also be reduced. Assuming that new outpatient contacts increase by even half of the goal of 30% (15%) within the five year period as a result of increased access to effective services, additional episodes of illness per year would be dealt with, with concomitant improvements in both health and economic benefits. If it is able to achieve its main objectives then HAMSET will: (a) increase the number of patients seeking early treatment for STDs, TB, and malaria by 30%; (b) increase both the number of condoms sold and use of bed nets in selected areas by 30%; (c) reduce the incidence of HIV among army conscripts, blood donors, pregnant women by 20% from 2001 to 2010; (d) reduce the number of labor days lost to malaria reduced by 50%; i.e. from 7-12 days to about 3.5-6 days, and (e) improve the ability of key stakeholders especially communities to manage, implement, and sustain the HAMSET mitigation and assessment activities.

Sensitivity Analysis

The *sensitivity analysis* undertaken by Scheuermaier (2000) on HAMSET's malaria interventions yielded the following results (table 4.7):

- *Variation in the project's malaria intervention cost:* The project remains cost-effective, even if the cost of the World Bank intervention increases by up to 50%. The project will cease to be cost-effective when costs increase by more than 101.8 %.

- *Variation in the project benefits:* the cost-effectiveness of the project diminishes relatively rapidly, when project benefits decrease. If benefits fall by more than 50.4 %, the project ceases to be cost-effective.

- *Variation in the cost of malaria:* when the lower and upper cost estimates from previous malaria studies are used, as opposed to the average of the two, there is a wide variation in the cost of malaria, from US$ 11.2m, equivalent to 1.7% of GDP, to US$ 32.7m, equivalent to 5% of GDP (these numbers match existing estimates of the cost of malaria, which range from 1% to 5% of GDP). In the low malaria cost scenario, the CER falls to 0.77 compared to 0.37 in the high malaria cost scenario.

- *Higher income growth:* the paper assumes a constant real growth rate in income of only 2% reflecting the stagnating real income levels in Eritrea over the last 50 years. Should economic growth in Eritrea gain momentum, the project becomes even more cost-effective. Assuming (unlikely) East-Asian real growth rates of 8% per head, the cost of malaria rises to US$ 51.1m, equivalent to 7.8% of GDP, owing mainly to the higher value of future productive losses. Under this scenario, the CER of the project increases to 0.20.

Table 4.7 Sensitivity Analysis for HAMSET Malaria Interventions

Variable	Cost Of Illness (000)	Total Cost Effectiveness Ratio
Present (base scenario)	21,960	0.50
+50% in malaria cost	21,960	0.74
-50% in project benefits	21,960	0.99
High malaria cost	32,706	0.37
High income growth	51,066	0.20

Source: Scheuermaier (2000)

Risk Analysis

Low Demand for Services and Lag in Quality Improvements

The Eritrea Poverty Assessment Report (WB, 1996) estimates that the average attendance at health facilities is low at around 0.7 to 0.8 and 7-8 per person per year relative to other countries in Sub-Saharan Africa and more affluent countries, respectively. Low utilization of services might continue or only improve marginally in spite of increased access to health facilities. In addition, quality improvements such as training sufficient staff and making sure that facilities are well stocked with drugs and equipment might also not be attained in the envisaged pace or time. HAMSET will try to address low demand through improved IEC or strategic communications for behavioral change based on Knowledge, Attitudes, Practices (KAP) surveys that will be undertaken during the first year of the project. Quality improvements will also be closely monitored and quality indicators such as availability of drugs and trained staff are being incorporated in the monitoring and evaluation system.

Institutional Capacity and Phasing of Project Activities

As a result of the border conflict, there might be weak institutional capacity to implement the project especially at the Zoba and sub-Zoba levels. Discussions during the September mission resulted in an improvement in phasing of activities so that the project implementation is not too front-loaded (share of first year expenditures out of total project costs declined from 25% to 19%). The mission requested the GOE to further assess whether additional improvements can be made in phasing of activities for the first 2 years of the project. The GOE was also asked to identify any resource gaps and institutional constraints that could potentially hinder proper project implementation and reach agreements on how these can be adequately addressed. These were important issues discussed during negotiations.

Coordination Across sectors

This project is the first time that the Government will be pursuing an integrated, multi-sectoral approach that will be coordinated mainly by the health sector. Thus strong and supportive mechanisms for inter-sectoral coordination would need to be established and maintained on a regular basis to make sure that HAMSET activities are well-linked in order to take advantage of any economies of scale and to deliver a holistic package of health-related services while using different means/channels of delivery (e.g. health workers in health facilities, teachers in schools, agricultural extension workers, social workers, as well as youth and women's groups). Detailed implementation arrangements are being worked out in order to establish mechanisms for regular communication across sectors; regular videoconference meetings have been arranged between the project implementation manual drafting committee and the IDA project team. The revised project implementation manual which maps out the project implementation arrangements was an essential topic of discussion during negotiations.

Sustainability

The estimated minimum share of recurrent expenditures required to continue with HAMSET activities during the sixth year represents only a small share (less than 1%) of the 1999 Government budget for health. The budgetary demand on MOH could even be less because costs could be spread across other participating ministries such as MOE. It must be emphasized, however, that this estimate is conservative and only covers ongoing HAMSET activities -- expansion or scaling up costs have not been accounted for. Additional resources to finance both capital and recurrent costs would be needed should the project be scaled up, demand increase for certain services/activities, and pilot activities be replicated in other areas. This issue becomes even more critical after a review of HAMSET-related expenditures from 1998-2000 (first half) which showed that about 80% of total expenditures for the 2.5 years have been funded by external partners. Thus it is possible that reliance on external financing of HAMSET activities might be a more realistic expectation during the short-to medium term although the Ministry of Finance has already indicated during the September mission that it is ready to increase the budget for activities related to HAMSET control. *During negotiations, the IDA and GOE agreed on a plan indicating how incremental recurrent costs will be covered after the project implementation period.* It will also be important to have a medium to longer term plan to ensure the sustainability of program activities *especially in the event of an unexpected shortfall in external financing and/or unsuccessful ceasefire negotiations with Ethiopia.* This could be an important area of consideration in the preparation of the health sector note.

