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**STAFF APPRAISAL REPORT**

**REPUBLIC OF UGANDA**

**ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING PROJECT**

**AUGUST 14, 1995**

**Agriculture and Environment Operations Division  
Eastern Africa Department  
Africa Region**

## CURRENCY EQUIVALENTS

Currency Unit	=	Uganda Shillings (U Sh)
US\$1.00	=	U Sh 950 (at appraisal)
SDR 1.00	=	US\$1.57 as of May 1995

## WEIGHTS AND MEASURES

Metric System

## ABBREVIATIONS AND ACRONYMS

APE	-	Action Program for the Environment (Funded by USAID)
ADB	-	African Development Bank
AWF	-	African Wildlife foundation
CARE	-	Cooperative Assistance and Relief Everywhere
DANIDA	-	Danish International Development Agency
DCMF	-	District & Community Micro-Project Fund
DEC	-	District Environmental Committee
DEO	-	District Environment Officer
DEP	-	Department of Environment Protection
DOE	-	Directorate of Environment Protection
DFI	-	District technical Planning Committee
ELU	-	Environment Liaison Units
FAO	-	United Nations Food and Agriculture Organization
FFPS	-	Fauna and Flora Protection Society
GDP	-	Gross Domestic Product
GEF	-	Global Environment Facility
GNP	-	Gross National Product
GOU	-	Government of Uganda
ICB	-	International Competitive Bidding
IDA	-	International Development Association
IUCN	-	World Conservation Union
JEEP	-	Joint Energy and Environment Project
LCB	-	Local Competitive Bidding
MAAIF	-	Ministry of Agriculture, Animal Industry and Fisheries
MFEP	-	Ministry of Finance and Economic Planning
MNR	-	Ministry of Natural Resources
NEAP	-	National Environmental Action Plan
NEIC	-	National Environment Information Center
NEMA	-	National Environment Management Authority
NGO	-	Non Governmental Organization
NRC	-	National Resistance Council
PRA	-	Participatory Rapid Appraisal
PVO	-	Private Volunteer Organization
RC	-	Resistance Council
SIDA	-	Swedish International Development Agency
SOE	-	State of the Environment
SSA	-	Sub-Saharan Africa
UIA	-	Uganda Investment Authority
UNDP	-	United Nations Development Program
UNEP	-	United Nations Environment Program
UNSO	-	United Nations Sahelian Operations
USAID	-	United States Agency for International Development
WCS	-	Wildlife Conservation Society
WRI	-	World Resources Institute
WWF	-	World Wide Fund for Nature

# REPUBLIC OF UGANDA

## ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING PROJECT

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This report is based on the findings of an Appraisal Mission carried out in June/July 1994. The mission was led by John Evans (Task Manager and Institutional Specialist), and comprised of Narpal Jodha (Community Development Specialist), Nathalie Johnson (Environmental Specialist), and Richard Carroll (Consultant - Financial Analyst). The mission benefited from earlier inputs from Hassan Hasan (ENVLW), and Water Lusigi (AFTES). The Appraisal Mission was followed up by a mission which adopted a highly participatory approach to finalizing the documentation. Hence the inputs of the NEAP/NEMA Secretariat, which made significant inputs to the preparation of this SAR, are acknowledged. That team was led by Frank Turyatunga (Team Leader, NEAP/NEMA Secretariat) and included David Ogaram, Martin Odwedo, Cornelius Kazoora, Geoffrey Lamtoo and Charles Sebukeera. In addition, staff of the USAID APE program supplies substantial inputs. The Lead Adviser, in the initial stages was Cynthia Cook (now Division Chief), and the peer reviewers were Jasdeep Singh (AF41E), and Jan Bojo (AFTES). Staff of the Eastern Africa Department, and particularly, the Agriculture and Environment Operations Division provided substantive inputs and guidance to the mission. Ms. S. Ganguly and Mr. J. Adams are the managing Division Chief, and Departmental Director, respectively. Mmes Donna Criddle, Sarah Ismael, Fabiana Dardatti, Maxime Gunawardane, Brenda Mudd provided major help in processing and editing the documents.

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## REPUBLIC OF UGANDA

### ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING PROJECT

#### Credit and Project Summary

<b>Borrower:</b>	Republic of Uganda
<b>Implementing Agency:</b>	National Environment Management Authority with the assistance of: Local Governments at District and Sub-County Level; Non-Governmental Organizations.
<b>Beneficiaries:</b>	Government and Non-Government Organizations; Sectoral Ministries dealing with environmental issues; Local Government at District, Sub-County, and Parish Level; Communities in Target Districts.
<b>Poverty:</b>	Not Applicable
<b>Amount:</b>	SDR 7.5 Million, (US\$11.8 million equivalent)
<b>Terms:</b>	Standard with 40 years maturity
<b>Financing Plan:</b>	See Schedule A
<b>Net Present Value:</b>	Not Applicable
<b>Staff Appraisal Report:</b>	No. 14015-UG
<b>Map:</b>	IBRD 26375
<b>Project Identification No.</b>	UG-PA-2978



## 1. INTRODUCTION

1.1 Uganda has a population of 17.0 million spread over a land area of 195,000 square kilometers. With a per capita income of only US\$225 (1994), it is one of the poorest countries in the world. Its current economic situation is the legacy of nearly 15 years of political turmoil and economic decline brought about by despotic rule and economic mismanagement. Over the period 1987-1993, real Gross Domestic Product (GDP), grew by an average of 5.4 percent per annum, a gain of about 2.5 percent per year in per capita terms.

1.2 Today, the backbone of the economy is agriculture, just as it was at independence in 1962. The process of structural transformation from agriculture to other productive sectors, which was in progress during the early years of independence, was effectively stalled by the inappropriate economic policies and political developments that followed. In the 1970s and early 1980s, the agricultural sector accounted for 44 percent of GDP (compared to 59 percent today), and it still employs more than 80 percent of the labor force. Almost 90 percent of the population still lives in rural areas.

1.3 Agricultural output comes almost exclusively from about 2.5 million smallholders. Food crop production accounts for about 70 percent of agricultural GDP. Export crop production, dominated by coffee, is only 5 percent of agricultural GDP. In recent years (1986-93), the agricultural sector growth has averaged 6.0 percent per year, well above the annual population growth rate of 2.6 percent. This rapid growth represents recovery from a low base, vastly reduced by the internal conflicts and economic mismanagement in the late 1970s and the early 1980s.

1.4 Since mid-1987, Uganda has been implementing an economic recovery program, supported by financial and technical assistance from the International Monetary Fund, the World Bank, and other multilateral and bilateral donors. The objective of the Government's program is to reduce poverty through the acceleration of economic growth and the provision of key social services to the poor. The key elements have been to restore fiscal and monetary discipline, improve the incentive structure and investment climate for exports and other productive activities, rehabilitate the country's social, economic and institutional infrastructure, and to promote increased savings and investment, especially by the private sector.

1.5 As a result of the policy reforms and adjustment measures undertaken, the country realized an encouraging annual average GDP growth rate of 7.7 percent from 1986-1993. High inflation also seems to have been controlled as inflation, which was 63 percent between March 1991 and March 1992, now is estimated to be below 10 percent. Over the medium-term, the Government's economic program aims for a real GDP growth of at least 5 percent per annum, although the latest Country Economic Memorandum suggests that an even higher growth rate is needed for successful poverty reduction. In this high growth scenario, the private sector must play the lead role

through investment in the agricultural and industrial sectors. The Government's role is to facilitate sustainable economic growth through: (i) the implementation of macroeconomic policies that encourage investment and mobilize domestic savings; (ii) the provision of social services (i.e., education and health) needed to develop human resources; and (iii) addressing environmental issues. There is now an up-beat spirit in Uganda owing to the increasing stability of the country and a relatively liberal economic environment. The results are evident as many of Uganda's educated people are finally convinced that Uganda offers real economic opportunities and they are returning to their native country.

1.6 Sustainable growth and economic development requires that natural resources are used prudently and that environmental problems are addressed at an early stage. This condition holds true for Uganda even though the country faces less severe environmental problems and retains a more intact natural resource base than that of its neighbors. As described in Chapter 2, Uganda faces well-recognized, if not well-assessed, environmental problems in the degradation of land, forest, water and biological resources. The adverse impact of natural resource degradation on production and conservation will intensify with the rising demand for food and energy. Also, increased consumption levels will lead to higher levels of waste and pollution.

1.7 Hence, in promoting its economic growth strategy, the Government must be concerned with the associated effects of environmental degradation. On one hand, an effective strategy for environmental management ensures that the negative impacts of economic policy and the core investment program are controlled to allow for sustainable natural resource management. On the other hand, the environment strategy actively includes programs and projects which are explicitly aimed at redressing the priority environmental problems. The Government's National Environmental Action Plan (NEAP), (para. 2.1), recognizes the need for both. It also proposes an institutional framework for strategy implementation, and identifies the need for strengthening the implementation capacity. The proposed project, is designed to assist the Government in the implementation of key parts of this NEAP, especially in the strengthening of the environmental management capacity at the national and local levels. Recognizing the dynamic nature of environmentally related problems, maximum flexibility would be maintained during the course of project implementation to allow for adjustment to changing circumstances and redesigning of certain project activities where necessary. Special attention will be given to monitoring and evaluation through regular supervision missions and especially during the mid-term review (para. 4.36) to determine where changes and improvements can be made to the project implementation plan.



## 2. THE ENVIRONMENTAL SETTING

### A. BACKGROUND

2.1 When the present Government of Uganda (GOU), assumed power in January 1986, its first priority was to restore peace and political stability to a country that had been torn apart by war and internal strife for over a decade and a half. In 1987, the then Ministry of Environment collaborated with the United Nations Environment Program to review the state of the environment. The Government launched the preparation of a National Environment Action Plan (NEAP) in 1990. A NEAP Secretariat was established to manage the country-driven and highly participatory process of assessing problems, defining issues, and proposing remedial action. In 1993, following an Environment Policy Workshop, an Environment Policy Statement was drafted by the newly established National Environment Action Plan Secretariat (NEAP), and approved by the Cabinet in the same year.

2.2 The NEAP Secretariat, in developing the Action Plan was guided by a Cabinet Steering Committee and a Technical Advisory Committee. The participatory process involved setting up task forces with broad-based representation from the Government, academia, Non-Governmental Organizations (NGO), and the private sector, organizing regional workshops and holding a national conference. The Government formally approved the Environment Policy in January 1994, and the National Environment Statute, passed by Parliament in May 1995, confirmed the policy objectives and institutional arrangements for environmental management.

2.3 The Uganda NEAP grew out of the Government's own concern for ensuring sustainability in development through prudent natural resource management and environmental protection. Donors and NGOs provided technical and financial assistance to the Government's preparation process. IDA supplemented assistance from USAID, UNDP, the World Resources Institute (WRI), the World Conservation Union (IUCN), the Swedish International Development Authority (SIDA), which provided support for a Task Force on Land Management and the United Nations Sahelian Organization (UNSO) which funded sub-Task Force on Karamoja. Specifically, IDA provided support through two Special Project Preparation Facilities, the Second Economic Recovery Credit (Cr. 2087-UG), and the Forestry Rehabilitation Project (Cr. 1824-UG), for initial workshops, short-term consultancies and logistic support to the NEAP Secretariat and the Task Forces.

2.4 The Government will begin the implementation of the NEAP recommendations, starting with the establishment of a new National Environmental Management Authority (NEMA). This authority, while administratively lodged in the Ministry of Natural Resources, will be guided by a Cabinet-level Policy Committee and managed by a Board of Directors. Several IDA missions fielded during 1992 - 1994 reviewed progress on the completion of NEAP and discussed ways in which to support implementation. Considering the need for sound institutional arrangements for environmental planning and

management it was agreed that IDA funding in its first phase of long-term support to the national environment program, should be focused, in coordination with other donors, on providing institutional support to NEMA, to enable it to fulfill its role in coordinating monitoring and supervising matters related to the environment, as defined in the National Environment Statute, 1995. A detailed background paper was prepared to review options for alternative institutional arrangements which included three different institutional structures: (i) a Presidential Commission on Environment; (ii) an entirely new Ministry; and (iii) an autonomous Authority. After much debate and careful evaluation of the options, the autonomous Authority structure was chosen as the most efficient institutional arrangement. It was also agreed that IDA would fund selected community-based natural resource management micro-projects.

## B. ENVIRONMENTAL RESOURCES AND DEGRADATION

2.5 **Geography.** Uganda is a landlocked country, lying astride the equator. Its land forms are largely determined by the tectonic activity that have taken place in the East African Rift Valleys. The climate is comfortable as the tropical climate is modified by altitude, relief and the presence of large water bodies. Most of the country receives rainfall between 1,000 mm and 1,500 mm precipitation, which is less than the average for other equatorial areas, like the Amazonas and the Indo-Malayas but well above the 800 mm considered to be the limit for reliable rainfed agriculture. All these conditions make Uganda less prone to natural disasters.

2.6 The main part of Uganda is a plateau located between two rift valleys. In the West, the Western Rift Valley borders Zaire and includes two large lakes, Lake Albert and Lake Edward and Mt. Rwenzori (5,000 meters above sea level). The highlands of south-western Uganda, continuing into Rwanda and Burundi, are connected to this rift valley system. In the east, the main mountain is Mt. Elgon which is an extension of the Eastern Rift Valley Highlands of Kenya. Most of the southern country drains into Lake Kyoga and Lake Victoria, the latter being the second largest lake of the world. Uganda shares this water body with Kenya and Tanzania which receives water and nutrients from a catchment which also includes Rwanda and Burundi. Approximately one-third of Uganda's population resides in the Lake Victoria catchment area.

2.7 **Ecological Zones.** Uganda's relatively rich natural resource endowment reflects highly variable ecological conditions. The Lake Victoria region flanks the north-western shores of Lake Victoria at an altitude of 1,300m above sea level, and is characterized by swampy inlets and valleys. The primary vegetation is grass on hill tops, forest in valleys and papyrus in swamps. Hillsides and valleys are intensively cultivated. In the Mount Elgon region, fertile volcanic soils have induced intensive cultivation on steep slopes with potential for serious soil erosion and landslides. Parts of the Montane forest have been heavily encroached upon by farmers. On the Interior Plateau, covering the northern and north-eastern parts of the country, and bordering Kenya and Sudan, the annual rainfall varies between 500 mm and 1,000 mm. Acacia Savannah grass lands support extensive livestock production. Similar conditions prevail on the Katonga Plateau between the Lake

Victoria Region and the Western Uplands, where savannah grasslands are mixed with woodlands.

2.8 The Western Uplands, with an average rainfall of 1,200 mm, support a predominant elephant-grass vegetation with some evergreen forest. The Western Rift, includes the Rwenzori mountain range which averages 5,000 meters. The forest, which once covered the lower slopes, has been destroyed. Forest reserves, national parks and game reserves are found in this region. The South-West Highlands, with an average elevation of 2,500 meters, and with a rainfall of up to 2,000 mm., are dissected by deep valleys, many of which contain papyrus swamps and have been drained for agricultural development. This is the most intensively cultivated landscape in the country. The region includes forest reserves and national parks. Finally, the West Nile Plateau, in the north-western corner of the country, with an average elevation of 1,250 meters, enjoys a mean annual rainfall of more than 1,250 mm.

2.9 **Arable Land.** Uganda's most valuable natural resource is its fertile soils, and arable land, making up 197,000 sq km, or 75 percent of the total land area. It has been estimated that only 30 percent of the cultivable land was utilized in 1991. This masks substantial regional variations in the use of arable land. The size of high potential agricultural land, while not limiting growth for the country as a whole, is a constraint in certain densely populated regions in the south-west and north-west. There is a gradual inter-regional migration from the most densely populated to the less populated regions of good agricultural potential.

2.10 Regional differences in soil conditions and land productivity have resulted in a wide range of smallholder rainfed farming systems. Conditions in much of northern, eastern, and parts of western Uganda, are more suitable for annual crops and the production of livestock, while large segments of southern Uganda and the Lake Victoria region support both annual and perennial crops. The main food crops are matooke (bananas), cassava, sweet potatoes, maize and millet. The major cash crop is coffee. The importance of cotton, (which in the 1960s was greater than coffee), tea and tobacco was significant in the past but, these crops are now rather marginal, albeit increasing. Agricultural land and labor productivity is low. However, cash crop productivity has increased since 1986, due to a return to political stability, a reduction of government intervention in this sector, and increased farm gate prices.

2.11 Information on the extent of land degradation is qualitative and fragmented. It is evident, however, that degradation of cultivated lands is increasing in high population, high rainfall areas, primarily in the southern part of the country. In the medium altitude coffee farming system, as practiced for example on the slopes of Mt. Elgon, soil erosion has reached alarming proportions. Soil fertility is decreasing in the intensive banana, coffee and the annual food crop montane farming systems practiced in the south and south-west.