The September mission also emphasized that more effort is needed to ensure that *other external partners' contributions to HAMSET control activities* are incorporated in the GOE's program planning and budgeting. A revised budget and narrative that maps out sources of financing and provides a rationale for requested financing were discussed during negotiations.

Annex 5: Financial Summary

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

Years Ending

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required							
Project Costs							
Investment Costs	9.4	9.9	10.1	8.9	7.6	0.0	0.0
Recurrent Costs	0.3	0.7	1.0	1.0	0.9	0.9	0.9
Total Project Costs	9.7	10.6	11.1	9.9	8.5	0.9	0.9
Total Financing	9.7	10.6	11.1	9.9	8.5	0.9	0.9
Financing							
IBRD/IDA	8.2	9.1	8.7	7.5	6.4	0.0	0.0
Government							
Central	1.4	1.5	2.0	1.8	1.7	0.9	0.9
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.1	0.1	0.4	0.6	0.5	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Financing	8.3	9.2	9.1	8.1	6.9	0.0	0.0

Main assumptions:

Annex 6: Procurement and Disbursement Arrangements
ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

Procurement

Procurement for all IDA-financed activities will be carried out in accordance with the World Bank's Guidelines for Procurement under IBRD Loans and IDA Credits (January 1995, revised in January and August 1996, September 1997, and January 1999). Consulting services by firms or individuals financed by IDA will be awarded in accordance with the World Bank's Guidelines: Selection and Employment of Consultants by World Bank Borrowers (January 1997, revised in September 1997).

Procurement management

Procurement under the project will be carried by the Project Management Unit (PMU) under the Ministry of Health on behalf of the participating agencies (PAs), which include the Ministry of Health, Ministry of Education, Ministry of Agriculture, Ministry of Defense (Medical Services), Ministry of Human Welfare, Ministry of Local Government, Ministry of Information, Ministry of Transport and Communications and relevant NGOs (NUEW, NUEYS, Confederation of Eritrean Workers). The rationale for centralized procurement is that MOH-PMU has gained sufficient experience under the present IDA-financed Health Project to provide coordination with other Ministries and carry out procurement on their behalf efficiently. The PMU has been assessed by the mission as procurement-capable under LACI requirements and includes two experienced staff (a civil engineer and a procurement officer) that have taken advanced procurement courses at ILO (procurement of civil works) and Mombasa (procurement of goods). The additional procurement staff will also take these courses.

The PMU will carry out procurement based on the following arrangements:

- A pre-determined annual budget will be established for each of the PAs based on their requirements. The PAs will draft a precise list of procurement requirements, establish priorities, and furnish to the PMU the quantities, technical specifications, and TORs for consulting services/training. Based on these requirements, the PMU will carry out procurement based on an agreed procurement schedule acceptable to the Association.

- Emergency and other urgent purchases/TA will be carried out by PMU through specific, fast track, procurement actions (direct purchase; shopping; LIB; IAPSO, etc., to be specified in the DCA and manual of procedures).

- Minor procurement actions (shopping; individual, short term, consulting services) at local level will be carried out by the PAs through specific arrangements stated in the manual of procedures and agreed during appraisal with the PMU.

- Large purchases will be carried out by the PMU under ICB on behalf of all PAs. Individual requirements, however, will be delivered to each PA following arrangements specified in the manual of procedures and/or bid documents. PAs will have the option to (i) collect their requirements at a principal warehouse in Asmara or Massawa; (ii) have their requirements delivered at specified storage in Asmara or provincial centers; or (iii) sub-contract transport with the private sector for delivery anywhere in the country.

- Advance procurement will be carried out wherever possible to allow for disbursement for goods and services immediately after effectiveness date. Advertisement for the contracts (both goods and consulting services) will be published in the Development Business as GPNs immediately after project appraisal.

The project appears complex owing to the number of ministries involved, yet it has a good probability of being implemented in a satisfactory way because of the following reasons:

- Adequate coordination and management structure, leaving to the individual ministries the full responsibility for the implementation of their respective sub-components;
- Good coordination skills by the lead agency (MOH) with previous satisfactory performance under the ongoing IDA financed project adding to a strong commitment by all participating agencies; and
- Satisfactory staffing at central level for the lead executing agencies such as MOLG, MOH, MOF and MOE.

Procurement risk rating, supervision and planning

The procurement risk rating for this project is low. The procurement implementing agency of this project, the PMU has implemented an IDA-assisted project (Eritrea Health), which has a very good track record in procurement management. Procurement supervision will be undertaken every six months during the implementation of the project.

A procurement assessment of the implementing agency was carried out by IDA, and procurement plans and actions were agreed at appraisal with the implementing agency.

Procurement methods (Table A)

Civil works, equipment, vehicles, supplies as well as drugs will be bulked to the extent possible and procured as follows:

- Individual contracts for the purchase of goods estimated to exceed US$ 100,000 and US$ 200,000 (only for furniture available locally) equivalent will be procured by International Competitive Bidding (ICB) using the IDA's appropriate standard bidding documents.
- Individual contracts for the purchase of goods with an estimated value above US$ 30,000 equivalent, up to an aggregate amount not exceeding US$1,000,000 will be procured under National Competitive Bidding (NCB) following procedures acceptable to the IDA.
- Individual contracts for goods estimated to cost less than US$ 30,000 will be procured through national shopping up to an aggregate amount not exceeding US$ 3,000,000 by comparing at least three price quotations from qualified suppliers.

IAPSO may be used for the purchase of a limited number of vehicles and units of office equipment needed at the start of the project.

Civil works

Due to the relatively small volume and size of construction works, and their geographical dispersion, civil works under the project are unlikely to attract international competition, apart from foreign contractors already located in Eritrea who will be allowed to bid. Individual contracts are expected to cost less than US$ 100,000 and will be procured through NCB procedures up to an aggregate amount

of about US$ 5 million equivalent. NCB will be also used for packages of contracts such as construction of social centers located in neighboring areas, since the value of the contract (US$ 300,000) is small and unlikely to attract international competition. Smaller contracts mostly of rehabilitation, estimated to cost less than US$ 75,000 up to an aggregate not exceeding US$ 400,000 may be procured through simplified procedure acceptable to the IDA. Contracts of less than US$ 30,000 may be procured through community participation procedures if local capacity will be deemed adequate for the purpose.

Consultants

All consultants will be hired in accordance with the IDA Guidelines on Consultants. For firms, Quality and Cost-Based Selection (QCBS) will be used for all contracts above US$ 100,000; Fixed Budget selection method may be used for TA contracts for training or capacity building since their cost estimate is well known. Qualifications selection method may be used for small contracts at community level, estimated to cost less than US$ 100,000. These include assignments to support health impact assessment and micro-projects; and communications campaign in rural areas.

All individual consultants will be hired based on qualifications.

Table A: Project Costs by Procurement Arrangements
(US$ million equivalent)

Expenditure Category	Procurement Method[1]				
	ICB	NCB	Other[2]	N.B.F.	Total Cost
1. Works	0.00	3.31	0	0.00	3.31
	(0.00)	(2.70)	(0.00)	(0.00)	(2.70)
2. Goods	4.69	0.00	2.37	0.00	7.06
	(3.30)	(0.00)	(2.00)	(0.00)	(5.30)
3. Drugs and HAMSET devices	14.34	0.00	0.00	0.00	14.34
	(15.00)	(0.00)	(0.00)	(0.00)	(15.00)
4. Special Funds	0.00	0.00	9.35	0.00	9.35
	(0.00)	(0.00)	(5.80)	(0.00)	(5.80)
5. Consulting Services, Studies	0.00	0.00	9.14	0.00	9.14
	(0.00)	(0.00)	(9.60)	(0.00)	(9.60)
6. Project supervision and Management	0.00	0.38	1.22	0.00	1.60
	(0.00)	(0.30)	(0.30)	(0.00)	(0.60)
6. Recurrent Costs				4.87	4.87
				(0.00)	(0.00)
7. PPF	0.40				0.40
	(0.40)				(0.40)
Total[3]	19.43	3.69	21.96	4.89	50.00
	(18.65)	(3.05)	(18.30)		(40.00)

[1/] Figures in parenthesis are the amounts to be financed by the IDA Credit. All costs include contingencies

[2/] Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

[3/] Unallocated is (0.60)

Prior review thresholds (Table B)

All contracts for civil works greater than US$ 500,000 and goods greater than US$ 100,000 will be subject to prior review by the IDA.

For consulting services, all TORs are subject to prior review by the IDA. All contracts above US$ 100,000 for firms and US$ 50,000 for individuals will also be subject to prior review.

Table B: Thresholds for Procurement Methods and Prior Review [1]

Expenditure Category	Contract Value Threshold (US$ thousands)	Procurement Method	Contracts Subject to Prior Review (US$ millions)
1. Works	>100	ICB	All contracts for ICB
	<100	NCB	Only first 2 contracts
	<75	Community Participation	
2. Goods	>100	ICB	All contracts for ICB
	>30<100	NCB	Only first 2 contracts
	<30	NS	
3. Services	>100	QCBS	All
	<100	Other	First 2 contracts

Total value of contracts subject to prior review:

Overall Procurement Risk Assessment

Low

Frequency of procurement supervision missions proposed: One every 6 months (includes special procurement supervision for post-review/audits)

[1] Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

Disbursement

Allocation of credit proceeds (Table C)

Only one special account will be necessary, since procurement for most large purchases/TA will be centralized at PMU. The PMU will be responsible for ensuring that financial management and reporting procedures for the project will be acceptable to the Association. Under the direction of the PMU Director, the Project Management Unit will be responsible for the entire financial management, accounting, and disbursement functions of the project, including management of the Special Account, processing contracts, and payments for goods and services.

Review of financial management systems. A Financial Management Capacity Assessment was carried out during pre-appraisal to determine the borrower's and implementing agencies' capacity to maintain financial management systems, including accounting, financial reporting, and auditing systems to ensure that the agencies can provide to the Association accurate and timely information regarding project resources and expenditures, in accordance with *OP/BP 10.02*. The review focused on assessment of the Finance Unit of the lead Ministry of Health, Accounting Units in the Zobas, as well as arrangements for financial reporting and accountability for project funds by the Health PMU, which is implementing an IDA funded project with regional-based operations. The review found the PMU systems satisfactory, and expected to be ready for PMR-based disbursement mechanism after successful implementation of the action plan prepared and agreed with the borrower.

As part of project appraisal, capacity of other implementing agencies and Zoba level structures have been reviewed and in view of the limitations in the manpower available for accounting and financial management at decentralized levels, a number of next steps have been agreed upon with the Government, including staffing and training.

Project planning and budgeting. The project financial management system will be documented in the Manual of Financial Procedures, to include statements and explanations of the project's budgetary policies and procedures that describe responsibilities for budget preparation, adoption, execution, monitoring, and reporting. The Manual will also cover Financial Policies and Procedures, Accounting and Internal Control Systems, Procurement and Contract Administration and Monitoring System, Financial Reporting, Flow of Funds, and Auditing Arrangements. The Manual is under preparation, with guidance from a financial management expert, and was completed during negotiations. A draft outline of the manual of financial procedures was prepared and discussed with the PMU during appraisal.

Disbursements, replenishments and documentation. While it is desirable to have PMR-based disbursement from the beginning of the project, it has been decided that the project will move towards a *LACI*-based system only in a progressive manner. Thus, in the short-term, existing disbursement procedures, as outlined in the World Bank's *Disbursement Handbook*, i.e. Direct Payment, Reimbursement and Special Commitment (if appropriate), will be followed. During the transition period (about 18 months), disbursement of funds will be made against Withdrawal Applications with full documentation or against Statements of Expenditure (SOEs) submitted by the borrower.

To facilitate the flow of funds to the project, the PMU will open bank accounts as follows:

- Special Account in US Dollars for IDA funds.
- Project Account in Nakfa for Counterpart funds and local expenditures. Transfers to the regions

will also be made from this account.

. Special Accounts in US Dollars for funds from other partner agencies, as may be appropriate.