2.12 The causes of soil erosion and loss of soil fertility are complex. Some areas are naturally vulnerable to soil erosion because of rainfall and the general relief. Deforestation

has added significantly to this vulnerability in parts of the country, notably in the south-west and south-east. More importantly, the traditional farming systems are coming under increasing pressure due to rapid population growth. This has resulted in land fragmentation and shorter fallow periods with negative impacts on soil fertility. Most critically, the majority of farmers have insufficient knowledge of improved farming methods, a situation which in turn reflects the gaps in the agricultural extension system. Hence, crop rotation is seldom practiced and agro-forestry practices are typically not part of the traditional farming systems. The consequence of this fragmented and deteriorating land and the lack of knowledge about improved farming techniques is a perpetuation of the cycle of environmental degradation and poverty. Finally, insecurity in land tenure and lack of basic infrastructure in areas, where land clearing could take place, may in some cases actually slow down the rate of land degradation in densely populated areas.

**2.13 Rangelands.** Uganda's rangelands, occupying an estimated 84,000 sq. km, form a corridor extending from Moroto and Kotido districts in the northeast through Lake Kyoga flat lands to Mbarara and Masaka Districts in the south-west. These lands are supporting a livestock herd, of which 70 percent is in the hands of traditional keepers, while the rest is in commercial ranching. Grazing of largely unimproved cattle is done on a communal basis. Over-grazing, due to heavy stocking, is reported in the Karamoja region and elsewhere. The resulting effects include soil compaction, erosion and lower productivity of the grasslands.

**2.14 Forest Resources.** At the beginning of the century, 45 percent of the land area of Uganda (110,000 sq. km), was covered by forest and woodland. Today, tropical high forests, savannah forests, plantation forests, and montane catchment forests make up about 21 percent, of which about one-third is gazetted as forest reserves. The remaining forests are located primarily around the Lake Victoria and in Mt. Elgon regions with substantial other forest areas at, for example, Maramagambo, Kalinzu and Kasyoha-Kitomi. The substantial loss of vegetative cover has brought about damage to wildlife habitats and a loss in biodiversity. Deforestation has also brought about increased agricultural run off, and there are signs that siltation of rivers is beginning to become a problem in parts of the country. Loss of forests in swamp areas around the large lakes, has meant the loss of the filter for agricultural runoffs, and associated nutrients, from catchments, thereby contributing to the eutrophication of the water bodies.

**2.15** The direct causes of deforestation are land clearing, due to increasing demand for food production and grazing, cutting of trees and woody vegetation (including pit sawing), to meet the increasing demand for fuelwood and building materials, and insufficient planting of new trees and forests. The principal underlying forces include a high population growth, and low increases in agricultural productivity due to the inadequate technology and dissemination thereof. Also, past Government policies on forest development and management have failed to: (i) encourage private sector involvement; (ii) establish stumpage prices that reflect the full value of the wood; (thereby promoting excess and indiscriminate logging); and (iii) involve local communities in the management of forest reserves.

**2.16 Water Resources.** Close to one-fifth of Uganda's surface area is covered by open water in the form of lakes, rivers and wetlands. Five aquifer systems provide for ground water. Hence, water resources are abundant in Uganda. Equally, the quality of available water is regarded as reasonable for consumption by humans, livestock and wildlife. Yet, many urban centers depend on surface waters sources that require treatment before use, and water quality is increasingly impaired by pollution from industrial wastes, poor land management, agro-chemical runoffs and improper sanitation. This situation is exacerbated by the long and often severe dry seasons, when there is little water in many parts of the country. Uganda still does not have a comprehensive legislation on water. There is, however, a water legislation which is in advanced stages of preparation and will include provisions covering water quality and supply.

**2.17 Wetlands.** Wetlands, or swamps, cover about one-tenth of the total land area and include swamp forests, mountain bogs and other areas with impeded drainage. Over the past two decades these areas have increasingly been drained and converted to agricultural land and other uses. This has resulted in loss of water storage, destruction of habitats for wildlife species, loss of aquatic biodiversity, and reduced filtering by wetlands of nutrients and silt. Wetlands and their associated benefits have been lost because agricultural, industrial or urban settlement interests, driven by increased demand for land (to accommodate the need of an expanding population), have been allowed to convert the wetlands in an uncontrolled fashion. However, IUCN is providing technical assistance to the GOU to address issues relating to the coordination and management of wetlands and a policy referred to as "The National Wetlands Management and Conservation Policy" was established in 1994. There remains, also, the need to educate the general public in the important functions performed and products generated by wetlands.

**2.18 Fisheries.** The biological productivity of Uganda's lakes, rivers and streams has resulted in an active fisheries sector, largely, artisanal in nature, and with industrial fishery developing more recently on Lake Victoria. The sector contributes half of the animal protein intake of the people of Uganda, and provides employment and income to a substantial segment of the rural population. Over-fishing is not yet regarded as a major threat to fish populations in Lake Victoria but declining fish yields are reported from Lakes Edward and George.

**2.19 Lake Victoria** contributes about 40 percent to the national fish catch which has averaged 22,000 tons in recent years, some of which is exported although the majority is consumed in the home market. However, environmental degradation in the lake-wide basin poses a threat to the sustainability of fishing. Fishing effort, fueled by an expanding riparian population, improved fishing technology and expanded export markets is continuing to increase while yield per unit effort has leveled off. Of the Lake's more than 400 original species, over half are extinct as a result of predation by the introduction of exotic species (Nile Perch and Nile Tilapia), and other factors. Water quality in the lake is deteriorating as measured by reduced oxygen content resulting from eutrophication. Lastly, the lake, particularly along the Ugandan shores, is increasingly being covered by water hyacinth, the weed having entered the lake through the Kagera river. The heavy weed infestation not only prevents fishermen from accessing landing areas but also

impedes breeding of fish. It also affects other sectors of the economy by: (i) encumbering lake transport and urban water supply intake; (ii) interfering with hydropower production at Owen Falls Dam; and (iii) expanding the habitats for vectors of human diseases, such as malaria and schistosomiasis.

2.20 The major part of the fishery resources which Uganda exploits, are shared with neighboring countries. Management of these resources for maximum sustainable production requires regional cooperation as well as strengthening of national fisheries administration and the involvement of fisher-folk communities in the management of the resources. To this end, the Governments of Kenya, Tanzania and Uganda have agreed to jointly prepare a regional environmental management program for Lake Victoria and to also establish a joint fisheries management organization. Funds from the Global Environment Facility (GEF) have been made available to support program preparation.

2.21 **Wildlife and Biological Diversity.** Due to its specific location in a zone of overlap between the dry East African savannah and the West African rain forest, Uganda possesses a unique variety of habitats and associated species. The country has an extensive system to protect wildlife and biodiversity which includes ten national parks, nine game reserves, twelve controlled hunting areas and five game sanctuaries. However, due to the breakdown of law and order since the 1970s, a significant proportion of Uganda's protected area system deteriorated and severe encroachment has occurred, especially on forest reserves but also on national parks. Encroachment, and poaching of animals, has threatened the forest's animal populations and the viability of many ecosystems. More recently, the status of the National Parks has been stabilized and the majority of the major forest reserves have also been stabilized although continued encroachment is still a problem in the game reserves and the remaining forest reserves. Maintaining biodiversity, however, is also economically important, because of the potentially profitable tourism industry that is largely based on wildlife and natural landscapes.

2.22 **Pollution.** Urban and industrial pollution have not yet assumed serious dimensions in Uganda, however, air and water pollution caused by industrial and mining activities has had a localized impact. The main sources of pollution are generated by the textile and sugar industry, and, particularly by leather tanning and mining activities. Currently, facilities for monitoring and maintaining the quality of water and air are outdated, inadequate or non-existent. Increased problems of urban pollution will emerge as economic activity increases. There is a need to provide a regulatory and incentive framework to monitor and control further pollution developments.

### C. ENVIRONMENTAL MANAGEMENT FRAMEWORK

2.23 Environmental management faces the challenge of reversing the above problems and trends. The rates of deforestation and soil erosion need to be slowed, or stopped, and heavily degraded areas need to be rehabilitated. The sustainable use of the fishery resources of Uganda's lakes need to be secured. The uncontrolled destruction of wetlands around Lake Victoria, and other lakes, needs to be brought under control. Uganda's

biodiversity needs to be safeguarded. The Uganda NEAP study concluded that Government's capacity through policies and institutional arrangements, to address these priorities is extremely limited. It concluded that environmental management in Uganda was essentially *ad hoc* in nature, with inadequate mechanisms to coordinate conflicting interests.

### **Policy Framework and Legislation**

2.24 In the past, the overall policy and legislative framework for environmental management was deficient with respect to coverage, content and enforcement. Laws reflecting environmental policy evolved on a sector-by-sector basis and with little or no concern for coordination and harmonization of sectoral policies and laws. Most of the existing environmental related laws are narrow in scope and fail to cover important environmental resources, such as wetlands. They typically emphasize regulations designed to penalize resource users rather than to offer incentives for promoting compliance. Environmental standards have only been established in a few areas, such as water development and occupational health sectors, and those that are in place, are in need of revision or updating. However, with an Environmental Policy and Institutional Framework in place, there is the opportunity for policies and laws to address important objectives and cross-sectoral environmental issues such as involvement of local communities and beneficiaries in the policy formulation process, or legally binding environmental impact assessment requirements.

2.25 The ability of individual sectoral ministries to effectively promulgate and enforce regulations is restricted. Regulations remain inadequately enforced because the capacity of individual government ministries, or agencies, to monitor compliance and enforce penalties, is severely restricted by the resources available from the Government budget. Also, there is a lack of knowledge of and understanding of environmentally related, sectoral regulations at the district level. While the absence of an effective capacity to enforce existing regulations has contributed to leaving environmental degradation unchecked, the challenge now is to introduce incentives to encourage compliance with environmental standards rather than to enforce regulations through penalties.

### **Present Institutional Arrangements**

2.26 Environmental objectives and concerns need to form part of sectoral policies and programs. Hence, sectoral ministries and agencies have the primary responsibility to implement the public sector's environmental management mandate, be it in the form of enforcing regulations and incentives, undertaking investments in environmental remediation or rehabilitation, or disseminating information to raise the public's environmental awareness. Sectoral ministries and public sector agencies have traditionally been performing the Government's role as manager or user of specific environmental resources; state forestry, hydropower production, being cases in point. Institutional arrangements for environmental management also need to ensure that such sectoral responsibilities are effectively coordinated and that cross-sectoral environmental concerns are adequately addressed.

**2.27 Sector Ministries.** Sectoral responsibilities for environmental management in Uganda involve a multiplicity of ministries and government agencies. The Ministry of Wildlife, Tourism and Antiquities is responsible for wildlife, game parks and tourism and oversees the Uganda National Parks which is a parastatal agency. Planning and management of land use is primarily the responsibility of the Ministry of Lands and Housing. The responsibilities of the Ministry of Agriculture, Animal Industries and Fisheries includes soil conservation, erosion control, pesticides control and the issuance of fishing licenses. The Ministry of Health and Local Government play an important role in setting and enforcing standards on public health. The Ministry of Natural Resources, among other things, is responsible for the management and development of the country's water, forests, energy and mineral resources. In the absence of clear national environmental policies, these sectoral agencies have implemented their sectoral programs without reference to environmental objectives and without a systematic effort to address such objectives through sectoral strategies and programs.

**2.28 Central Coordination.** The functions within the Government to centrally coordinate and monitor environmental management are presently assigned to the Ministry of Natural Resources (MNR), and its Directorate of Environment Protection (DOE), established in 1994, as part of a broad ranging Government restructuring. The DOE is a remnant of the Ministry of Environment Protection, which was established in 1986. The DOE has three departments covering Forestry, Meteorology and Environment Protection. The latter department is organized into four sections dealing with natural resource management, environmental education, monitoring and enforcement, and information and research.

**2.29** The Department of Environment Protection (DEP), like its predecessor (the Ministry of Environment), has been unable to carry out its functions effectively, primarily due to the absence, until recently, of clear national environmental management policy and a regulatory framework that is backed by comprehensive legislation. Other factors have also contributed to the DEP's ineffectiveness. Its position in the public administration hierarchy makes it inherently difficult for it to serve as a focal point for integrating environmental issues into sectoral strategies, coordinating and harmonizing sectoral policies from an environmental perspective, and resolving sectoral conflicts over use of natural resources as and where they arise. MNR's own mandate is both regulatory and developmental in nature. While it is expected to uphold environmental protection interests through regulations and oversight, it is, simultaneously, expected to promote the development and use of such resources. This raises major potential conflicts of interests, particularly in such areas as energy and mineral resource development. In addition to these shortcomings, whilst there are qualified staff, the lack of firm management and inadequate budgetary allocations have exacerbated DEP's ability to carry out its functions and to prepare and direct the implementation of an environmental management strategy. Hence, a separate Secretariat, funded externally, had to be established within MNR, to carry out the preparation of the NEAP.

**2.30** Given this state of affairs, sectoral ministries have performed their environmental functions in a limited and uncoordinated manner. In the absence of a central coordinating



and monitoring function and, because of uncertainty regarding allocation of responsibilities between ministries, environmental planning and remedial actions have been stalled in a number of key areas. For example, while it has been evident for some time that the water hyacinth invasion of Uganda's lakes is causing major problems in a number of sectors (see para. 2.19), a comprehensive action program has yet to be formulated. NEAP proposes a set of institutional arrangements including the establishment of a National Environmental Management Authority (NEMA) designed to strengthen Government's capacity for environmental management, and the proposed project would assist in its implementation.

2.31 Inevitably, as NEMA begins to develop its role, overlaps with the Directorate of Environment Protection will be identified. *A condition of credit effectiveness is that the GOU prepare and adopt an action plan and timetable for actions required to eliminate any overlap or duplication of functions and tasks of the Department of Environment Protection and NEMA (para 6.3).*

2.32 **District Authorities.** The ongoing decentralization program is a major effort to devolve authority and responsibility to local administrations, particularly to the districts. However, successful decentralization will depend on the progress made in creating financial and planning autonomy for the districts. At present, revenues and budget allocations for local investment are almost non-existent and limitation of funds will hamper efforts to tackle environmental problems at the local level. The National Environment Statute provides for the establishment of District Environment Committees (DEC), and the appointment of a District Environment Officer (DEO), both with comprehensive terms of reference aimed at strengthening the ability of the districts to manage environmental issues at the district level. One critical function is to develop, throughout the district, a community awareness of, and a need to address, environmental problems on a continuing basis. Whilst some districts have indeed appointed DEOs and established Environmental Committees, the capacity to plan and implement programs at the district and community levels remains extremely limited and, given the financial constraints mentioned above, the ability of the DEOs to interact with the communities remains very limited, particularly due to lack of transport. One of the functions of the Committees is to establish local bylaws and regulations, towards which a start has been made in some districts, but local capacity to develop them throughout Uganda is not yet sufficient. Although the Committees have wide ranging functions, there is a need to introduce priorities for environmental issues in development planning through integration with sectoral development plans and programs rather than through building a separate and costly environmental structure in each district. The proposed project would provide limited inputs to develop institutional capacity at the district level particularly in interactive planning techniques aimed at improving community participation in natural resource management. Other donors, noticeably USAID, have indicated a strong interest in providing support at the district level.

2.33 **Non-Government Organizations.** A large number of non-government organizations (NGOs), and community-based groups are active in Uganda. Currently over

600 international and local NGOs have been formally registered.<sup>1</sup> Many of them are involved in activities that affect the use of the environmental and natural resources and address a similar theme; i.e., the improved management of protected areas while working with the resident population.

2.34 In terms of international NGOs, Cooperative Assistance and Relief Everywhere (CARE) is implementing the Development Through Conservation Project in and around the Bwindi Impenetrable and Mgahinga National Parks. The World Wildlife Fund (WWF) is implementing the Rwenzori Conservation and Development Project in and around Rwenzori National Park. The African Wildlife Foundation (AWF), is implementing the Lake Mburu National Park Community Conservation project. The Wildlife Conservation Society (WCS), is working in Kibale National Park. The World Conservation Union (IUCN), supports conservation and development projects in and around Kibale and Semliki National Parks and is assisting DEP in developing a wetlands action program. The International Gorilla Conservation Project (a consortium of WWF, AWF and FFPS), is working with Uganda National Parks to protect and conserve the mountain gorilla and develop tourism in the Bwindi Impenetrable and Mgahinga National Parks. Finally, World Learning's Private Volunteer Organization PVO/NGO Natural Resource Management Project is assisting local NGOs and community based organizations to improve both the administrative and technical aspects of their natural resource management programs.

2.35 In addition, many local NGOs are also active. Wildlife Clubs of Uganda is involved in environmental education throughout the country. The Women's Group on Environmental Conservation, the Ugandan Women Tree Planting Movement, the Uganda Forestry Association and JEEP (the Joint Energy and Environment Project), all have significant national presence and a wide variety of environment-related programs.

2.36 The proposed IDA project would capitalize on the extensive network and expertise of the active environmental NGO community in Uganda. Where appropriate, NGOs would be engaged to participate in the planning, training, local capacity building and implementation of the community-based natural resource management component of the project.