Transfer of funds to regions and sub-regions, as also for activities to be carried out at National level by implementing ministries/agencies, will be through program advances following submission of a request for funds based on approved work plans, together with accountability for previous advances, if any. Once the necessary documentation is reviewed and approved by the PMU, funds will be transferred from the Project Account to the regional bank account/implementing agencies' account, either by issuing a check or bank transfer. Details on surrender of advances issued to the *Zobas/implementing agencies,* and accountability of the funds will be included in the Manual of Financial Procedures.

Project accounting system. Consultants will be hired to help the Project Management Unit adapt or expand its existing well functioning financial management system including a comprehensive manual of financial procedures, Chart of Accounts, and a fully integrated project accounting structure, using an appropriate accounting software. The Financial Management System will produce a Project Financial Statement, including Summary of Sources and Uses of Funds, Special Account Reconciliation Statement, Cash Withdrawal Statement, and Cash Forecast. The Chart of Accounts will facilitate presentation of summary expenditures by Component, Activity, and Disbursement Category. The Project Management Unit will maintain accounts and make payments for eligible expenditures.

Overall, the project will satisfy the IDA's minimum financial management requirements. Appraisal of the existing financial management capacity at decentralized levels indicates that there are potential risks associated with capacity limitations, and lack of clear written standards and procedures that give guidance for internal control and accounting, with clear delegation and segregation of duties among agencies. These risks may result in unintentional errors, omissions, miscalculations, late submission of financial statements, and delays in the flow of funds to the decentralized levels. Successful implementation of the financial management action plan will, however, allow the project to satisfy the IDA's minimum requirements under *OP/BP10.02.* Actions required to meet requirements for PMR-based disbursement, under *LACI/FINMI,* have been developed and agreed with the borrower during appraisal, and include development of a fully integrated financial management system, incorporating project reporting formats, and strengthening accounting systems and staffing in the decentralized levels and agencies.

Successful adaptation of the financial management system, with the help of Financial Management Consultants, should facilitate the introduction of PMR-based disbursements within 18 months of effectiveness. A financial management review of the program should be undertaken by an IDA Financial Management Specialist within twelve months of effectiveness to assess progress and initiate the process of conversion.

Financial reporting. The appraisal mission has reviewed the relevant outputs such as formats of the various periodic and annual reports to be generated from the financial management system. The financial reports will be designed to provide quality and timely information to project management, implementing agencies, and various stakeholders on project performance.

The main reports will include standard financial statements (e.g. sources and application of funds, expenditures classified by project components, disbursement categories, and expenditure types, and comparison with budgets, short-term forecasts of expenditure, unit costs for key items, etc.). Annual Financial Statements and Annexes and notes for the project will be subject to audit by independent

auditors and submitted to the IDA within six months after the end of each fiscal year.

Audit arrangements. In order to comply with IDA reporting requirements, an independent and qualified audit firm, with experienced staff, will carry out an annual audit of the project accounts. A contract, renewable annually and subject to satisfactory performance, will be concluded between the borrower and the selected audit firm for the life of the project. Terms of Reference for the annual audits will cover the IDA requirements for audit of the project accounts and review of internal control systems, inter-alia, for reliability of PMRs. Any firm of auditors appointed to carry out the audit should meet the IDA's requirements in terms of independence, qualifications, and experience. In order to be cost-efficient and since the documentation will be managed by the same unit, the Government has proposed to use the same firm that is auditing, in a satisfactory manner, the existing Health project.

In summary, the development of the financial management system will have two phases: interim and final. The interim phase will involve setting up financial management and accounting structure that meets minimum financial management requirements under *OB/BP 10.02*. This will be adapted from the existing system for the Health project, and should be in place when the project becomes effective. The final phase will involve setting up a fully integrated computerized project accounting system, using an appropriate accounting software, in readiness for adoption of PMR-Based Disbursements, within 18 months of effectiveness. The action plan below provides the actions to be taken during each of the two phases, and the dates they are due to be completed.

Actions to satisfy Minimum IDA Requirements

The table below summarizes actions required to satisfy the IDA's minimum financial management requirements. Major actions include the documentation of accounting systems and procedures in a Manual of Financial Procedures, and the recruitment of appropriately qualified staff for the Management Office and the regions. Responsibility for implementation of the action plan is with the Ministry of Health. Successful implementation of the action plan will allow the project to satisfy the IDA's minimum financial management requirements under *OP/BP 10.02*.

	Required Action	Date	Comments
1	Core Project Management Team on board.	Oct. 16, 2000	Draft organizational structure agreed and confirmed during Appraisal.
2	Appointment of Project Accountant. Appointment/deployment of Zoba Project Accountants.	Oct. 16, 2000 By Effectiveness	Recruitment of Project Accountant done. Process to identify Zoba project accountants started.
3	Training of Project Accountant and Zoba project accountants completed (training to cover project accounting and IDA disbursement procedures).	By Effectiveness	Training package to be agreed with the IDA and delivered during project launch.
4	Develop dedicated project accounting system, using existing accounting software, and reporting package.	By Effectiveness	With assistance of financial management consultants.
5	Accounting procedures and internal controls fully documented in a Manual of Financial Procedures.	Oct. 31, 2000	Process completed.

6	Design and setting up of books of accounts to be maintained for the project.	Oct. 31, 2000	With assistance of PMU A & F Officer, and consultant.
7	Arrangements to ensure that accounting records are maintained on a timely basis, self balanced and all accounts reconciled at all times to ensure accuracy and reliability.	Oct. 31, 2000	Documented in the Manual of Financial Procedures.
8	Standards and explanations of budgetary policies and procedures developed.	Oct. 31, 2000	Documented in the Manual of Financial Procedures.
9	Design of a Chart of Accounts (which is the primary tool for ensuring availability of the information required, for achieving consistency in account classification).	Oct. 16, 2000	With the assistance of consultant. Also covered in the Manual of Financial Procedures.
10	Appropriate banking arrangements to be made, e.g., opening of Special Accounts in US Dollars and project accounts in Nakfa, at Head Office and Regions.	By Effectiveness	Authorized bank signatories to be communicated to IDA. Provision for designates may be necessary.
11	Appointment of an independent external auditor in accordance with Terms of Reference acceptable to the IDA.	By Effectiveness	Terms of Reference were discussed and agreed at negotiations.
12	Flow of and accountability for funds to line ministries, agencies, Zobas and sub-Zobas fully documented in the Manual of Financial Procedures.	Oct. 31, 2000	To be based on draft organizational structure.

Actions Required to achieve *LACI/FINMI* Compliance.

The table below details the required actions to be taken in order to comply with Loan Administration Change Initiative (LACI) requirements for PMR-Based Disbursement procedures.

	Required Action	Date	Comments
1	Development of a fully integrated financial management system using an appropriate accounting software. Accounting systems and staffing in the Zobas strengthened.	June 31, 2001	With assistance of financial management/IT consultants. System to run parallel with the manual system for at least 3 months.
2	Project reporting formats developed including: . Sources and Application of Funds statement; . Special Account reconciliation; . Contract and other procurement information; . Project progress information; . Forecasts for subsequent 6 months period.	By Effectiveness	To be agreed with IDA. Transitional PMRs to be submitted to IDA under existing disbursement procedures.
3	Transition to PMR-Based Disbursement.	Oct. 31, 2001	FMS to review and initiate process of conversion to PMR-based Disbursement within twelve months of effectiveness.

NB: The appointment of a reasonably qualified and experienced Project Accountant as well as the successful implementation of the financial management system, should facilitate the introduction of PMR-based disbursements within 18 months of effectiveness. In this regard, a financial management review of the program should be undertaken by an IDA Financial Management Specialist within twelve months of effectiveness to assess progress.

The following additional actions will ensure effective project financial management in both phases.

	Required Action	Date	Comments
1	Project objectives, components and sub components to be financed, and expenditure categories associated with each component/sub-component determined.	Completed	To be set out in the project documentation.
2	Laws, rules and regulations that may affect any financial management aspect of the project determined.	Completed	To be set out in the project documentation.

3	Institutional arrangements for the overall policy guidance of the project's financial management activities.	Completed	To be set out in the project documentation.
4	Identification of Inputs and Outputs of financial information required to track project implementation.	Completed	To be set out in the project documentation.
5	Refinement of Inputs and Outputs of physical information to be identified and matched with financial information.	By Effectiveness	To be set out in the project documentation.
6	Determination of availability and reliability of information for performance indicators.	By Effectiveness	To be set out in the project documentation.
7	Arrangements for recording project impacts, outcomes, outputs, and inputs that are required to assess project progress toward project objectives.	By Effectiveness	To be set out in the project documentation.

Table C: Allocation of Credit Proceeds

Expenditure Category	Amount in US$million	Financing Percentage
1. Civil Works	2.70	80%
2. Goods	5.30	80%
3.Drugs, Condoms, and Bednets	15.00	100% Foreign Expenditures 80% Local Expenditures
4.Special Funds/Grants	5.80	100% Foreign Expenditures 90 % Local Expenditues
5. Consultants Services, Studies & Training	9.60	100%
6. Project Supervision & Management	0.60	80%
7. PPF refinancing	0.40	
Unallocated	0.60	
Total Project Costs	40.00	
Total	40.00	

Annex 7: Project Processing Schedule

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

Project Schedule	Planned	Actual
Time taken to prepare the project (months)		
First Bank mission (identification)	10/20/99	10/20/99
Appraisal mission departure	09/18/2000	09/18/2000
Negotiations	11/08/2000	11/08/2000
Planned Date of Effectiveness	03/15/2001	

Prepared by:

Ministries of Health, Education, Labor and Human Welfare, Agriculture, Defense, Tourism, Information, Finance, Local Government; National Association of Eritrean Women; National Union of Women Youth; National Union of Workers.

Preparation assistance:

Bank staff who worked on the project included:

Name	Speciality
Eva Jarawan	Task Team Leader
Christine Pena	Economist
Donald Bundy	School Health
Montserrat Meiro-Lorenzo	Health Specialist (during preparation)
Magda Lara-Resende	Environment and Community participation
Lawrence Barat	Malaria Specialist
Gordon Temple	Project Design and Costing Specialist
Cecilia C. Versoza	Internal Communications Specialist
E.V. Shantha	Implementation Specialist
Sheila Dutta	HIV/AIDS Specialist
Marijke Becx-Bleumink	TB specialist
Francesco Sarno	Lead Procurement Specialist
John Otieno Ogallo	Financial Management Specialist
Nathalie J. Lopez-Diouf	Program Assistant

Quality Assurance Team: Ok Pannenborg (AFTH4); Irene Xenakis (AFTQK); Christopher Walker (HDNHE).
Quality Enhancement Review: Dan Ritchie (SDV); Daniel Miller, Susan Stout, Mariam Claeson (HDNHE).

Annex 8: Documents in the Project File*

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

A. Project Implementation Plan

- Draft Project Implementation Arrangements (received on July 24, 2000).
- First Draft Implementation Manual.
- Draft Financial Manual.

B. Bank Staff Assessments

- Mission Aide-Memoire - February 25, March 16, 2000.
- Mission Aide-Memoire - May 8-20, 2000.
- Mission Aide-Memoire - for September, 2000.

C. Other

- Primary Health Care Policy and Policy Guidelines - September 1998 - Ministry of Health – Eritrea.
- Five Year Strategic Plan to Prevent and Control HIV/AIDS in the State Of Eritrea - August 1997 - Ministry of Health – Eritrea.
- Five Year Strategic plan to Control Malaria in the State of Eritrea- Ministry of Health - Eritrea WHO/PHARPE I & II .
- HIV/AIDS/STD National Control Policy & Policy Guidelines.
- Malaria National Control Policy & Policy Guidelines.
- Tuberculosis National Control Policy & Policy Guidelines.
- Two year strategic plan for Tuberculosis Control- Ministry of Health.
- Eritrea Essential Drug List.
- Eritrea Standard Guidelines.
- HHRR Inventory - Ministry of Health, 1999.
- SEMISH Annual Report - 1999.
- School health Policy - Environmental Evaluation, Mr. Arata - May 2000.
- USAID Mission Report & Evaluation of Malaria & AIDS Program.
- HIV/AIDS & STDs Policy and Policy Guidelines - Ministry of Health, Eritrea.
- Sexual & Reproductive Health Policy and Guidelines - Ministry of Health, Eritrea.
- Child Health Policy and Guidelines - Ministry of Health, Eritrea.
- Environmental Health Policy and Guidelines - Ministry of Health, Eritrea.
- Donaldson, D. 2000. Eritrea-Health Sector Note: Economic and Financial Analysis. Draft Technical Report - Asmara, Eritrea.
- Forsberg, B.C. 2000. Review of HAMSET Project. Technical Report. Asmara, Eritrea.
- Scheuemaier, M. 2000. Measuring the Cost-effectiveness of Achieving Malaria Control Objectives in a Health Project in Eritrea. Draft Technical Report. Washington, D.C..