### **The Role of Communities and Individuals**

2.37 Environmental management is not the exclusive prerogative of the Government. It importantly involves communities and the citizens of Uganda in their capacity as primary users or managers of land, water and other natural resources. Farmers cultivating soils for food are the primary managers of land. Communities through farmer groups and organizations manage communal land and associated vegetation for grazing and fuelwood production. The ability of communities and farmers to address problems of resource degradation has been constrained by Government policies, insufficient knowledge about

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<sup>1</sup>

In 1990 the government started a process to regulate and register NGOs. However, registration is a complicated process, that is beyond the means of the many small community-based groups.

prudent resource management practices and inadequate access to the necessary support services and inputs. Also, many of the natural resource management problems facing communities require collective action. For example, the rehabilitation of denuded hillsides, or grazing areas, involve externalities and are in the nature of public goods. Individual farmers like to act independently at the household level but need encouragement from, for example, extension services and tax incentives. The proposed project would address several of the above constraints.

2.38 From a broader perspective, the incidence of poverty affects people's ability to manage their environment sustainably. As people lack resources and appropriate technologies, many farmers resort to cultivating steep slopes on erosion-prone hillsides or encroach on the protected areas in order to meet their demands. In short, poverty compels them to destroy the very resources that are necessary to relieve them from hunger, disease and further poverty.

#### **D. NATIONAL ENVIRONMENT ACTION PLAN**

2.39 The NEAP is an action-oriented process initiated and implemented by Government. The NEAP process arose from concerns about the rapidly degrading environment and the need to take immediate and appropriate actions to reverse the current trends and conserve the natural resources for the present and future generations.

##### **National Environment Policy**

2.40 The NEAP is intended to provide a broad framework for integrating environmental considerations into social and economic development planning. The NEAP process has identified, analyzed and is currently prioritizing major environmental problems and opportunities and has developed a comprehensive national strategy for participatory, sustainable development based on sound environmental management. The NEAP package comprises, *inter alia*, a set of document on policy, legislative and institutional reforms needed for effective management of Uganda's natural resources. Additionally an investment program is attached to NEAP, which provides the rationale for investing in environment and natural resource management, the criteria for prioritizing the numerous environmental problems and the issues in the key program areas, and summary of recommended projects.

2.41 Addressing these priorities, the NEAP identifies five environmental issues and areas for action, namely in order of priority (i) capacity building in environmental management; (ii) enhancing resource's (land and water) productivity; (iii) management and use of biodiversity; (iv) environmental education and public awareness; and (v) environmental health and pollution management.

2.42 NEAP defines the public sector's mandate in implementing the policy as inducing users of environment and natural resources in rural and urban areas to utilize resources in a way that support sustainable economic development, in part through conservation of these resources. Interventions to this effect can be grouped into four main categories: (i)

establishment and enforcement of regulations designed to control resource use directly, e.g., through limits on production from forests or fish stocks, pollution of water bodies, or drainage of wetlands. Implementation and enforcement of these regulations must take place at the local level; (ii) incentives and taxation measures, such as increasing stumpage fees to restrict consumption of wood products; (iii) investments by central and local governments (the latter to the extent that they have the capacity and resources), to redress specific environmental problems, e.g., rehabilitation of degraded state forests or public wetlands, construction of sewerage and water treatment facilities; and (iv) dissemination of technical and other information regarding environment and natural resources to raise public awareness of problems and measures needed to address them, together with NGOs and community organizations.

### **Institutional Framework**

2.43 The Government has recognized the inadequacies of the existing institutional structure for environmental management and policy implementation, as discussed above.

2.44 The institutional framework for implementation of NEAP, which was approved by Cabinet and is specified in the National Environment Statute, 1995, involves the establishment of a National Environmental Management Authority (NEMA), as a semi-autonomous agency under the Ministry of Natural Resources, with oversight provided by a Policy Committee made up of ten Ministers and chaired by the Prime Minister. The Chairman of the Board of Directors of NEMA and the Executive Director of NEMA would be ex-officio members of this Policy Committee. Thus, although NEMA is organizationally located in MNR, the membership of the Executive Director of NEMA in the Policy Committee would ensure an independent voice for NEMA at Cabinet level. *Annex 1* describes the key features of the organizational arrangements set out in the National Environment Statute, 1995.

2.45 NEMA would provide the central coordination of national interests on environment, further develop environment policy, enhance the legal and regulatory framework, coordinate and harmonize the sectoral interests and conflicts of other ministries and facilitate the integration of environment concerns into development activities (at all levels), oversee compliance with regulations and standards, and promote environment awareness. An important element of NEMA's work would be horizontal coordination with ministries and other agencies at national level, and vertical coordination with the local (especially district and community), level. NEMA also would establish an outreach program to assist in strengthening the capacity of district administrations for environmental management and of communities to address local natural resource management concerns.

2.46 NEMA is planned to have four divisions, under an Executive Director, (i) Policy, Planning and Legal; (ii) Information and Monitoring; (iii) Education, Awareness and Training; and, (iv) Administration and Finance. A District Coordination Unit will be placed in the Executive Director's Office. Thus NEMA's proposed organization structure will conform to the functions set out in *Annex 2*, as are the responsibilities of the Policy

Committee and Board of Directors. The total staffing would be limited to about 30 higher-level staff.

2.47 The functions of the Policy Committee, as set out in the legislation, are to formulate and coordinate overall environmental policies, taking into account issues raised by the Cabinet and to ensure the smooth implementation of environmental policies and guidelines.

2.48 The Board of Directors of NEMA would be appointed by the Minister, MNR, with the approval of the Policy Committee and it would consist of: (i) representatives of MNR, the Ministries of Agriculture, Animal Industry and Fisheries and of Economic Development; (ii) two representatives of academic and research organizations; (iii) two representatives of local non-governmental organizations; and (iv) two representatives of the private sector. The Executive Director of NEMA would be an ex-officio member of the Board of Directors.

2.49 The functions of the Board of Directors are designed to oversee the operations of NEMA and ensure that they are in line with NEMA's overall strategy. The Board would also review and approve the annual budget and work plan and monitor and evaluate progress against those budgets and plans. Finally, it would formulate personnel, administrative and financial procedures which are detailed in *Annex 2*.

2.50 Thus, although NEMA would be located in the Ministry of Natural Resources, it would be able to operate with a high degree of autonomy and there would be no overlap between MNR's regulatory and developmental functions. Given the location of NEMA in the MNR, with a reporting relationship to the Board of Directors, that implies a high degree of independence and autonomy, it is essential that clear guidelines defining both NEMA's relationship to MNR and to its Board are in place before NEMA is formally established. Guidelines, drawing on the experience with other Authorities in Uganda are being drafted.

### **Environment Legislation**

2.51 The National Policy and Institutional Framework, were approved in 1993 and 1994, respectively. The National Environment Statute, 1995, establishes the institutional, and regulatory framework for environment management.

## E. BANK ASSISTANCE STRATEGY FOR THE ENVIRONMENT

### Lessons from Previous Bank Operations

2.52 The Bank's assistance strategy for environmental management is based on a dialogue with the Government, on earlier lessons from previous operations in Uganda, and in other countries in the region where NEAPs have been prepared and on the global perspective that the Bank has with respect to the environment. Although there have been no previous Bank lending specifically aimed at the environment in Uganda, much of the prior IDA lending for sectoral operations has had a direct impact on the environment (agriculture, forestry). Experience from the Forestry Rehabilitation Project shows the lack of strong public support and widespread participation in the design and implementation, government commitment, and an ineffective institutional framework can lead to severe implementation difficulties. Projects in other countries in the region also demonstrate the need to ensure better programs for environmental training and capacity building within an agreed national policy framework. The Bank's Environmental Strategy Paper for Uganda makes specific recommendations for the Bank to focus on strengthening environmental management and capacity building in Uganda. The Bank's particular global perspective allows it to pursue initiatives that are critical to the world as a whole but which may not be a top priority of the nation and the assistance strategy helps the country deal with the global concerns more easily. An example of this is the project in the Mgahinga and Bwindi Impenetrable Forest Conservation Project, funded through the GEF.

2.53 The project would support the objective of both the Government's development strategy and the Bank's Country Assistance Strategy (CAS) which seek to reduce poverty within a framework of economic stability, and protection of the environment and natural resources. The primary objective of the Bank's Assistance strategy for Uganda is to reduce poverty. The key elements of this strategy are: (i) maximize labor intensive economic growth with the view to maximizing employment and income opportunities; (ii) strengthen economic and social infrastructure; (iii) support human resource development; and (iv) enhance the provision of public services. The strategy includes strong gender and environmental protection aspects. The main thrust of IDA's strategy over the medium term is to support government's efforts to accelerate economic growth. The link between this strategy and environmental problems which this project addresses is sustainability. Sustainable growth and economic development requires that natural resources are used prudently and that environmental problems are addressed at an early stage. Sustainable economic growth also requires adequate human resources and capacity at all levels of government. The development of both these assets are primary objectives of the project.

2.54 **Community Participation.** One of the lessons the Bank has learned is that successful project design and implementation depends on support for the project not only from the central government, but also from the ultimate beneficiaries, or clients. Community participation is achieved through the tapping of local expertise and through the incorporation of views of the local population. Such support will broaden commitment for the project and enhance the chances of successful project implementation. The proposed project would promote participation through an interactive process to

formulate and implement community initiatives to address local natural resource degradation problems.

**2.55 Role of Women.** Women are both victims and perpetrators of natural resource degradation. They supply their households with water and fuelwood, often herd, feed and milk farm animals and make up the majority of the agricultural labor force. As the primary *users* of natural resources women play an important role in the *management* of those natural resources. The project will give special attention to the role of women by strengthening their role in project design and implementation through interactive planning and implementation process.

## F. OTHER DONOR ASSISTANCE

**2.56** Several donors are currently involved in environment projects in Uganda. The Bank's support is designed to comprise part of an integrated comprehensive package of long-term support.

**2.57 USAID.** The Action Program for the Environment (APE), funded by USAID has been designed to improve the sustainability and utilization of Uganda's abundant natural resources. The purpose of APE is to assist Uganda's public and private sectors to manage more effectively, and on a more sustainable basis, its natural resource base in selected areas of the country. The program has two components: (i) policy; and (ii) rehabilitation and resource conservation.

**2.58** The policy component: (i) has supported a national debate and consensus building process through the development of the NEAP, under MNR; and (ii) strengthened the Uganda National Parks' accounting and financial reporting procedures to help the parastatal become the semi-autonomous institution it was meant to be. The component also addresses the protection of areas important for water catchment, soil stabilization, climate regulation and amelioration, medicinal plants, genetic resources, education, research and tourism revenues.

**2.59** The rehabilitation and resources component, through the Grants Management Unit, uses project assistance and local currency counterpart funding to provide support to: (i) PVOs and NGOs for project supporting sustainable resource use; (ii) the National Environment Information Center; (iii) rehabilitation of protected areas; and (iv) environmental impact assessments.

**2.60** The total project cost is estimated at US\$24.0 million, of which US\$5.5 million is committed to the APE project and general support to the NEAP/NEMA process. In addition US\$4.0 million equivalent also supports the NEAP and some forestry activities, with the balance targeted at supporting local NGOs on a grant basis.

**2.61** The proposed project does not duplicate any of the current activities of USAID but rather has been designed to both complement and provide, *inter alia*, a coherent

national and district level framework to coordinate several actual and planned freestanding environment interventions by donors and NGOs.

**2.62 Rationale for IDA Involvement.** The project would support the objectives of both the Government's development strategy and the Bank's **Country Assistance Strategy (CAS)** discussed by the Board on June 1, 1995, which seek to reduce poverty within a framework of economic stability, and support the protection of the environment and natural resources. The primary objective of the Bank's assistance strategy for Uganda is to reduce poverty. The key elements of this strategy are to: (i) maximize labor intensive economic growth with the view to maximizing employment and income opportunities; (ii) strengthen economic and social infrastructure; (iii) support human resource development; and (iv) enhance the provision of public services. The strategy includes strong gender and environmental protection aspects. The main thrust of IDA's strategy over the medium term is to support government's efforts to accelerate economic growth. The link between this strategy and environmental problems which this project addresses is **sustainability**. Sustainable growth and economic development requires that natural resources are used judiciously and that priority environmental problems are addressed at an early stage. Sustainable economic growth also requires adequate human resources and capacity at all levels of government. The development of both these aspects are primary objectives of the project.



### 3. THE PROJECT

#### A. RATIONALE AND OBJECTIVES

3.1 **Rationale.** The project would support the objectives of both the Government's development strategy and the Bank's country assistance strategy which seek to reduce poverty within the framework of economic stability, and protection of the environment and natural resources. This objective would be pursued through support for the implementation of the National Environmental Action Plan (NEAP). It is based on the Government's view that the need to strengthen the institutional capacity for environmental management at the national, district, and local level is the first priority. It is well recognized that sustainability in economic growth in Uganda depends inter-alia on the maintenance of the integrity of environmental processes and conservation of the natural resource base. As policies and actions addressing environmental degradation and protection support growth, they also contribute to the primary development goal of reducing poverty. The project would be the first phase of a long-term program of support required to implement the NEAP.

3.2 **Objectives.** The objectives of the project are to: (i) build a capacity for environment management at national, district, and community levels through the establishment of the National Environmental Management Authority (NEMA); and (ii) strengthen selected districts (oriented toward support for the community component on natural resource management) and initiate a process for communities to address natural resource degradation problems of local concern.

#### B. SUMMARY DESCRIPTION OF THE PROJECT

3.3 The project would support the first five-year phase of NEAP implementation and would consist of two main components. The first would focus directly on capacity building for environmental management at the national level and would support the establishment of NEMA with financing for vehicles and equipment, incremental staff salaries and operational and maintenance costs on a declining basis and provide limited funds for studies. The second would support the creation of an environmental management system that integrates and strengthens links among all levels and sectors of government and non-government sources thereby building the capacity for coordinated planning and management of natural resources at all levels. This component is a phased activity which will concentrate in six focal districts. Objectives will be achieved through three main activities: institutional strengthening; training aimed at capacity building for sustainable environmental management at all levels from national down to parish; and micro-project development and implementation of initiatives aimed directly at ameliorating natural resource degradation problems of local concern.

## C. DETAILED FEATURES OF THE PROJECT

### Institutional Support

3.4 The initial objective of NEMA's new management would be the establishment of a lean and efficient organization. This would involve: (i) recruiting approximately 30 high caliber staff; (ii) establishing effective management, financial and personnel systems; (iii) procuring vehicles and equipment; and (v) carrying out a training needs assessment. This component is estimated to cost US\$8.9 million and would cover the costs of vehicles, office equipment and furniture and salaries of the senior executives and front office and support staff. Provision would also be made for operating and maintenance costs.

3.5 The small front office of NEMA would be responsible, under the Executive Director, for the overall development of NEMA's activities and will be particularly concerned with coordinating the county's environmental programs at the national and district levels. A District Coordination Unit would be established with the key objective of supplying the link from NEMA to the districts. Overall, during the first year of project implementation, it would be responsible for completing the staff recruitment, overseeing the establishment of personnel, financial, management and monitoring systems. Of major importance, given that the actual skills of the staff to be recruited are not known, would be the completion of a training needs assessment and the finalization of a training plan. During the latter part of the year the front office would oversee the completion of the Annual Work Plan and Budget for FY97. The estimated cost of this component is US\$3.5 million, including not just support for the front office, but also the logistical support for the four operating divisions.

3.6 Once established, the objective of the Policy, Planning and Legal Division would be to establish itself as the focal point for taking the initiative and coordinating environmental legislation. This would involve the division in: (i) establishing environmental liaison units (ELUs), in sectoral ministries; (ii) reviewing sectoral environmental policies in relation to investment plans; (iii) reviewing the National Environment Statute and beginning to draft regulations; (iv) taking the initiative in finalizing sectoral legislation and guiding it into law; (v) developing Environmental Impact Assessment guidelines; and (vi) carrying out a training needs assessment in the sectoral ministries and introducing training programs. Specific monitorable outputs during the first year would be the establishment of ELUs in sectoral ministries with associated training plans, and finalizing guidelines for the Environmental Impact Assessments. This component is estimated to cost US\$0.6 million and would cover the incremental costs of staff salaries and allowances on a declining basis and 120 months of local specialist consultancies.

3.7 The Information and Monitoring Division would have as its objective, the development of a comprehensive information system and methodologies for environmental monitoring. During its initial phase of development it would: (i) develop indicators for environmental monitoring based on standard formats; (ii) establish database

with a cataloging system with an interactive user interface; (iii) establish linkages to sectoral ministries and establish an Environmental Information Systems (EIS); (iv) start a program of EIS's assessment activities on a pilot basis; and (v) prepare the National State of the Environment Report during PY1. Monitorable outputs during PY1 would include: (i) establishing formats for environmental data collection; (ii) establishing horizontal linkages to key line agencies and academia; and (iii) establishing data bases, including identifying sector and technical data base needs and the resources required. This component is estimated to cost US\$3.3 million and would support the procurement of specialized computer equipment and software, salaries of the staff and the development of sectoral linkages.