*Including electronic files

Annex 9: Statement of Loans and Credits

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

15-Oct-2000

Project ID	FY	Borrower	Purpose	Original Amount in US$ Millions IBRD	IDA	Cancel.	Difference between expected and actual disbursements* Undisb.	Orig	Frm Rev'd
P039264	1996	Eritrea	COMMUNITY DEVELOPMENT FUND	0.00	17.50	0.00	2.10	2.12	0.00
P043124	1998	Eritrea	HEALTH PROJECT	0.00	18.30	0.00	14.55	8.46	0.12
P050354	1998	Eritrea	HUMAN RES.DEV	0.00	53.00	0.00	30.42	3.73	0.00
P068463	2001	Eritrea	INTEGRATED EARLY CHILDHOOD PROJECT	0.00	40.00	0.00	37.99	0.00	0.00
P034154	1998	Eritrea	PORTS	0.00	30.30	0.00	15.22	9.93	0.00
P044651	1997	Eritrea	ROAD ENGR. CREDIT	0.00	6.32	0.00	0.82	1.11	0.00
			Total:	0.00	165.42	0.00	101.10	25.35	0.12

ERITREA
STATEMENT OF IFC's
Held and Disbursed Portfolio
15-Oct-2000
In Millions US Dollars

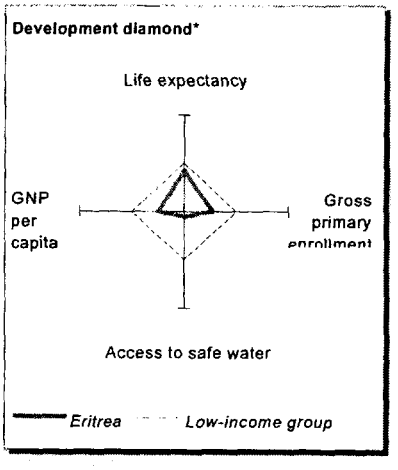
		Committed IFC				Disbursed IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1997	SEF Tesinma	0.73	0.21	0.00	0.00	0.40	0.21	0.00	0.00
	Total Portfolio:	0.73	0.21	0.00	0.00	0.40	0.21	0.00	0.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic
	Total Pending Commitment:	0.00	0.00	0.00	0.00

Annex 10: Country at a Glance

ERITREA: HIV/AIDS, Malaria, STDs & TB (HAMSET) Control Project

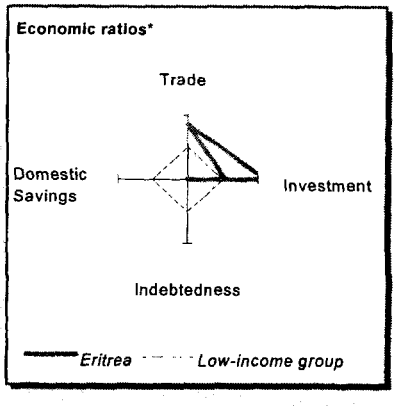
POVERTY and SOCIAL	Eritrea	Sub-Saharan Africa	Low-income
1999			
Population, mid-year *(millions)*	4.0	642	2,417
GNP per capita *(Atlas method, US$)*	200	500	410
GNP *(Atlas method, US$ billions)*	0.79	321	988
Average annual growth, 1993-99			
Population *(%)*	2.7	2.6	1.9
Labor force *(%)*	2.7	2.6	2.3
Most recent estimate (latest year available, 1993-99)			
Poverty *(% of population below national poverty line)*	..	..	..
Urban population *(% of total population)*	18	34	31
Life expectancy at birth *(years)*	51	50	60
Infant mortality *(per 1,000 live births)*	61	92	77
Child malnutrition *(% of children under 5)*	44	32	43
Access to improved water source *(% of population)*	7	43	64
Illiteracy *(% of population age 15+)*	47	39	39
Gross primary enrollment *(% of school-age population)*	53	78	96
Male	59	85	102
Female	48	71	86



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

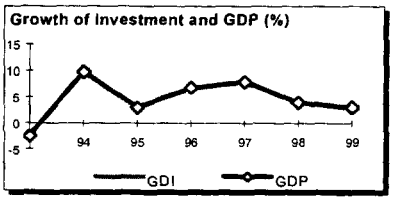
	1979	1989	1998	1999
GDP *(US$ billions)*	..	..	0.68	0.67
Gross domestic investment/GDP			47.2	44.6
Exports of goods and services/GDP	..	..	16.0	14.9
Gross domestic savings/GDP			-24.5	-20.1
Gross national savings/GDP			12.2	14.0
Current account balance/GDP			-35.0	-32.6
Interest payments/GDP			0.5	0.3
Total debt/GDP	..	..	20.8	33.5
Total debt service/exports			1.5	1.4
Present value of debt/GDP	..	..	..	..
Present value of debt/exports				

	1979-89	1989-99	1998	1999	1999-03
(average annual growth)					
GDP	5.2	3.9	3.0	6.1	
GNP per capita	1.8	-5.8	-4.0	3.5	
Exports of goods and services	..	-1.6	-46.6	-4.0	16.9

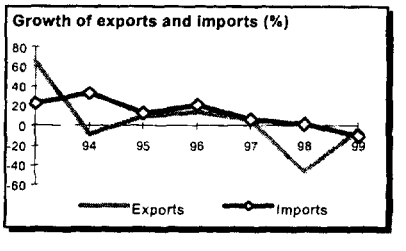


STRUCTURE of the ECONOMY

	1979	1989	1998	1999
(% of GDP)				
Agriculture		16.9	16.1	16.0
Industry		33.6	27.4	27.3
Manufacturing		30.0	14.1	13.9
Services		49.5	56.5	56.6
Private consumption			75.5	72.5
General government consumption			49.0	47.6
Imports of goods and services	..	..	87.6	79.5



	1979-89	1989-99	1998	1999
(average annual growth)				
Agriculture	..	..	..	..
Industry				
Manufacturing	..	..	..	..
Services				
Private consumption	..	..	..	..
General government consumption				
Gross domestic investment				
Imports of goods and services		12.4	1.5	-10.0
Gross national product		4.6	-3.2	1.9

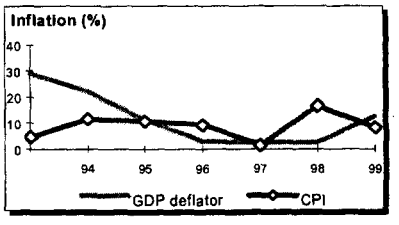


Note: 1999 data are preliminary estimates. GDP components are estimated at factor cost.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

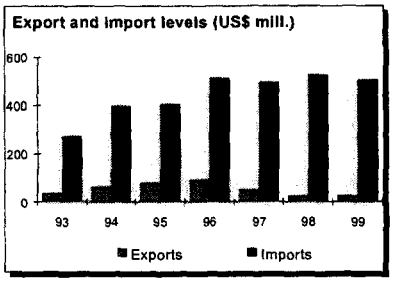
PRICES and GOVERNMENT FINANCE

	1979	1989	1998	1999
Domestic prices				
(% change)				
Consumer prices	..	..	16.6	8.3
Implicit GDP deflator	..	..	2.7	12.6
Government finance				
(% of GDP, includes current grants)				
Current revenue	..	..	34.8	29.2
Current budget balance	..	..	-11.6	-16.2
Overall surplus/deficit	..	..	-41.4	-50.2



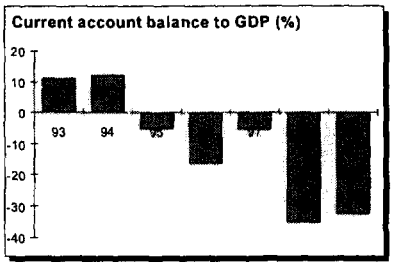
TRADE

	1979	1989	1998	1999
(US$ millions)				
Total exports (fob)	..	..	28	26
n.a.	..	..	..	..
n.a.	..	..	..	..
Manufactures	..	..	7	..
Total imports (cif)	..	..	527	507
Food	..	..	75	..
Fuel and energy	..	..	6	..
Capital goods	..	..	139	..
Export price index *(1995=100)*	..	..	..	..
Import price index *(1995=100)*				
Terms of trade *(1995=100)*	..	..	..	..



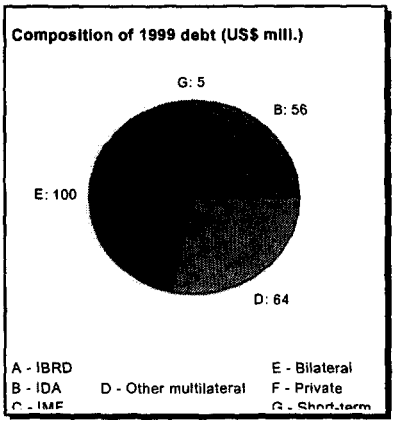
BALANCE of PAYMENTS

	1979	1989	1998	1999
(US$ millions)				
Exports of goods and services	..	..	109	100
Imports of goods and services	..	..	597	562
Resource balance	..	..	-488	-462
Net income	..	..	4	3
Net current transfers	..	..	246	240
Current account balance	..	..	-238	-219
Financing items (net)	..	..	73	227
Changes in net reserves	..	..	165	-8
Memo:				
Reserves including gold *(US$ millions)*			145	122
Conversion rate *(DEC. local/US$)*	..	..	7.4	8.7



EXTERNAL DEBT and RESOURCE FLOWS

	1979	1989	1998	1999
(US$ millions)				
Total debt outstanding and disbursed	..	..	142	225
IBRD	..	..	0	0
IDA	..	..	37	56
Total debt service	..	..	4	3
IBRD	..	..	0	0
IDA	..	..	0	0
Composition of net resource flows				
Official grants	..	..	74	..
Official creditors	..	..	65	69
Private creditors	..	..	0	0
Foreign direct investment	..	..	0	..
Portfolio equity	..	..	0	..
World Bank program				
Commitments	..	..	53	0
Disbursements	..	..	6	16
Principal repayments	..	..	0	0
Net flows	..	..	6	16
Interest payments	..	..	0	0
Net transfers	..	..	6	16



Additional
Annex No.: 11

HIV/AIDS Prevalence Ranking in Sub-Saharan Africa: 28

Background

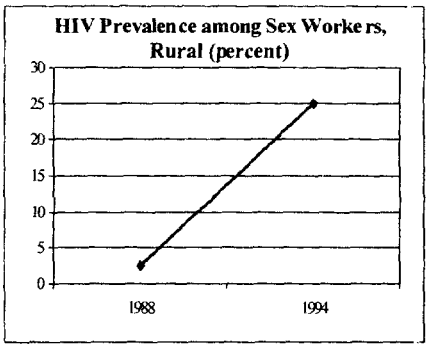
- Eritrea's relatively low prevalence rate could prove deceptive as the compound effect of HIV/AIDS is dramatic. For example, a 3 percent HIV prevalence rate equates to a 20 percent lifetime risk. A prevalence rate of 20 percent leads to a 50 percent lifetime risk.
- There is limited data on HIV prevalence among sex workers in Eritrea. In 1988, 2 percent of sex workers in Asmara tested positive; the prevalence rate increased to 6 percent in 1989. In 1988, 3 percent of sex workers tested in Assab, Keren, and Massawa were HIV-positive, with a range of 1 to 32 percent in Assab. In 1994, 25 percent of sex workers tested in a non-specified geographic area were HIV-positive.
- There is no information on HIV prevalence rates among STI patients; only one site in the country has recorded HIV prevalence levels among pregnant women (rural, 1994).
- Information on knowledge and behavior related to HIV/AIDS is essential in identifying populations at risk of infection and is critical in assessing changes over time as a result of prevention efforts. In 1995, only 2.6 percent of women ages 20-29, who are most likely to get pregnant, reported ever using a condom. Currently, there is little information available on men and condom use.