3.8 The Education, Awareness and Training Division would have three objectives: (i) promoting the development of environmental education into the formal, non-formal, and informal education system; (ii) starting a program of increasing community awareness of environmental issues; and (iii) developing environmental skills in line institutions, the private sector and communities. Its key activities would include, during the first year: (i) establishing a national Curriculum Development Committee; (ii) organizing NEAP/NEMA Workshops for the line ministries; (iii) organizing training in environmental impact statements; and (iv) conducting training needs assessments in six pilot districts. The estimated cost is US\$0.6 million to cover workshops, computer equipment, incremental staff salaries and allowances on a declining basis.

3.9 The Finance and Administration Division would have the objective of ensuring that NEMA would be established with the minimum number of staff necessary to carry out its mandate. Its main activities would be to: (i) develop the initial management, financial and personnel policies into systems that can be used to monitor performance; (ii) report regularly to the Executive Director on actual progress against work plans; and (iii) develop an exception reporting system. In addition, over time, the division would develop comprehensive monitoring and evaluation and a management information system, and produce quarterly reports for the Management Board and the Policy Committee. This component is estimated to cost US\$0.4 million and would cover incremental staff salaries and allowances on a declining basis.

3.10 NEMA's detailed first year and overall work plans are included as *Annex 3*.

### **Environmental and Natural Resource Degradation Studies**

3.11 To design and find appropriate solutions to the key environmental problems facing Uganda, it was recognized that there would be a need to gain a better understanding of the nature and magnitude of these problems. The studies component would provide the basis for identifying and understanding the location, nature and severity of the most pressing environmental problems identified during the NEAP process including soil and rangeland degradation, fuelwood shortages, loss of biodiversity and deforestation. For each problem area, project activities would include an appropriate combination and sequencing of review of existing studies, commissioning of additional

studies and the design of a permanent and systematic effort to monitor environmental and natural resource degradation.

3.12 The objective of these studies would be to document and monitor the processes of environmental degradation; identify the underlying causes; predict economic consequences of such continued degradation; and design remedial solutions to address the problems in both the short and long term. These studies would also contribute towards setting up a national environmental monitoring system which would continue to monitor the state of environment in collaboration with the national environmental information system to be established under NEMA. A provision of US\$0.5 million is made for this component.

3.13 **Preparation.** Preparation of this overall institutional component was carried out by two teams made up of staff who had worked on the NEAP, with other staff seconded from government and representatives from academia. The team responsible for the institutional work on NEMA was supported by an international expert, funded by UNDP. Two advisors, under the APE program funded by USAID, also assisted in preparation. Their focus was to establish NEMA with the minimum but essential capacity necessary to carry out the highest priority activities *Annex 4* lists the studies identified during preparation.

### **District and Community Level Environmental Capacity Building**

3.14 The successful implementation of NEAP rests on translating its policies into actions at the community level as appropriately supported by district planning units and technical staff. The goals of the district and community capacity building component are to build capacity for environmental management at the district and other local government levels (sub-county and parish) and initiate a process for communities to address natural resource degradation problems. The specific objectives of the component are to: (i) ensure integrated and multi-sectoral planning for the environment at the district and local community levels; (ii) enable local people to freely participate in environmental decisions, planning and implementation; (iii) ensure clear linkages between the various levels of local government and the national level for environmental management; (iv) ensure the collection and dissemination of environmental information among sectors and between different levels of government; (v) ensure adequate information and technical backstop from the line ministries to the local levels.

3.15 The project will support the creation of an environmental management system that integrates and strengthens links among all levels and sectors of government, and non government organizations thereby building the capacity for coordinated planning, policy formulation, and management of natural resources at all levels.

3.16 This component is a phased activity which will concentrate on capacity building in six focal districts. In the first year of the project support to three districts will be established. In year two, activities in the remaining three districts will be initiated. It is anticipated that the project will carry out its program for capacity building in sixty-six sub-counties in the six focal districts and most of the parishes in the sub-county. The

component will not only increase capacity for planning but will identify specific micro-projects at parish level to support community initiatives in natural resource management. This component links the policy efforts of NEMA to community level initiatives and will be coordinated by the NEMA District Coordination Unit to ensure implementation and monitoring of the national environmental policy.

3.17 There are three main activities in this component: (i) capacity building at the district and sub-county level for environmental management; (ii) training of district and community personnel in environmental management technologies; and (iii) identification and funding of micro-projects identified by the district environmental management system process. These activities are linked by community interactive planning process i.e., Participatory Rural Appraisal (PRA) that will identify micro-projects and enable local governments to base their development and financial plans on community identified needs and priorities. Detailed descriptions of the specific activities and programs are provided below. The cost of this component amounts to US\$3.5 million.

3.18 **Institutional Capacity Building:** District staff will be responsible for capacity building at the sub-county level with the ultimate goal to base district development plans on sub-county plans. As the district will be providing the training and support to sub-county and parish level planning, and most districts do not have the necessary facilities for the District Environmental Officer (DEO) and the District Technical Planning Committee (DTPC), the project will provide the districts with adequate equipment, supplies and funds to establish offices for the District Environmental Officer. The goal is to increase the district's capacity to operationalize the district environmental management system. These facilities are the prerequisites to district involvement at the sub-county and parish level and includes support for environmental capacity building activities down to the parish level (and the identification of micro-projects).

3.19 **District and Community Training:** There is a need to provide training to various levels of government to increase the capacity for sustainable natural resource management. A number of fundamental training requirements must be met to equip the districts with the necessary skills to consider environmental issues in overall development plans, and to develop District Environmental Action Plans (DEAP). Moreover, training is essential to ensure that the environmental management process supported by this project is sustainable and that ultimately the districts will be able to continue their efforts using their own resources.

3.20 Training packages have been developed to target the district and sub-county level, with participation from the parish. Some of the required training programs will be conducted by NEMA staff. Others which are outside NEMA's scope or capacity will be contracted. The following list, while not exhaustive, represents the types of training the project will support: Overview of National Environmental Policies, Legislation and Institutional Structures at District and National Level; Environmental Information Systems; Environmental Education; Project Design and Management; (PRA), etc. Details of the training packages are given in Chapter 4.

**3.21 Community Micro-projects:** The outcome or product of the interactive planning process will be the development of parish level environmental action plans which identify priorities and specific activities related to sustainable environmental management. The process will also generate community micro-projects developed by the parishes with assistance from the district facilitator and the sub-county Local Environmental Committee. These parish projects will be integrated into the sub-county development plan and the environmental action plan. The sub-county will then determine which proposals would be suitable for funding under this component and submit them through the district to NEMA.

**3.22 Criteria:** The criteria for the project eligibility is defined to encompass initiatives which address community natural resource degradation problems. Micro-projects will be evaluated according to the following criteria and conditions. It is expected that the District Facilitator will orient the communities during the PRA process to the guidelines and criteria and also assists the communities in developing proposals which give attention to these criteria.

**3.23** The general criteria include the following: (i) micro-projects should address priority environmental problems which have been clearly identified by the community; (ii) benefits of the project should be broadly targeted to the community; (iii) projects must demonstrate a high degree of community initiative and ownership including willingness to pay in cash, kind or labor for a meaningful degree of project costs, not less than 30 percent of the project investment; (iv) projects must be technically feasible and economically beneficial; and (v) micro-projects should be generated from a sub-county development plan or environmental action plan. Any project that tangibly increases the sustainable management of natural resources will be eligible for funding. The specific criteria defined through five categories of eligible activities including measures to address the following: (i) soil erosion; (ii) falling soil fertility; (iii) biomass (fuel and fodder) scarcity; (iv) moisture and water scarcity; and (v) activities which positively affect the conservation of natural resources.

**3.24** Possible activities include agro-forestry promotion and parish level nurseries; tree plantations and field borders on common lands; homesteads and farm wood lots; repair and reinforcement of terraces; bunding; gully treatments; strip cropping and contour cultivation; stream and spring protection; wetlands protection and harnessing; water harvesting; valley dams; fish ponds; bio-mass focused cropping; organic recycling; inter-cropping with legumes and rotations.

**3.25 Funding:** The main objective of this micro-project funding is to assist in the implementation of the environmental planning process, specifically at the parish level. The total funds available under this micro-project component have been calculated by allowing for US\$10,000 per sub-county at the end of each planning cycle, i.e., every two years, details are given in Chapter 4. In this way, the micro-project funds are directly linked to supporting the process for establishing an environmental management system and initiating activities directly at the community level. This figure is illustrative as the actual amount awarded to each sub-county would vary according to its absorptive

capacity, feasibility of proposals, and assurance that they had completed the planning process.

**3.26 Preparation:** Project preparation of the district and community level environmental capacity building component was supported by two teams which worked in the Arua and Kabale districts. Since the focus of the IDA financed proposed project is on: (i) capacity building for environmental management; and (ii) financing community based natural resource management micro-projects, the majority of the projects identified during project preparation fall outside the scope of the present project. The projects are however listed in *Annex 5*.

#### D. PROJECT COST

**3.27** Total project cost is estimated at US\$15.2 million (Table 1). The foreign exchange component of the project is estimated at US\$5.0 million, which is equal to 33 percent of the total project cost. Investment costs amount to 77 percent and recurrent costs to 23 percent of the total project cost. Expected price increases over the project period (price contingencies) were computed using the Bank's projections for international and local inflation. Under the liberalized foreign exchange regime, the Uganda shilling is expected to be adjusted in accordance with domestic and international price movements. Physical contingencies of 10 percent on all items are included in project cost. A tax rate of 10 percent has been applied to local expenditures, excluding the salaries of the NEMA staff. An average duty of 25% has been applied to imported items. The table below summarizes the project costs by component. Detailed project costs are given in *Annex 6*.

**Table 1: Project Costs (US\$ Millions)**

Component	Local	Foreign	Total	% Foreign Exchange	Percent Base Cost
<b>Institutional Component</b>					
NEMA Front Office	2.2	1.3	3.5	36	27
Policy, Planning and Legal	0.6	-	0.6	-	4
Information and Monitoring	2.1	1.2	3.3	42	25
Education, Awareness and Training	0.6	-	0.6	2	5
Finance and Administration	0.4	-	0.4	-	3
Studies	0.1	0.4	0.5	80	4
<b>Sub-Total</b>	<b>6.0</b>	<b>2.9</b>	<b>8.9</b>	<b>32</b>	<b>68</b>
<b>District and Community Development</b>					
Capacity Building	0.8	0.3	1.1	25	8
District and Comm. Training	0.6	0.6	1.2	51	9
Micro-Projects	1.0	0.2	1.2	18	9
<b>Sub-Total</b>	<b>2.4</b>	<b>1.1</b>	<b>3.5</b>	<b>32</b>	<b>26</b>
PPF	0.3	0.4	0.7	57	6
<b>Total Base Cost</b>	<b>8.7</b>	<b>4.4</b>	<b>13.1</b>	<b>32</b>	<b>100</b>
Physical Cont.	0.8	0.4	1.2	32	10
Price Cont.	0.7	0.3	1.0	27	8
<b>Total Project Cost</b>	<b>10.2</b>	<b>5.0</b>	<b>15.2</b>	<b>33</b>	<b>118</b>

<sup>a</sup> Totals may not add up due to rounding.

### E. PROJECT FINANCING PLAN

3.28 The proposed financing plan would include funds provided by IDA and the Government of Uganda. The IDA credit would finance US\$11.8 million equivalent (78 percent) of total project cost, while the Government would finance US\$1.8 net of taxes (13 percent) or US\$3.4 million gross (22 percent).

3.29 The IDA Credit would cover 100 percent of the project foreign exchange costs and 67 percent of local cost (grants from other donors may lower this amount) and the Government's contribution would cover the remaining 33 percent of local cost. IDA would finance 51 percent of the incremental recurrent cost on a declining basis, which would amount to about US\$1.8 million over the five-year period. The financing plan is presented in Table below.

**Table 2: Financing Plan (US\$ Million)**

	Local	Foreign	Total
IDA	6.8	5.0	11.8
Government of Uganda	3.4	-	3.4
<b>Total</b>	<b>10.2</b>	<b>5.0</b>	<b>15.2</b>

3.30 Total incremental recurrent cost of the project is substantially reduced in the first three project years since NEMA salaries are specified as investment. The justification is that the NEMA salaries will provide resources to set up such products as an information system and a legal framework, which are investments. This specification will ease the Government's burden to provide its contribution in the early project years since the investments are financed by IDA on a declining basis. *A condition of effectiveness is that the FY95/96 national budget contains provision for funding NEMA in line with NEMA's annual work plan and budget (para 6.3).* This would amount to US\$0.37 million gross. Succeeding phases of NEAP implementation are likely to require continued donor funding, with the Government's contribution gradually rising to 100 percent of recurrent cost.

### F. PROCUREMENT

3.31 Procurement of all goods financed by IDA would be in accordance with the Guidelines for Procurement under IBRD Loans and IDA Credits (Jan. 1995) and *assurances were received at Negotiations that procurement of the goods, works, and consultant services required for the project and to be financed out of the proceeds of the Credit would be undertaken in accordance with procedures satisfactory to IDA (para. 6.1).* Consultants would be hired in accordance with the World Bank Guidelines according to the Use of Consultants by World Bank Borrowers and by the World Bank as an Executing Agency. In the case of goods and services financed by bilateral donors, procurement would be according to the procedures and guidelines of these agencies. The four major procurement categories for this project are civil works, goods, technical assistance and training, and miscellaneous. Procurement arrangements for these



categories are described below. Procurement category costs financed by IDA are in parentheses. Planned procurement packages are given in *Annex 7*.

**Table 3: Summary of Proposed Procurement Arrangements (US\$ Million)**

Category	Procurement Method				
	ICB	NCB	Other	NIF	Total
1. Civil Works	-	0.4 (0.3)	-	-	0.4 (0.3)
2. Goods					
Vehicles	0.6 (0.4)	-	-	-	0.6 (0.4)
Office Equipment	1.2 (0.9)	-	0.2 (0.2)	-	1.4 (1.1)
Software materials, supplies	-	0.6 (0.4)	0.5 (0.4)	-	1.1 (0.8)
3. Training and T.A.					
Training	-	-	2.0 (2.0)	-	2.0 (2.0)
Technical Assistance	-	-	1.0 (1.0)	-	1.0 (1.0)
4. Miscellaneous					
Incremental Staff	-	-	3.2 (2.4)	0.5 (-)	3.7 (2.4)
Operations & Maintenance		-	2.7 (1.8)	0.2 (-)	2.9 (1.8)
Micro-projects	-	-	1.4 (1.3)	-	1.4 (1.3)
PPF	-	0.1 (0.1)	0.6 (0.6)	-	0.7 (0.7)
Total Procurement Costs	1.8 (1.3)	1.1 (0.8)	11.6 (9.7)	0.7 (-)	15.2 (11.8)

- Notes: 1. Figures in parentheses are the respective amounts financed by IDA.  
2. "Other" comprises non-ICB/NCB and non-NIF (non-IDA funded) procurement.  
3. Category totals include duties and taxes  
4. Totals may not add up exactly due to rounding.

3.32 **Civil Works (US\$0.3 million).** A small amount of civil works is planned for District level office rehabilitation. Because six District offices will be covered by this amount, each package is expected to be less than US\$100,000 which would be suitable for NCB procurement.

3.33 **Goods (US\$2.3 million): Vehicles (US\$0.4 million), Office Equipment (US\$1.1 million) and Software, Materials and Supplies (US\$0.8 million).** Vehicles will be procured for NEMA staff for travel to the Districts as well as in-Kampala travel. One vehicle will also be procured for each District. Vehicles will be grouped into lots of over US\$100,000 for ICB procurement. Office equipment will be for NEMA and District offices to carry out their designated functions and will consist of usual office hardware, such as computers, copiers, printers, fax machines and peripherals. Some specialized equipment will also be procured for the information and monitoring division. Most office equipment will be grouped into packages in excess of US\$100,000 (a total of about US\$0.9 million) for ICB, and a smaller proportion (US\$0.2 million) may be procured locally as needs arise, by local shopping procedures for each contract below US\$30,000. Materials and supplies procurement with estimated contracts at US\$30,000 or more, but less than US\$100,000 aggregating not more than US\$0.4 million will be by NCB. Remaining contracts will be less than US\$30,000 each aggregating not more than US\$0.4 million and will be by local shopping procedures.

3.34 **Training (US\$2.0 million) and Technical Assistance (US\$1.0 million).** Training is comprised of training for NEMA staff, training of trainers for the Districts, a comprehensive training program in the Districts, and the curriculum development and training activities of the Training and Awareness division of NEMA. Procurement will be according to the recruitment plan for NEMA and the training plans for NEMA and the Districts and will require post-review (see para 3.36). Technical assistance will include a studies sub-component (US\$0.5 million) which will finance a series of smaller studies. Technical support will also be provided to the NEIC sectoral linkages effort and to local capacity building. These consulting contracts will be by short list procedures.

3.35 **Miscellaneous (US\$6.2 million): Incremental Staff(US\$2.4 million), Operations & Maintenance (US\$1.8 million), Micro-projects (US\$1.3 million), and PPF (US\$0.7 million).** Incremental staff refers to the personnel that must be recruited for NEMA. As mentioned, IDA will fund a declining share of this category as is also the case with O & M. O & M will be mainly for vehicles (US\$1.2 million), with an amount (US\$0.4) for office expenses related to horizontal sectoral linkages of NEMA with other agencies. Operations & Maintenance expenditures would be through local shopping and would follow procedures acceptable to IDA. Relevant documents would be attached to statements of expenditure and be available for review by external auditors and IDA supervision missions. Micro-projects will include such items as tools, seedlings, and building materials for nurseries. Thus, the procurement will be split mainly between civil works and goods. Because the micro-projects are not identified, this split is not yet known and the sub-category micro-projects is placed under miscellaneous. However, these items will be procured locally under procedures acceptable to IDA through local shopping as each contract will be below US\$30,000. Finally, the PPF has US\$0.1 million

of NCB procurement which is for vehicles, with the rest of the PPF funds spent on local procurement. Thus far, US\$308,000 has been spent on vehicles and on local and international consultants. A summary of activities carried out during the project preparation is given in *Annex 8* and of the specific PPF expenditures in *Annex 9*.

**3.36 Review Requirements.** Contracts for goods and civil works estimated at US\$100,000 or more will be subject to IDA's prior review. Contracts below this amount will be subject to post review on a selective basis (one in five). Contracts with consulting firms and with individuals in excess of US\$100,000 and US\$50,000, respectively, will be subject to IDA's prior review.

## G. DISBURSEMENT

**3.37** The IDA Credit is expected to become effective on September 1, 1995 and would be disbursed as shown in Table 4. The project is designed to be implemented over a period of five years. Taking into consideration the historical disbursement experience in Uganda and the pilot nature of the community component, the disbursement schedule requires flexibility. Setting the completion date at December 31, 2000, helps achieve this flexibility. If PPF disbursements in FY94 are included, the Credit disburses over five and a half years. The present project can disburse relatively rapidly because: (i) procurement under ICB is limited due to the relatively small purchases of vehicles, equipment and materials; (ii) the emphasis on development of management skills; (iii) investments under the community component are small and implemented at the local level; and (iv) the project is mainly comprised of local costs.

**Table 4: Estimated IDA Disbursements (US\$ Million)**

<b>IDA Fiscal Year</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Annual	2.2	2.7	2.3	2.0	1.8	0.8
Cumulative	2.2	4.9	7.2	9.2	11.0	11.8

**3.38** Disbursements would be made against standard IDA documentation with the following exceptions for which certified Statements of Expenditures (SOEs) would be used: (i) contracts for goods, works and consultants services (firms) costing less than US\$100,000 equivalent; (ii) contracts for consultant services (individuals) costing less than US\$50,000 equivalent; (iii) all local training courses; (iv) in-country seminars; (v) all operating and maintenance expenditures; and (vi) natural resource management micro-projects. Documentation supporting SOE claims will be kept at NEMA and be made available for audits and review by Bank mission. Table 5 summarizes the withdrawal of proceeds of the credit.

**Table 5: Withdrawal of Proceeds of the Credit  
(US\$ Million)**

Category	Amount	% of Expenditures
1. Civil works	0.3	100 % of foreign expenditures and 95 % of local expenditures
2. Vehicles	0.4	100 % of foreign expenditures and 95% of local expenditures
3. Office Equipment	0.9	100 % of foreign expenditures and 90% of local expenditures
4. Materials and Supplies	0.7	100 % of foreign expenditures and 90% of local expenditures
5. Training and T.A.	2.6	100 %
6. Incremental Staff	2.0	65 % of local expenditures
7. Operations & Maintenance	1.5	100 % of foreign costs plus 55 percent of local expenditures
8. Micro-projects	1.1	95%
9. PPF	0.7	100 %
10. Unallocated	1.6	
TOTAL	11.8	

Note: All amounts and percentages are exclusive of taxes. The Unallocated category is equal to the sum of physical and price contingencies which have been taken out of the amounts for the other categories.

**3.39 Special Account** To facilitate project implementation and reduce the number of withdrawal applications, NEMA would open a Special Account at a commercial bank on terms and conditions acceptable to IDA. An authorized allocation of US\$650,000 would be withdrawn from the Credit and deposited in the Special Account, which will be replenished monthly on the basis of documentary evidence provided to IDA of eligible payments made from the account for goods and services required for the Project. Wherever possible, withdrawal applications would be aggregated in amounts of not less than US\$50,000. *Assurances were received at Negotiations that disbursement arrangements would be satisfactory to IDA, a Special Account would be opened at a commercial bank, (para.6.1).* NEMA would retain all supporting documents and make them available for review by IDA supervision missions and external, auditors. NEMA

would also be responsible for the preparation and submission of withdrawal applications to IDA.

*3.40 Assurances were received at negotiations that GOU would set up a Project Account for NEMA disbursements from the Government's contribution (para 6.1). Amounts equal to the estimated average government contribution for one month would be deposited in the account at least one month prior to the beginning of each month. Evidence that the GOU had established a Project Account and had deposited its share of funding representing three month's operating expenses (US\$90,000 equivalent) is a condition of Effectiveness (para 6.3).*



## 4. PROJECT ORGANIZATION AND IMPLEMENTATION

### A. INTRODUCTION

4.1 NEMA will be responsible for implementing the project with proceeds of the credit being channelled to NEMA under a Project Agreement. NEMA would assist the line ministries and districts to implement their respective project activities. Maximum flexibility would be maintained during project implementation, to ensure that NEMA's phased expansion of capacity responds to environment management priorities, as these may vary over time, and that community natural resource management initiatives are adapted to accumulating experience. Therefore the Annual Work Plan (*Annex 3*) must be considered as indicative only. Effective coordination among the many entities concerned with the environment also would be essential, and thus the importance of the horizontal and vertical linkages built into the design of the institutional component. Coordination would be facilitated through regular meetings of NEMA's Policy Committee and Technical Committees, strengthened through meetings with sector ministries and districts.

4.2 USAID has supported some start up of NEMA through its on-going APE program. This support comprises six activities: (i) completion of the NEAP process by assisting the NEAP Secretariat to incorporate the comments of the National Resistance Council into the major NEAP documents, including the National Environmental Management Policy, the Environmental Investment Program and the Environmental Management Institutional Framework and the NEAP; (ii) assisting the NEAP Secretariat to develop a proposal for submission to USAID to provide bridge funding to NEAP/NEMA pending the processing of this proposed project; (iii) finalizing the key NEMA documents necessary for the establishment of NEMA. This documentation includes conditions of service, an administration manual, position descriptions and a manual on internal organization and functions; (iv) carrying out a training needs assessment and developing training programs for the core staff; (v) holding a team building workshop focusing on improving core management skills; (vi) developing a capacity to produce quality newsletters on NEAP activities and environmental awareness generally. *A condition of effectiveness would be that a rudimentary structure of NEMA consisting of the following key NEMA staff, Executive Director, Deputy Executive Director, and the directors of the four divisions of NEMA, would have been appointed (para 6.3).*

4.3 The GOU would conduct a Project Launch Workshop during the transition phase, in which representatives of all implementing agencies would participate and which would be aimed at orientation on the design of the NEMA, its functions, and a review of implementation procedures. The NEAP/NEMA Secretariat has drafted the key components of a Project Implementation Plan which brings together the salient features

of the USAID support and the implementation procedures for the proposed IDA project. *It would be a condition of effectiveness that the Project Implementation Plan would be finalized (para 6.3).*

### **Institutional Support**

Institutional Component - NEMA

**4.4 National Environment Management Authority.** The proposed project would follow-on the initial work of establishing NEMA by strengthening the horizontal linkages with the five key sector ministries, involving the development of the ministry's capacity for environmental management, established as part of NEMA start-up, and developing the vertical linkages with the six priority districts. In addition, priority NEMA programs such as enhancement of the legislative/regulatory framework and environment impact assessment, as well as initial strengthening of the environment information system, would be initiated, focusing on a few, non-conflictive tasks. NEMA has already drafted an Annual Work Plan (AWP), which contains detailed plans for the establishment of the Authority and defines the anticipated outputs for each of the four divisions over PY1. This is given in *Annex 3* and detailed information is included in the Project Implementation Manual. NEMA has also drafted an outline Work Plan for the following four years. This will form the basis for the following year's AWP, which will be submitted to IDA no later than two months before the start of the new fiscal year. *Assurances were received at Negotiations that NEMA would prepare an Annual Work Plan including a budget, and training plan, to be approved by the Management Board, and submitted to IDA for review and approval no later than April 30, each year (para. 6.1).*

**4.5** During the first year of project implementation (95/96), the first-priority activities would be expanded and second-priority activities would be initiated. Work on revising sectoral legislation and regulations to reconcile them with the new umbrella Environment Law would continue with the key ministries. Guidelines for environmental impact assessments would be completed in coordination with the sector ministries (particularly the key ministries), and implementation of the guidelines would be initiated. Horizontal and vertical linkages of the environment information network would be introduced. The environmental economics and environmental awareness programs would be launched. A particular emphasis would be on the expansion of the outreach program to support district environment management and the community natural resource management component.

**4.6** Follow-up workshops would be held once a year to assess implementation to date and make necessary adjustments in the Operational Plan. *Assurances were received at Negotiations that an annual workshop would be held to assess progress and agree on any adjustments needed (para. 6.1)* NEMA would utilize computerized project management (CPA) to facilitate monitoring and modification of the multiple project activities. NEMA would prepare an Annual Work Plan including a budget, to be approved by the Board of Directors of NEMA, and submitted to IDA for review and approval no later than April 30 each year. *Assurances to this effect were received at Negotiations (para. 6.1).* GOU and



the donors would undertake a mid-term review of the project at the start of the third year of implementation.

### **Degradation Studies**

4.7 The State of the Environment Report, prepared by the National Environment Information Center in collaboration with the NEAP Secretariat, identifies a number of key natural resource degradation problems. These include: soil erosion, transformation from shifting to more continuous cultivation, soil fertility problems, rangeland degradation, fuelwood shortages, loss of biodiversity, and deforestation.

4.8 To design remedial actions and keep policy makers informed it is essential to gain a better understanding of the location, nature, and severity of these problems. What is, for example, the extent of soil erosion? Does land go out of production? Has soil structure and fertility deteriorated? In the case of deforestation, what is the sustainability of the resulting farming system? What forest areas are safe for agricultural expansion? Answers to these and similar questions require understanding of the processes and consequences of environmental degradation over time, and the capacity to monitor and evaluate these changes.

4.9 The proposed component for assessing and monitoring environmental degradation will provide the basis for a greater understanding of the environmental problems and their consequences. It will also help develop the capacity to monitor and evaluate environmental changes and propose policy actions. The component would be undertaken in three stages and would focus on the identified problems and problem areas.

- **Stage 1.** An attempt would be made to identify studies and material that would allow a determination of change in land use, soil and vegetative characteristics. It is expected that there will be considerable gaps in the available data, nevertheless, the identification and analysis of studies may allow a quick first attempt beyond a subjective and often unreliable assessment of the severity and nature of the identified problems.
- **Stage 2.** Additional studies that fill the identified gaps and also repeat historical investigations would be commissioned and managed through NEMA by the Information Systems Unit. These studies would provide the basis for the analysis and would broaden the chances of measuring change and degradation.
- **Stage 3.** The final stage would provide for the design of a permanent and systematic effort to monitor environmental and natural resources degradation. This monitoring system would be the core of the Environmental Information System established under NEMA and would provide baseline data for future analysis.

4.10 NEMA would administer a fund to commission the proposed studies. Funds would be provided both for the conduct of the studies and for some marginal institutional strengthening.

### **B. DISTRICT AND COMMUNITY LEVEL ENVIRONMENTAL CAPACITY BUILDING**

4.11 The district and community component will involve capacity building activities at all levels of local government; district, sub-county, and parish. This component links the policy efforts of NEMA to community level initiatives and will be coordinated in the NEMA District Coordination Unit to ensure implementation and monitoring of the national environmental policy.

4.12 There are three main activities supported by this component: (i) institutional capacity building at the district and sub-county level for environmental management; (ii) training of district and community personnel in environmental management technologies; and (iii) identification and funding of micro-projects identified by the district environmental management system process.

4.13 **Institutional Capacity Building:** As the districts often do not have the necessary facilities for the District Environmental Officer (DEO) and the District Technical Planning Committee (DTPC), assistance will be provided to the district to increase their capability to operationalize the district environmental management system. These facilities are the prerequisites to district involvement at the sub-county and parish level. District staff will be responsible for capacity building at the sub-county level with the ultimate goal to base district development plans on sub-county plans. As the district will be providing the training and support to sub-county and parish level planning, the project will provide adequate equipment, supplies and funds to establish offices for the DEO. This includes support for environmental capacity building activities down to the parish level (and the identification of micro-projects).

4.14 During year one of project implementation in each district, the project will provide basic equipment and supplies to facilitate the capacity building component. This support will include (i) bicycles, vehicles and vehicle maintenance to facilitate training and interactive planning activities at the parish and sub-county levels; (ii) renovation of offices at district and sub-county headquarters; (iii) travel costs for district personnel; and (iv) computers and basic office equipment and supplies for the district and sub-county.

4.15 Assistance to the districts will not only include training workshops or seminars on specific subjects (EIAs, information systems, etc.) but also hands on technical assistance from NEMA staff. Technical assistance will be in the form of site visits to districts for specific assistance (integrating sectoral plans in the DTPC, incentive identification, etc.) and in the formulation of guidelines on specific issues. Funds for external regional training for district level officials will also be provided.

**4.16 Training:** The training program in this component has been designed as four discrete yet complementary packages; two targeted at the district level and two at the sub-county level. Provided below is a description of each of the proposed packages..

**4.17 District Training Program:** The training activities to be undertaken for building capacity at the district level for environmental management are divided into two separate packages; District Initiation Package, and District Follow-on Package. The initial package includes training necessary to establish the management/planning process at the district level. Specific training includes: Overview on National Environmental Policy, Legislation, NEAP and other Guidelines and Institutional Structures at District and National Levels; Environmental Information Systems; PRA; Basic Computer training; Project Design and Management; General Environmental Management; and Environmental Education. This training is a prerequisite to capacity building at the sub-county level since the sub-county training will be done by district officials.

**4.18** Subsequent to the initial package provided to each district in the first year of project implementation, each district will receive an annual follow-on training for the duration of the project. Future training programs will be identified according to a needs assessment and increasing skills to establish the planning process. Follow-on training subjects could include: further training on information collection and analysis, EIAs, financial accounting and economics, project design, refresher courses on environmental programs/policies in Uganda and elsewhere, etc.

**4.19** The primary players participating in training at the district level include the following: members of the District Environment Committee (DEC); DTPC; DEO; and sub-county representatives. The District Coordination Unit in NEMA will be responsible for coordinating training programs with the district. Most training sessions will be provided by NEMA staff.

**4.20** Interactive Planning/PRA training for district officials will be contracted. In this case, two individuals from each district will be chosen to be trained in PRA techniques. A total of six district facilitators from the initial three districts will be trained in year one, six from the remaining three districts will be trained the second year. In each district the individuals will be chosen by the District Executive Secretary; however, it is envisaged that the DEO will in most cases be one of the two facilitators. The two district officials that receive PRA training will be known as the District Facilitator (DF). Their training will consist of a month long training course at Egerton in Kenya, a well known training institution for PRA suited to East Africa rural circumstances as well as training in project planning techniques.

**4.21** Criteria for selection of the district team would include: experience in extension training; good communication skills; interest and commitment. Special efforts will be made to select individuals who meet the above criteria and who also possess technical expertise in areas related to natural resources such as foresters, soil conservation and water management experts, agriculturist extensionists, etc. This team will not only be

involved in PRA training but will assist in the district in follow-on sub-county training (as identified later).

4.22 The Community Education and Training Officer from the division of Education, Awareness and Training at NEMA will attend the training at Egerton during the first training session and will assist in the coordination of all district PRA activities with the District Coordination Unit (DCU) in NEMA.

4.23 **Sub-Country Training Program:** Similar in structure to the district plan, the training activities to be undertaken for building capacity at the sub-county level for environmental management are divided into two separate packages; Sub-Country Initiation Package, and Sub-County Follow-On Package.

4.24 The initial package includes training necessary to enable communities to develop environmental action plans and to identify, plan, implement, and manage sustainable environmental projects which address their priority needs. Specific training includes: roles and responsibilities of sub-county planning; overview of NEMA and national policies and legislation; PRA; information systems; planning sessions to establish Sub-County Development Plans and Environmental Work Plans.

4.25 Additional training at the sub-county will be continued throughout the life of the project under the follow-on training package. Training will be based on needs assessment and topics that support the establishment of the environmental planning system. Training subjects could include: additional training for sub-county plan revision/updates, support to assist in formulation of by-laws and tax incentives, increasing revenue, planning based on data collected from information system, etc.

4.26 Additional training at the sub-county will be coordinated by the DTPC and specifically the DEO in coordination with the DCU.