Key Data
(Source: UNAIDS Eritrea Country Profile, June 2000)

Prevalence among Ages 15-49: 2.87%
Total Population (1997): 3.4 million
People Living with HIV/AIDS (2000): 49,000
Adults (15-49): 49,000
Women (15-49): unknown
Children (0-15): unknown
Cumulative AIDS Deaths: unknown
AIDS Deaths in 1997: unknown
Number of HIV/AIDS Orphans (alive at the end of 1997): unknown
HIV Prevalence among Pregnant Women (median):

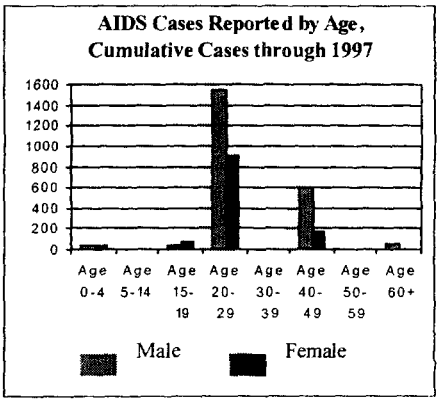
Country Response/Obstacles

- Decades of war in Eritrea have caused social and economic destruction, thereby facilitating the spread of HIV/AIDS and impeding progress to halt the epidemic.
- Upon achieving independence, Eritrea created a National AIDS Control Program within the Communicable Disease Control Division of the Ministry of Health.
- As of 1996, there was no formal surveillance program, laboratory testing was unreliable, and diagnosis was inadequate. Rapid urbanization and increased mobility after the war have greatly increased the risks as-sociated with HIV/AIDS.
- The Government has established a registry for commercial sex workers and provides ser-vices for screening, counseling, condom distribution, and treatment of STIs.



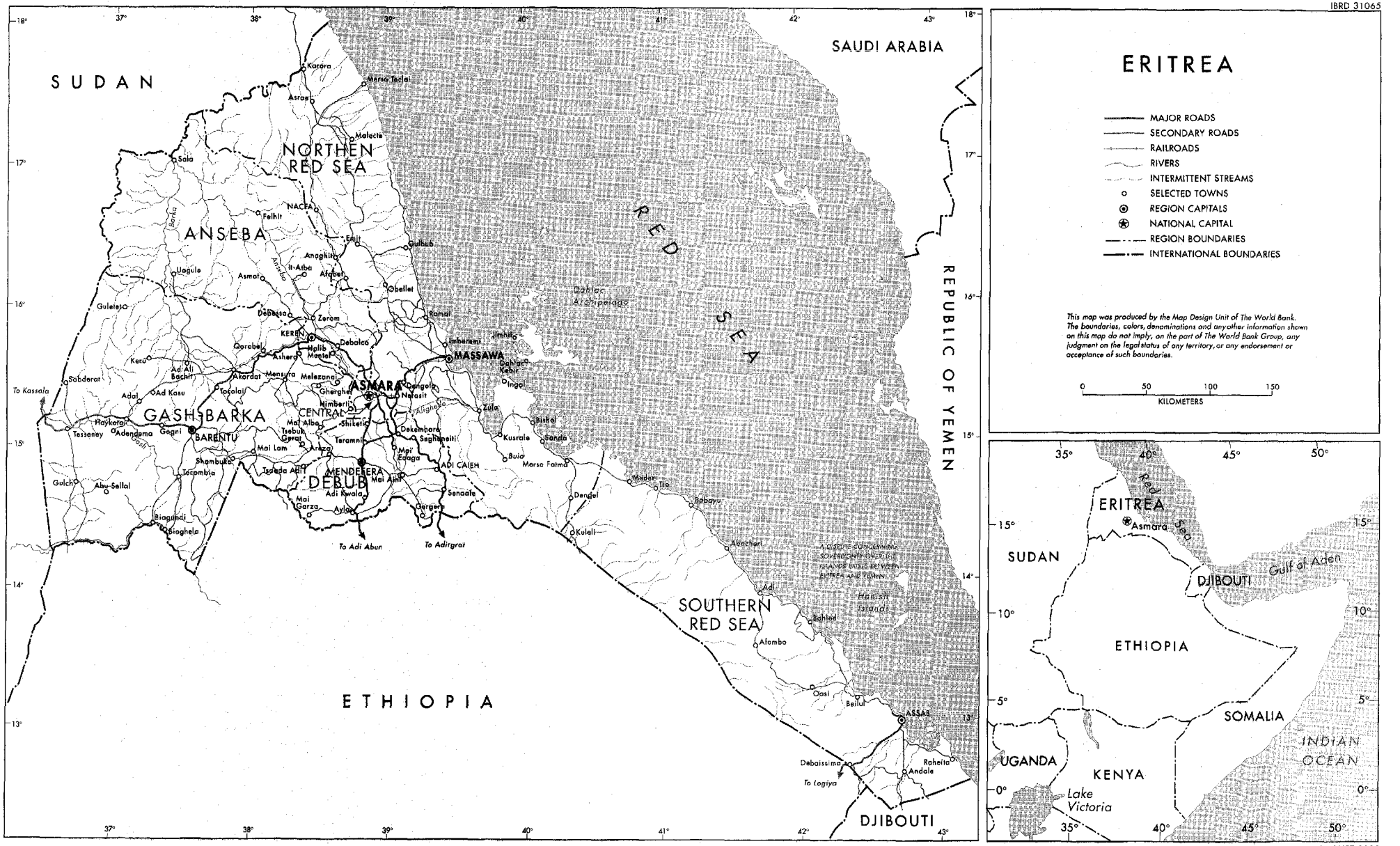
Data Limitations

The 2.87 adult HIV/AIDS prevalence rate cited by UNAIDS (above) is likely to be an underestimate of the actual situation. Given the paucity of available surveillance data, this statistic was developed by applying the 1994 prevalence rate from the WHO Global Programme on AIDS to the country's 1999 adult population.



MAP SECTION

IBRD 31065



AUGUST 2000