4.27 **Community Micro-Projects:** The interactive planning process will generate community micro-projects developed by the parishes with assistance from the district facilitators and the sub-county Local Environmental Committees and the DEO. These parish projects will be integrated into the sub-county development plan and the environmental action plan. The sub-county will then determine which proposals would be suitable for funding under this component.

4.28 **Proposal Submission and Processing:** The final proposals will be forwarded from the parish to the sub-county Chief, for transmittal to the DEO. The DEO will be responsible for guiding and coordinating all parish/sub-county submissions and verifying the eligibility of the proposal. The DEO will then forward the proposals through the District Executive Secretary (DES) to the DCU in NEMA where the final processing will take place.

4.29 The proposals will be reviewed by the DCU and cleared by NEMA and submitted for funding on a quarterly basis.

4.30 **Funding Procedures:** On a quarterly basis approved project funds will be released from NEMA to the District Executive Secretary (DES) (the accounting officer at the district level) as earmarked funds for the specific micro-projects. The DEO will be responsible for ensuring that the funds reach the beneficiaries. Micro-projects in municipalities/town councils will be earmarked/channeled through the accounting officer.

4.31 The Funds will then be forwarded from the DES to the sub-county Chief (the accounting officer at the sub-county level) also as earmarked funds. Depending on the proposed use of the funds, project specific procurement requirements will be determined.

### **C. TRAINING AND LOCAL TECHNICAL ASSISTANCE.**

4.32 In view of the emphasis on capacity building, training would represent a substantial portion of project support. To the maximum extent possible, training would be provided in-county by local trainers, with external trainers utilized only for specialized subjects. External training would be provided for specialized PRA training of trainers. With the emphasis on building local capacity, consultancies will be awarded locally and expatriate technical assistance will be used sparingly, only for highly specialized expertise and only for short-term assignments.

### **D. MONITORING AND EVALUATION**

4.33 Careful monitoring of the proposed project is needed to help decision makers obtain quick and regular feedback on implementation progress, and to make rapid adjustments whenever required. Given the grassroots nature of the community component and its bottom-up approach, the details on the exact location, type, and number of investments at field level cannot be known before the interactive planning process is initiated. By design the project is inherently flexible, which makes the role of process monitoring far more important, and also more difficult.

4.34 One of the NEMA's functions would be to monitor the state of the environment and to produce a biennial report for the use of policy makers, sector ministries, and resource users. Strengthening of the environment information network under the project would enable it to provide more accurate, relevant, timely data for this report and generally to develop sound data bases which would be widely shared. This enhancement would also benefit project implementation, since environment monitoring would be extended to the district and sub-country levels.

4.35 Monitoring of the institutional component of the project would be undertaken on a broad basis regarding NEMA, since its performance would be measured against the advice provided by the Technical Committees. Substantial conflicts of interest would be brought to the attention of Government for corrective action. NEMA would also introduce a monitoring and evaluation system, to be agreed with GOU and IDA and specified in the implementation manual, to assess its own progress and that of the district and community natural resource management component. NEMA's monitoring of the community component would be based on its outreach activities, progress reports from

the communities/groups, and progress reports from the districts. Indicators of performance have been developed for both components and are given in *Annex 10*. *Assurances were received at negotiations that a monitoring system including project performance indicators satisfactory to IDA would be introduced to track progress of implementation (para. 6.1)*. To ensure that NEMA's structure/organization is appropriate and flexible, and to provide for responsive adjustments to NEMA if necessary, an annual review of NEMA's performance will be carried out. These reviews will ensure that NEMA retains its role as a secretariat and is essentially a lean authority. An annual evaluation of the district and community capacity building component will also be carried out, with the review at the end of year two to be comprehensive so that lessons learned may be applied in the implementation of the component for the remaining period. The evaluation will monitor the micro-projects in terms of the performance indicators listed in the Implementation Plan. An annual review workshop will also be held during project implementation, rotationally in each district and an Annual Report produced. The workshop will review the implementation of the previous year, identify constraints and issues, select best practices and set goals and implementation methodology for the following year. IDA's supervision program is given in Annex 11.

#### **Mid-term and Implementation Completion Review**

4.36 At the beginning of the third project year, a mid-term review would be conducted. To facilitate this review, NEMA would prepare a mid-term project report, to be distributed to all participants four weeks prior to the start of the review. The review team would review progress against key indicators during supervision, and against the objectives of the project as originally set out. The review would examine the functioning of NEMA as well as the development of a process to address community-based sustainable natural resource management issues. The mid-term review would also lead to changes in project design if these are thought to be necessary, with recommendations for the implementation of the proposed changes. *Assurances were received at Negotiations that a Mid-Term would be held at the start of project year three, during which the role, performance and rationale of NEMA would be reviewed and appropriate changes made. The review would also carry out an in-depth examination of the performance of the community component (para. 6.1)*.

4.37 The project completion review would focus on the achievements of the project and its impact in relation to objectives. In particular, consideration would be given to the effectiveness of the establishment of a process (through PRA) to address problems of natural resource management at the community level. The review would, thus, examine the impact of environmental planning and management through the establishment of NEMA and any changes in pollution or degradation of the environment resulting from agreements reached or actions taken at the national, district and community levels.

#### **E. ACCOUNTING, AUDITING, AND REPORTING**

4.38 Comprehensive financial and accounting guidelines would be prepared by NEMA and included in the finalized Project Implementation Plan. NEMA, through the Finance

and Administration Division, as part of project implementation, would assist local communities to maintain simple accounts.

4.39 Implementing agencies would maintain records and accounts satisfactory to IDA, which would be audited by independent auditors acceptable to IDA. NEMA would prepare annual financial statements (income statement, balance sheet, and cash flow) which would identify items financed out of the IDA Credit. The unaudited financial statements would be submitted to IDA within three months of the end of the fiscal year, and the auditors report, together with the audited financial statements, would be submitted to IDA within six months of the end of the fiscal year. The audit report would contain separate opinions on the Special Account and the Statements of Expenditure (SOEs). The auditors opinion will cover: (i) whether the annual accounts and financial statements present a true and fair picture of the financial position in accordance with generally recognized international accounting and auditing standards; (ii) that the movement of funds in the Special Account was strictly for the purpose of the project; and (iii) that where expenditures were properly incurred by NEMA and the community component, were properly incurred for the purposes intended under the project. *Assurances were received at Negotiations that Government would: (i) have the records and accounts of the project, including those for the special Accounts and SOEs, audited each fiscal year by acceptable private auditors on behalf of the Auditor General; and (ii) submit to IDA the audit reports comprising of the reports on the project account, Special Account and SOEs in the agreed format within six months of the close of the fiscal year. The audit report will include a statement on the adequacy of the accounting system and internal controls (para. 6.1).* District administrations would maintain project accounts and prepare annual statements of receipts and expenditures. An auditor's report covering all project districts, together with the audited statements, would be submitted to IDA within six months of the end of the fiscal year.

4.40 Participating communities/community-level groups would maintain project accounts and prepare statements of receipts and expenditures upon completion of the respective initiatives, which would be consolidated by NEMA into one account for auditing by independent auditors approved by GOU and acceptable to IDA in accordance with the initiative agreements.

4.41 NEMA would prepare a progress report on a semi-annual basis which would be submitted to IDA within thirty days of the end of the reporting period. Districts also would prepare semi-annual progress reports, a summary of which would be prepared by NEMA and submitted to IDA within 45 days of the end of the period. Each community/group would prepare a brief semi-annual progress report which would be submitted through the district to NEMA. NEMA's reports would contain a brief summary of the community/group reports.

4.42 Government would prepare its own implementation completion report, which would include an assessment of the Government's and IDA's performance of their respective obligations under the Credit Agreement and the extent to which the purposes of the Credit were achieved, and submit the report to IDA within six months of the closing date. *Assurances to this effect were received at negotiations (para. 6.1).*



## 5. BENEFITS, RISKS AND SUSTAINABILITY

### A. BENEFITS AND JUSTIFICATION

5.1 The project would support the Government's strategy for the sustainable use of environmental resources, as set out in the National Environmental Action Plan (NEAP). It would constitute an initial phase of a longer-term program for implementation of the NEAP. There are four major objectives identified in the plan which the project aims at: (i) sustainable development through appropriate environmental management; (ii) integration of environmental concerns into all development policies; (iii) preservation and/or restoration of the equilibrium of ecological processes; and (iv) raising public participation in environmental affairs. The project would therefore improve the management of environmental resources by both Government and the people, developing mechanisms for decision-making at national, district and community levels.

5.2 Given the uncertainties and imprecision in applying conventional cost-benefit analysis to environment projects, Financial Rates of Return and Economic Rates of Return cannot be meaningfully estimated. However, a brief qualitative description of economic costs and benefits is presented below.

5.3 **Capacity Building at National and District Levels.** The project would help lay the foundation for long-term sustainable development by strengthening environmental management capacity and by increasing the awareness of the environmental consequences of economic policies. More specifically, the development of an environmental information system, the introduction of environmental impact assessments and the design of environmental awareness and education programs at all levels would result in a greater availability of environmental information. The improved information would result in better decision-making. However, since the benefits of more information are in its use in bringing about desired change, they may not be quantifiable. Calculation of improved information value would require a comparison of the effects of policy decisions to be made (i) with and (ii) without the access to additional information.

5.4 Capacity building at the district level would result in the integration of environmental concerns into overall development activities and would be clearly expressed in district environmental action plans and in overall district development plans which incorporate environmental concerns. This would have a positive impact on the quality of decision-making and on management capability in general.

5.5 **Community Natural Resource Management.** The proposed project would establish a process by which local communities are empowered to achieve sustainable management of their natural resources. While this project is not a targeted poverty reduction initiative, the implications for poverty alleviation are significant. The establishment and implementation of improved sustainable production practices and improved agriculture, forestry and livestock production would contribute to a better

standard of living and quality of life for the communities involved in the project. The association between poverty and poor land management means that serious efforts to improve land management will tend to be targeted to poorer households and communities. Ultimately, an increased capacity for natural resource management would result in welfare gains and would therefore have a significant positive impact on efforts to alleviate poverty. Actions aimed at the sustainable use of land, water and forest resources would result in increased productivity of these resources, thus raising individual and community incomes. Concrete welfare gains would also enhance the sustainability of natural resource management practices, provided the distribution of these benefits is equitable, by motivating the communities to continue the new management techniques. Hence, while it may not be realized in the short-run, the project would have a significant poverty alleviation impact which is the central theme of the Bank's country strategy.

5.6 Finally, the environment and natural resource management experience gained under the project could be extended to other parts of Uganda not covered under the project. Thus, there is the potential benefit of replicability. Uganda's capacity to maintain and assess the sustainable utilization of its natural endowments would be strengthened, as would its economic development potential resulting in overall welfare gains.

## **Risks**

5.7 In building the national and local level capacity, the risks should not be underestimated. Developing a national environmental framework along with local participation and organization is a time-consuming process in which no short-cuts are possible. Performance indicators and monitoring mechanisms are specified in the NEMA and community component implementation plans which will allow for ongoing assessments of the impact of the project component. These assessments will provide guidance for modifying strategies, if necessary, to be more successful in building capacity.

5.8 Maximum flexibility would be maintained during the course of implementation to allow adjustment to changing circumstances and to the accumulation of experience with an innovative process, especially in terms of approaches at the sub-county and community levels. On the basis of experience gained and lessons learned, the program could be modified and/or extended to additional communities within the initial districts and to additional districts, on the basis of agreed criteria and mechanisms developed prior to and during implementation.

5.9 Risks to the project on the NEMA side are (i) over-commitment in the support and delivery of environmental outputs (e.g., an environmental information system, a legal framework, environmental action plans); and (ii) lack of government support in the form of challenges to NEMA's independence and inadequate funding. The project design, as detailed in the Project Implementation Manual, has taken into account the potential limitations during the first five years of NEMA's operation and has provided adequate human and material resources to carry out its five-year work program. The project would address the issue of government financing by ensuring that the project is included in the Government's core investment program.

5.10 Another risk is that NEMA could become isolated and bureaucratic and begin to exist only for itself. To combat this risk, provisions have been made in the project which direct NEMA *outward* to the relevant sectoral ministries (horizontal linkages) and to the districts (vertical linkages). The Information and Monitoring Division, for example, provides specific support to all project districts in terms of equipment, staff and other resources. In addition, all professional NEMA staff have an annual average allocation of 40 days of travel to the districts, sub-counties, etc.

5.11 Other risks are associated with the project's approaches to capacity building at the district and community levels and with the implementation of micro-projects. The local capacity to design and implement natural resource management initiatives currently is very limited. Secondly, in order to test the new approaches, flexibility in project design is required. This flexibility would exert pressure on the capabilities of the local authorities since blueprints with standard solutions are not available. Moreover, specific expertise on the side of the donor(s) is required to assist the agencies in project implementation. Thirdly, a pre-requisite for successful environmental actions is cooperation within communities. Developing this cooperation through participatory development is a time-consuming process and could slow implementation of the project, and consequently its disbursement rate. Therefore the project opts for an approach which would allow for the gradual development of resource management capability. Generation of micro-projects could also be stalled through lack of coordination between NEMA, the districts, sub-counties, and parishes. The project clearly establishes the process for developing and approving as well as disbursing for these micro-projects.

### **Project Sustainability**

5.12 The major sustainability questions relate to (i) the role and effectiveness of the proposed NEMA; (ii) district administrative capacity; (iii) interactive planning and implementation capacity in support of community initiatives; and (iv) continued Government commitment and financing. The issues regarding NEMA would be addressed during implementation through agreed mechanisms and its role would be reviewed at the mid-term review. Sustainability at the district level will be enhanced by relating environmental management to administrative capacity and initially only six districts are being supported under the project. Building capacity at the district and community level through enhanced interactive planning techniques is one of the objectives of the project and will therefore be addressed during implementation. The President of Uganda has stated that environmental management is a high priority for the Government. Efforts are being made to ensure that this function is prioritized and integrated into the overall development program, and mechanisms/conditionality are being introduced to implement agreements essential to project success. In terms of fiscal/budgetary burden for the Government, the net of tax costs would only be only US\$1.8 million (UgSh 1.70 billion) over the next five years. The district and community component would eventually be self-financing i.e. beneficiary contributions. *Assurances were received at negotiations that the proposed project would be included under the core program of the Public Investment Plan (para. 6.1).*



## 6. AGREEMENTS REACHED AND RECOMMENDATION

### A. ASSURANCES AT NEGOTIATIONS

- 6.1 Assurances were received during negotiations are that:
- (a) procurement of the goods, works, and consultant services required for the project and to be financed out of the proceeds of the Credit would be undertaken in accordance with procedures satisfactory to IDA (para. 3.31);
  - (b) disbursement arrangements would be satisfactory to IDA, a Special Account would be opened at a commercial bank (para. 3.38);
  - (c) GOU would set up a Project Account for NEMA disbursements from the Government's contribution (para 3.40);
  - (d) an annual workshop would be held to assess implementation progress and agree on any adjustments needed (para. 4.6);
  - (e) NEMA would prepare an Annual Work Plan including a budget and a training plan, to be approved by the Board of Directors of NEMA, and submitted to IDA for review and approval no later than April 30, each year (para. 4.6);
  - (f) a monitoring system, including project performance indicators, satisfactory to IDA would be introduced to track progress of implementation (para. 4.35);
  - (g) a mid-term review would be held at the start of project year three, during which the role, performance and rational of NEMA would be reviewed and appropriate changes made. The review would also carry out an in-depth examination of the performance of the community component (para. 4.36);
  - (h) Government would: (i) have the records and accounts of the project, including those for the Special Account, Project Account, and SOEs, audited each fiscal year by acceptable private auditors on behalf of the Auditor General; and (ii) submit to IDA the audit reports comprised of the reports on the project account, Special Account and SOEs in the agreed format within six months of the close of the fiscal year. The audit report will include a statement on the adequacy of the accounting system and internal controls (para. 4.39);
  - (i) GOU would submit an Implementation Completion Report within six months of the closing date (para. 4.42); and

- (j) the proposed project would be included under the core program of the Public Investment Plan (para. 5.12).

#### **B. CONDITIONS OF BOARD PRESENTATION**

6.2 The following were the conditions of Board presentation:

- (a) the statutory order establishing NEMA would have been drafted and approved (para 2.51). This condition has been met through the Statutory Instrument, (1995 No. 78) dated May 19, 1995, which confirmed that the National Environment Statute, 1995, has come into force, thereby formally establishing NEMA; and
- (b) the Project Agreement, to be entered into between IDA and NEMA, must be ratified by the Board of Directors of NEMA.

#### **C. CONDITIONS OF CREDIT EFFECTIVENESS**

6.3 The following are the conditions of credit effectiveness:

- (a) the GOU prepare and adopt an action plan and timetable for actions required to eliminate any overlap or duplication of functions and tasks of the Department of Environment and NEMA (para 2.31);
- (b) the 95/96 national budget would contain provision for adequate funding NEMA in line with NEMA's annual work plan and budget (para. 3.30);
- (c) evidence that the GOU had established a Project Account and had deposited its share of funding representing three months' operating expenses (US\$90,000 equivalent) (para. 3.40);
- (d) a rudimentary structure of NEMA consisting of the following key NEMA staff, Executive Director, Deputy Executive Director and the directors of the four division of NEMA, would have been appointed (para 4.2); and
- (e) the Project Implementation Plan has been finalized (para. 4.3).

#### **D. RECOMMENDATION**

6.4 Based on the above agreements, the project is suitable for an IDA Credit to the Republic of Uganda of US\$11.8 million on standard IDA terms with 40 years maturity.

**Table 1**  
**Key Features of the Organizational Arrangements**  
**included in**  
**The National Environmental Statute, 1995**

		Ref
<b>Policy Committee</b>		Clause 8, page 20
<b>Members</b>	Prime Minister	First Schedule, page 76
	Minister responsible for Natural Resources	
	Minister responsible for Agriculture, Animal Industry and Fisheries	
	Minister responsible for Finance and Economic Planning	
	Minister responsible for Education and Sports	
	Minister responsible for Health	
	Minister responsible for Lands and Housing	
	Minister responsible for Local Government	
	Minister responsible for Trade and Industry	
	Minister responsible for Gender and Community Development	
Minister responsible for Tourism, Wildlife and Antiquities		
<b>Chairman</b>	Prime Minister	First Schedule, page 77
<b>Alternate-Chairman</b>	Minister responsible for Natural Resources	
<b>Ex-Officio Members</b>	Chairman of the Management Board (Table 2) Executive Director of NEMA	Clause 8 (3), page 20
<b>Secretary</b>	Executive Director of NEMA	First Schedule, page 77

**Table 2**

		Ref
<b>Board of Directors</b>		Clause 9, page 21
Members of the Board of Directors	A Representative of the Ministry of Natural Resources	Second Schedule, pages 78/79
	A Representative of the Ministry of Agriculture, Animal Industry and Fisheries	
	A Representative of the Ministry of Finance and Economic Planning	
	Two representatives of Academic and Research Organizations	
	Two representatives of local Non-Governmental Organizations	
	Two Representatives of Private Sector	
Chairman Vice-Chairman	Appointed by the Minister of Natural Resources on the recommendation of the Policy Committee	
Ex-Officio Member	Executive Director of NEMA	Clause 9 (6), page 21
Appointment to the Management Board	By the Minister of Natural Resources with approval of the Policy Committee	Clause 9 (2), page 21
Secretary	The Management Board will elect the Secretary	



Table 3

		Ref
<b>National Environment Management Authority</b>		Clause 5, page 17
Management	Executive Director Deputy Executive Director Four Divisional Managers	Clause 12, page 23
Appointed by	The Executive Director and the Deputy will be appointed by the Minister of Natural Resources on the recommendation of the Management Board and with the approval of the Policy Committee. Divisional managers will be appointed by the Executive Director with the approval of the Board of Directors	Clause 12, page 23
Oversight	NEMA shall be under the general supervision of the Minister ( <i>of Natural Resources</i> )	Clause 5 (4), page 18
Divisions	Policy, Planning and Legal Information and Monitoring Education, Awareness and Training Administration and Finance	
Liaison Units	District Councils Environmental Liaison Units in Sectoral Ministries	



**The Functions of the Policy Committee**

1. The functions of the Policy Committee on the Environment shall be:-
  - (a) To provide policy guidance, formulate and coordinate environmental policies;
  - (b) liaise with the Cabinet on issues affecting the environment;
  - (c) identify obstacles to the implementation of environmental policy and programmes and ensure implementation of those policies and programs;
  - (d) to perform any other function that may be assigned to it by Government.

*The National Environment Statute, 1995, Clause 8 (2)*

**The Functions of the Board of Directors**

2. The functions of the Board shall be:-
  - (a) to oversee the implementation and successful operation of the Authority;
  - (b) to review the policy and strategic plan of the Authority;
  - (c) to provide guidance to the Executive Director and staff;
  - (d) to approve the annual budget and plans of the authority;
  - (e) to monitor and evaluate the performance of the authority against plans and budgets;
  - (f) to establish and approve rules and procedures for the appointment, discipline, termination and terms and conditions of service of staff, administrative matters and financial matters;
  - (g) any other duties assigned to it by this Statute.

*ibid, Clause 10 (1)*

### **Role and Functions of NEMA**

Specifically, NEMA would have the following functions:-

- (a) to coordinate the implementation of Government policy and the decisions of the Policy Committee
- (b) to ensure in the integration of environmental concerns in overall national planning through coordination with the relevant ministries, departments and agencies of Government;
- (c) to liaise with the private sector, inter-governmental organizations, non-governmental agencies and governmental agencies of other states on issues relating to the environment;
- (d) to propose environmental policies and strategies to the Policy Committee;
- (e) to initiate legislative proposals, standards and guidelines on the environment in accordance with this Statute;
- (f) to review and approve environmental impact assessments and environmental impact statements submitted in accordance with this Statute or any other law;
- (g) to promote public awareness through formal and informal education about environmental issues;
- (h) to undertake such studies and submit such reports and recommendations with respect to the environment as the Government or the Policy Committee may consider necessary;
- (i) to ensure the observance of proper safeguards in the planning and execution of all development programs, including those already in existence that have or are likely to have significant impact on the environment in accordance with Part V of this Statute;
- (j) to gather, analyse and disseminate a state of the environment once in every two years;
- (k) to prepare, expedite and monitor resources for environmental management; and
- (l) to perform such other functions as the Government may assign to the Authority or as are incidental or conducive to the exercise by the Authority of any or all of its functions provided for under this Statute.

*ibid, Clause 7 (1)*

**Project Implementation Plan**

**NEMA's Start-Work Program,**

**NEMA's Detailed First Year's Work Plan**

**and**

**Outline Work Plan for Year's 2-5**

Schedule of Key Activities for the Establishment of NEMA

Month	1	2	3	4	5	6	7	8	9	
Incorporate NRC Comments into NEAP Docs	*	*		To be carried out by the NEAP/NEMA Transition Secretariat						
Develop NEMA Bridging Proposal for USAID	*	*								
Finalize NEMA Documents	*	*								
Management Board (Identification of Candidates)		*								
Minister Nominates Management Board			*							
First Policy Committee Meeting				*						
Management Board in Place				*						
NEMA Executive Director Recruitment		*	*							
First Management Board Meeting					*					
Minister Appoints Executive Director					*					
Second Policy Committee Meeting					*					
Executive Director Hired and On-Board					*					
Key NEMA Staff Recruitment			*	*	*					
Executive Director Nominates Key NEMA Staff							*			
Second Management Board Meeting						*				
Key NEMA Staff Hired and On-Board							*			
Establish NEMA District Coordination Unit							*			
NEMA Staff Training Needs Assessment							*	*		
NEMA Staff Training Plan Developed								*		
NEMA Management Training and Team Building									*	
ELUs Established and Training Started				*	*	*	*	*	*	

NEMA's Detailed First Year's Work Plan

	Year 1 (by month)											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Organizational Activities</b>												
Establish Personnel, Financial and MIS	*	*	*	*								
Complete Staff Recruitment	*	*	*									
Equipment Procurement	*	*	*	*	*	*						
NEMA Training Needs Assessment				*	*							
Staff Orientation			*									
Team Building and Mgt. Trg. Workshop				*								
Finalize 18 Month Work Plan				*	*							
<b>Planning Policy and Legal Division</b>												
Workshop on NEMA for LMs			*									
Establish Env. Liaison Units			*	*								
Review Sectoral Policies		*	*	*	*	*						
Review Sectoral and National Investment Plans				*	*	*						
Training Needs Assessments for Line Ministries						*	*					
Workshop on National Investment Plans								*				
Review Env. Mgt. Statute and Draft Regulations	*	*	*	*	*							
Est. Contract Management System for NEMA	*	*										
Review and Draft Env. Standards and Regulations							*	*	*	*	*	*
Estab. Task Force On Env. Impact Procedures				*	*	*						
Workshop on EIA Guidelines						*						
Finalize EIA Procedures/Guidelines							*	*	*	*	*	*
Workshop on Env. Economics for ELUs									*			
Draft EIA Regulations for Gazetting												*

NEMA's Detailed First Year's Work Plan

	Year 1 (by month)											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Education, Awareness and Training Division</b>							*	*	*	*	*	*
Establish Links with National Curriculum Development Council	*	*	*	*								*
Establish Links with Int'l, Reg'l and Nat'l Awareness Programs and Trg. Inst	*	*	*	*	*	*						
Organize NEAP/NEMA Workshops for LMs			*									
Conduct Training Needs Assessment for LMs/ELUs						*	*					
Organize Workshop on Env. Considerations in National Planning							*	*				
Organize Workshop on EIA Guidelines for ELUs, LMs and Private Sector					*	*						
Organize Workshop on Env. Economics								*	*			
Conduct Training Needs Assessments in 6 Pilot Districts						*	*	*	*			
Organize Multi-Focus Training Program										*	*	
Implement Training Programs and Workshops Arua and Kabale											*	*
Establish Links with Min. of Information, Dist. Info. Cites. for Env. Awareness Programs				*	*	*	*					
Conduct Awareness Programs			*			*			*			*
<b>Information and Monitoring Division</b>												
Develop Linkages with Int'l Data Sources	*	*	*	*								
Develop Indicators for Environmental Monitoring				*	*	*	*	*	*	*	*	*
Establish Standard Formats for Data				*	*	*	*	*	*	*	*	*
Prepare State of the Environment Report										*	*	*
Establish Data Bases and cataloguing System for an Interactive Interface	*	*	*	*	*	*	*	*	*	*	*	*
Establish NEMA Library and Data Archives						*	*	*	*	*	*	*
Establish Horizontal EIS Network in Key Line Agencies and Institutions	*	*	*	*	*	*						



NEMA's Detailed First Year's Work Plan

	Year 1 (by month)											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Information and Monitoring Division (Con't)</b>												
Define Key Players, Minimum Data Sets, Gaps and Actions to Improve Quality and Quantity of Data				*	*	*	*	*	*	*	*	*
Identify Sector and Technical Resource Needs				*	*							
Production and Up-dating of Data Base				*	*	*	*	*	*			
Workshop on EIS Issues and Methods for Horizontal Network								*				
Conduct EIS Assessment Activities in Six Pilot Districts									*	*	*	*
Implement Vertical Network in Arua and Kabale, Set Up EIS System and District Env. Profile										*	*	*
<b>Finance and Administration Division</b>												
Establish Financial Accounting Systems	*	*	*									
Establish Management Information System			*	*	*	*						
Establish Personnel Procedures	*	*	*									
Review Personnel Policies				*	*	*	*					
Prepare Monthly Report	*	*	*	*	*	8	*	*	*	*	*	*
Carry out Internal Audits					*		*		*			

Outline Work Plan for Year's 2 - 5

	Year 2				Year 3				Year 4		Year 5	
	1	2	3	4	1	2	3	4	1	2	1	2
<b>Planning Policy and Legal Division</b>												
Review Sectoral Policies and Establish Revision Program		*				*				*		*
Review Sectoral and National Investment Plans		*				*				*		*
Hold Workshop on National Environmental Plans		*				*				*		*
Review and Draft Environmental Standards and Regulations			*				*		*		*	
Hold Workshop On Env. Econ. for ELUs				*				*		*		*
Draft EIA Regulations for Gazetting	*											
Hold Training Workshops on EIA		*	*		*		*			*		*
Establish EIA Certification Program		*										
<b>Education, Awareness and Training Division</b>												
Organize Workshops on Env. Considerations in National Planning for LMs and ELUs		*			*				*		*	
Organize Workshops on Env. Economics				*				*		*		*
Organize Workshops on EIA Procedures for LMs, ELUs and the Private Sector	*	*				*			*		*	
Implement Training Programs and Workshop: Arua and Kabale Mbarara and Tororo Mbale and Kasese	*	*	*									
Conduct Training Needs Assessment - 2nd Set of Districts			*	*	*	*						
Implement Training - 2nd Set of Districts					*	*	*	*				
Conduct Training Needs Assessment - 3rd Set of Districts							*	*				
Implement Training - 3rd Set of Districts								*	*	*		
Conduct Training Needs Assessment - 4th Set of Districts										*		
Implement Training - 4th Set of Districts										*	*	*
Conduct Awareness Programs	*	*	*	*	*	*	*	*	*	*	*	*

Outline Work Plan for Year's 2 - 5

	Year 2				Year 3				Year 4		Year 5	
	1	2	3	4	1	2	3	4	1	2	1	2
<b>Information and Monitoring Division</b>												
Prepare State of the Environment Report	*							*	*			*
Establish NEMA Library and Data Archives	*	*										
Production and Up-Dating of Data Bases		*	*			*	*		*		*	
Workshop on EIS Issues			*			*	*			*		*
Implement Vertical Network Arua and Kabale Mbarara and Tororo Kasese and Mbale	*	*	*	*	*	*						
EIS Assessment Mission in 2nd Set of Districts					*							
Implement Vertical Network in 2nd Set of Districts						*	*	*	*	*		
EIS Assessment Mission in 3rd Set of Districts								*				
Implement Vertical Network in 3rd Set of Districts									*	*	*	
EIS Assessment Mission in 4th Set of Districts											*	
Implement Vertical Network in 4th Set of Districts											*	*
<b>Finance and Administration Division</b>												
Prepare Accounts for Audit	*	*			*	*			*		*	
Complete Audit		*				*			*		*	
Carry out Internal Audits			*				*			*		*
Oversee Preparation of Annual Report	*				*				*		*	
Carry Out Staff Performance Reviews	*				*				*		*	
Review Internal Procedures and Modify as Required			*				*			*		*
Oversee Preparation of Mid-Term Review				*	*							



**Project Preparation - Studies Identified**

During project preparation, Team D, responsible for developing a proposed studies component, identified the following potential studies.

Studies		
Title	Criteria	Cost (US\$)
Land Degradation	Degradation has an immediate impact on resource productivity; reversal has a definite cost associated with it;	1,388,360
	Capacity building and awareness; Direct cost benefit impact of degradation and community awareness and response to corrective measures.	199,254
Carrying Capacity of Rangelands	Importance of study for livestock productivity; Close relationship with land degradation; Capacity building; Maintenance of biodiversity	1,128,175
Biodiversity Assessment of Protected and Non-Protected Areas	Biodiversity/wildlife sustainability; Capacity building for management and monitoring;	1,799,966
	Biodiversity sustainability; Quantification of the costs and benefits of conservation; Community awareness and participation.	159,302
Assessment of Fisheries and fauna Biodiversity Loss in the Western Parts of Lake Victoria	Importance of fish as a cheap source of protein; Fisheries biodiversity maintenance; Improved productivity but some studies to address some of the issues underway.	1,233,000
Water Quality Management in Greater Kampala	Biodiversity; Community awareness and health considerations	2,200,000
Forestry Degradation	Resource productivity; Biodiversity sustainability; Community awareness and utilization of resources.	196,005
	Economic Assessment of forest resource utilization and quantification of costs and benefits; forest biodiversity maintenance.	129,714
	Assessment of community reaction to participatory conservation measures.	325,719
<b>Grand Total</b>		<b>8,413,776</b>

Source:- Environmental Capacity Building Preparation Report, Vol I

**Project Preparation Team**

J Akenda-Ondoga	Team Leader and Environmental Economist
M Magunda	Soil Scientist
F Mbuza-Bagama	Animal Production Specialist
J Tindigarukayo-Kashagire	Biodiversity and Wildlife Specialist
F Kahembwe	Forester
P Nsubuga-Sefuma	Water Quality Specialist
W Viva	Land Use/Photo Imagery Specialist
F Oguto-Ohwayo	Fisheries Specialist

### **Project Preparation - Projects Identified**

1. During Project Preparation, funded under the Project Preparation Facility by IDA, two teams, made up of local and international consultants, worked in Kabale and Arua districts to identify and prepare natural resource management projects. A summary of the proposed projects is given in Table 1 for Kabale, and Table 2 for Arua. Full details of the proposed projects can be found in the Environment Management Capacity Building Project, Volume III, dated September, 1994 and held in the project files.
2. The projects as proposed fall outside both the scope of community based activities defined by the eligibility criteria established for micro-projects, as well as the funding level set for micro-projects under EMCBP.
3. The projects were identified however as priority activities by the two preparation teams and members of the local councils and villages. Many of the proposed projects represent important steps in improving the environmental health of the districts and warrant serious consideration for donor funding.

### **Project Preparation of the NEMA Component**

4. A team from the NEAP Secretariat was responsible for preparing this component.

### **Management of Project Preparation**

5. The Project Preparation Teams operated under the general guidance of A. Osuban, Consultant with support from the Ministry of Natural Resources and the parent ministries of the government team members. He was assisted by Ms N. Rukuba-Ngaiza.
6. The participants of the above teams are listed at the end of the annex.

Table 1

## Kabale District - Bufundi sub-County

For calculation purposes, UgSh 1,000 = US\$1.00

Project	Brief Description	Est., Cost US\$
<b>Agriculture</b>	includes:- - farmer training - materials for farmer training - staff costs - introductory policy workshops <b>Total</b>	1,005,000 121,000 81,000 5,900 <b>1,212,900</b>
<b>Transport</b>	includes: - access roads from Kishanje, Kagana and Nfashomwane to ferry landing site - ferry for Lake Bunyoni <b>Total</b>	242,800 750,000 <b>992,800</b>
<b>Project Management</b>	includes:- - support for project(s) implementation <b>Total</b>	42,000 <b>42,000</b>
<b>Polytechnic</b>	includes:- - training in agriculture, catering (supporting tourism),and carpentry and masonry - support to teaching staff - equipment and consumables - construction of dormitory and class rooms - allowances for students <b>Total</b>	660,400 <b>660,400</b>
<b>Development of Alternative Sources of Energy</b>	includes:- - study of small streams for water powered mills and small scale hydroelectricity generation - study on the use of bio-gas <b>Total</b>	436,100 <b>436,100</b>
<b>Sanitation and Family Planning</b>	includes:- - training of health care providers - equipment and consumables - provision of contraceptives - support to church groups on sanitation <b>Total</b>	418,300 <b>418,300</b>
<b>Improvement in Water Supply</b>	includes:- - support to church groups on water supply <b>Total</b>	487,500 <b>487,500</b>
	<b>Grand Total</b>	<b>4,250,000</b>

Source:- Environmental Capacity Building Preparation Report, Vol III



Table 2

## Arua District

For calculation purposes, UgSh 1,000 = US\$1.00

Project	Brief Description	Est., Cost US\$
<b>Maracha County</b>	includes:- - fish ponds - seeds and propagation materials - training - forest plantations - spring protection - repairs to cattle dip and improvement in livestock market - studies (cassava, plantations and dairy production <div style="text-align: right;"><b>Total</b></div>	4,750 3,700 68,800 12,500 3,600 1,400 9,000 <b>103,750</b>
<b>Rhino sub-County</b>	includes:- - training - enforcement of fishing bye-laws - strengthening extension services - teak and cashew nut planation - construction of <i>chorkar</i> ovens <div style="text-align: right;"><b>Total</b></div>	2,500 2,500 72,500 101,000 2,250 <b>180,750</b>
<b>Ajai Game Reserve</b>	includes:- - determination and marking of game reserve boundary <div style="margin-left: 40px;">- capital</div> <div style="margin-left: 40px;">- recurrent, pa</div> - institutional strengthening, inc., civil works, transport, radios, etc <div style="margin-left: 40px;">- capital</div> <div style="margin-left: 40px;">- recurrent, pa</div> - strengthening extension services, inc., transport, housing and minor civil works <div style="margin-left: 40px;">- capital</div> <div style="margin-left: 40px;">- recurrent costs</div> - improving infrastructure <div style="margin-left: 40px;">- capital</div> <div style="text-align: right;"><b>Total</b></div>	60,300 2,400 86,900 27,200 46,400 8,400 56,000 <b>287,600</b>
<b>Arua Municipality</b>	includes:- - new abattoir - provision of rubbish skips - skip transportation vehicle - extension services - scholarship for urban planner - urban planning equipment <div style="text-align: right;"><b>Total</b></div>	30,000 6,400 24,000 24,900 16,000 36,200 <b>137,500</b>

Source:- Environmental Capacity Building Preparation Report, Vol III

**Project Preparation Teams****Team A****NEAP Secretariat  
Local Consultants**

D Ogaram	Team Leader and Physician
R Wabunoha	Lawyer
G Lamtoo	Education Specialist
C Sebukeera	Forester
C Kazoora	Environment Economist
F Turayatunga	Environment Information Specialist
M Odwedo	Local Government/Decentralization Specialist

**International Consultant**

R Hall	Institutional Specialist
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**Team B****Kabale Team  
Local Consultants**

W F Epeju	Team Leader and Agronomist
J Eccat	Wetland Specialist
B Kumumanya	Local Gov't Specialist
C Munyabuntu	Rangeland Specialist
P Ogwang	Financial Analyst
Ms G I Opito	Economist
J Rutaraka	Forest Specialist
E K Sseketawa	Sociologist
A Tushabe	Water Quality Specialist and Sanitary Engineer

**International Consultants**

B Downing	Soil Conservation and Land Use Planning Consultant
B. Tengenas	Farming Systems and Agro-Forestry Specialist
Ms Mary Tiffin	Interactive and Participatory Planning Consultant

**Kabale District Team**

P S Manirakiza	Team Leader and ADES <u>1</u> /
J Basabokwe	DCDO <u>2</u> /
J Gumisiriza	District Economist
C Izaara	Senior Staff Surveyor
S J Karamagi	Agricultural Officer

**Project Preparation Teams (con't)****Team B**

Ms F K Mwegwa	Land Valuer
P R Ndabahwerize	District Veterinary Officer
C Ngabirano	Water Development Officer
Ms A Ntwirenabo	Chairperson, District Womens Council
A Rutasikwa	Fisheries Assistant
A Tusingure	Asst. Forestry Officer

**Team C****Arua Team  
Core Group**

Ms L K Kyokunda	Team Leader and Economist
K Ismael	Sociologist
D H Miuro	Soil Conservation Specialist

**Support Team**

C Munyabuntu	Rangeland Specialist
J Rutaraka	Forest Specialist
A Tushabe	Water Quality Specialist and Sanitary Engineer
J Ecaat	Wetlands Specialist

**International Consultants**

B Downing	Soil Conservation and Landuse Planning Consultant
B Tengnas	Farming Systems and Agro-Forestry Specialist
Ms M Tiffen	Interactive and Participatory Planning Consultant

**Arua District Team**

W K Moses	Town Clerk, Arua Municipal Council
M R Wafula	ADES <u>1/</u>
P Kisaamo	District Economist
J L Aritua	Community Development Officer
J Muwadi	Game Warden
R Dramadri	Agricultural Officer
D Batre	Veterinary Officer
J Kwonka	Forestry Officer

1/ Assistant District Executive Secretary2/ District Community Development Officer



## Cost Tables

Table No.	Title
1	Components Project Cost Summary
2	Project Components by Year, inc. Contingencies
3	Disbursement Accounts by Financier
4	Local, Foreign and Taxes by Financier
5	NEMA - Executive Office and General Support
6	Planning Policy and Legal Division
7	Information and Monitoring Division
8	Education, Awareness and Training Division
9	Administration and Finance
10	Studies Component
11	Local Level Capacity Building
12	Support to the Districts and Micro-Projects

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UGANDA  
ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING  
Components Project Cost Summary

	(US\$ Million)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>A. NEMA</b>								
Executive Office	2,126	1,179	3,305	2,238	1,241	3,479	36	28
Planning, Policy and Legal	556	-	556	585	-	585	-	5
Information Center and System Development	1,717	1,162	2,879	1,807	1,223	3,030	40	25
Monitoring	299	-	299	315	-	315	-	3
Education, Training and Program Promotion	550	11	562	579	12	591	2	5
Administration and Finance	380	-	380	400	-	400	-	3
Studies	95	380	475	100	400	500	80	4
<b>Subtotal NEMA</b>	<b>5,724</b>	<b>2,732</b>	<b>8,456</b>	<b>6,025</b>	<b>2,876</b>	<b>8,901</b>	<b>32</b>	<b>72</b>
<b>B. District Level Actions</b>								
Capacity Building/Training	757	258	1,015	797	271	1,069	25	9
Dist. and S-C Support	561	578	1,139	591	608	1,199	51	10
Micro-projects	923	205	1,129	972	216	1,188	18	10
<b>Subtotal District Level Actions</b>	<b>2,242</b>	<b>1,041</b>	<b>3,283</b>	<b>2,360</b>	<b>1,096</b>	<b>3,456</b>	<b>32</b>	<b>28</b>
<b>Total BASELINE COSTS</b>	<b>7,966</b>	<b>3,773</b>	<b>11,739</b>	<b>8,385</b>	<b>3,971</b>	<b>12,356</b>	<b>32</b>	<b>100</b>
Physical Contingencies	797	377	1,174	839	397	1,236	32	10
Price Contingencies	1,341	501	1,842	696	254	950	27	8
<b>Total PROJECT COSTS</b>	<b>10,104</b>	<b>4,651</b>	<b>14,755</b>	<b>9,920</b>	<b>4,623</b>	<b>14,543</b>	<b>32</b>	<b>118</b>

UGANDA  
ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING  
Project Components by Year – Totals Including Contingencies  
(US\$ '000)

	Totals Including Contingencies					Total
	1996	1997	1998	1999	2000	
<b>A. NEMA</b>						
Executive Office	943	762	830	776	799	4,109
Planning, Policy and Legal	131	135	139	143	147	694
Information Center and System Development	1,452	631	467	532	441	3,523
Monitoring	61	63	81	84	86	375
Education, Training and Program Promotion	201	118	122	125	129	695
Administration and Finance	89	92	95	98	101	474
Studies	-	287	296	-	-	584
<b>Subtotal NEMA</b>	<b>2,878</b>	<b>2,087</b>	<b>2,029</b>	<b>1,757</b>	<b>1,703</b>	<b>10,454</b>
<b>B. District Level Actions</b>						
Capacity Building/Training	186	344	197	266	254	1,267
Dist. and S-C Support	518	260	197	207	218	1,399
Micro-projects	147	228	313	403	332	1,422
<b>Subtotal District Level Actions</b>	<b>851</b>	<b>832</b>	<b>708</b>	<b>896</b>	<b>804</b>	<b>4,089</b>
<b>Total PROJECT COSTS</b>	<b>3,729</b>	<b>2,919</b>	<b>2,735</b>	<b>2,653</b>	<b>2,507</b>	<b>14,543</b>

UGANDA  
 ENVIRONMENTAL MANAGEMENT CAPACITY B  
 Disbursement Accounts by Financiers  
 (US\$ '000)

	The Government		International Development Association		Other Donors		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%			
1. Civil Works	98	23.1	328	78.9	-	-	426	2.9	108	220	98
2. Office Equipment	312	22.6	1,070	77.4	-	-	1,382	9.5	887	183	312
3. Software	43	25.9	123	74.1	-	-	166	1.1	123	-	43
4. Vehicles	155	25.9	444	74.1	-	-	599	4.1	444	-	155
5. Training	0	-	2,051	100.0	-	-	2,051	14.1	441	1,611	-
6. Materials and Supplies	236	25.0	707	75.0	-	-	942	6.5	486	221	236
7. Technical Assistance	0	-	983	100.0	-	-	983	6.8	733	249	-
8. Incremental Staff	832	28.9	2,258	73.1	-	-	3,090	21.2	-	3,090	-
10. Employers Soc. Sec. Cont.	486	100.0	-	-	-	-	486	3.3	-	486	-
11. Travel	-	-	95	100.0	-	-	95	0.7	-	95	-
12. Office and Vehicle O & M	907	38.4	1,585	63.6	-	-	2,492	17.1	1,089	756	646
14. Office Rent	228	100.0	-	-	-	-	228	1.6	-	207	21
15. Community Environment Grant Fund	129	9.1	1,293	80.9	-	-	1,422	9.8	259	1,034	129
16. Miscellaneous Disbursement	16	9.1	164	90.9	-	-	181	1.2	54	111	16
<b>Total</b>	<b>3,443</b>	<b>23.7</b>	<b>11,099</b>	<b>78.3</b>	<b>-</b>	<b>-</b>	<b>14,543</b>	<b>100.0</b>	<b>4,623</b>	<b>8,263</b>	<b>1,657</b>



UGANDA  
ENVIRONMENTAL MANAGEMENT  
Local/Foreign/Taxes by Financiers  
(US\$ '000)

	The Government		International Development Association		Other Donors		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
I. Foreign	8	0.2	4,615	99.8	-	-	4,623	31.8
II. Local (Excl. Taxes)	1,778	21.5	6,485	78.5	-	-	8,263	58.8
III. Taxes	1,657	100.0	-	-	-	-	1,657	11.4
<b>Total Project</b>	<b>3,443</b>	<b>23.7</b>	<b>11,099</b>	<b>78.3</b>	<b>-</b>	<b>-</b>	<b>14,543</b>	<b>100.0</b>

UGANDA  
ENVIRONMENTAL MANAGEMENT CAPACITY BUILD

Table 1. Executive Office and General Support /a

Detailed Costs

Unit	Quantities					Total	Unit Cost	Base Cost ('000)					Total	
	1996	1997	1998	1999	2000			1996	1997	1998	1999	2000		
<b>I. Investment Costs</b>														
<b>A. NEMA Managers</b>														
1. Executive Director	mm	12	12	12	12	12	60	2,200	26.4	26.4	26.4	26.4	26.4	132.0
2. District Support Coordinator	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
<b>3. Office Support</b>														
Executive Secretary	mm	12	12	12	12	12	60	663	8.0	8.0	8.0	8.0	8.0	39.8
Secretaries	mm	96	96	96	96	96	480	464	44.5	44.5	44.5	44.5	44.5	222.7
Receptionist	mm	12	12	12	12	12	60	331	4.0	4.0	4.0	4.0	4.0	19.9
Drivers	mm	60	84	108	108	108	468	331	19.9	27.8	35.7	35.7	35.7	154.9
Other Office Help	mm	36	36	36	36	36	180	199	7.2	7.2	7.2	7.2	7.2	35.8
Subtotal Office Support									83.5	91.4	99.4	99.4	99.4	473.1
4. Travel Allowances /b	amount								4.0	4.0	4.0	4.0	4.0	20.0
Subtotal NEMA Managers									129.8	137.8	145.7	145.7	145.7	704.6
<b>B. Vehicles</b>														
1. Sedans	units	1	-	-	-	-	1	22,950	23.0	-	-	-	-	23.0
2. 4-Wheel Drive	units	4	2	2	-	-	8	32,400	129.6	64.8	64.8	-	-	259.2
3. Motorcycles	no.	2	-	-	-	-	2	2,700	5.4	-	-	-	-	5.4
Subtotal Vehicles									158.0	64.8	64.8	-	-	287.6
<b>C. Computers</b>														
1. CPU and Monitors	units	15	-	-	-	-	15	4,050	60.8	-	-	-	-	60.8
2. Laser Printers	units	4	-	-	-	-	4	2,700	10.8	-	-	-	-	10.8
3. Dot Matrix Printers	units	5	-	-	-	-	5	945	4.7	-	-	-	-	4.7
Subtotal Computers									76.3	-	-	-	-	76.3
<b>D. Faxes and Copiers</b>														
1. Copiers	units	2	-	-	-	-	2	13,500	27.0	-	-	-	-	27.0
2. Fax Machines	units	2	-	-	-	-	2	1,350	2.7	-	-	-	-	2.7
Subtotal Faxes and Copiers									29.7	-	-	-	-	29.7
E. Projectors, binding machine, etc.	amount								2.7	0.7	-	-	-	3.4
F. NEMA Office Supplies	amount	12	12	12	12	12	60	6,750	81.0	81.0	81.0	81.0	81.0	405.0
G. Furniture	amount								20.3	-	-	-	-	20.3
H. Training for NEMA Staff	md	300	300	300	300	300	1,500	100	30.0	30.0	30.0	30.0	30.0	150.0
<b>Total Investment Costs</b>									527.7	314.2	321.5	256.7	256.7	1,676.8
<b>II. Recurrent Costs</b>														
A. Management Committee	md	288	288	288	288	288	1,440	100	28.8	28.8	28.8	28.8	28.8	144.0
<b>B. Office Expenses</b>														
1. Materials and Supplies	amount								18.9	18.9	18.9	18.9	18.9	94.5
2. Telephone, Fax, etc.	amount								20.3	20.3	20.3	20.3	20.3	101.3
3. Postage, DHL, etc.	amount								8.1	8.1	8.1	8.1	8.1	40.5
4. Rent	amount								38.5	38.5	38.5	38.5	38.5	192.5
Subtotal Office Expenses									85.8	85.8	85.8	85.8	85.8	428.8
C. Vehicle Fuel and Maintenance	amount	5	7	9	9	9	39	15,525	77.6	108.7	139.7	139.7	139.7	605.5
D. Fuel and O&M for PPF/EDC Vehicles	amount	7	7	7	7	7	35	15,525	108.7	108.7	108.7	108.7	108.7	543.4
E. Motorcycle O & M	amount	2	2	2	2	2	10	1,350	2.7	2.7	2.7	2.7	2.7	13.5
F. Soc. Sec. Contribution /c	mm	12	12	12	12	12	60	1,115	13.4	13.4	13.4	13.4	13.4	66.9
<b>Total Recurrent Costs</b>									316.9	348.0	379.0	379.0	379.0	1,802.0
<b>Total</b>									844.6	662.2	700.5	635.7	635.7	3,478.8

/a Table includes office, travel and support expenses for all NEMA Divisions.

/b Estimated costs of travel to Districts by NEMA senior staff (\$2,000/professional/year).

/c Employer contribution accounts for 10 percent of salaries.

UGANDA  
 ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING  
 Table 2 Planning, Policy and Legal  
 Detailed Costs  
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost ('000)					Total	
		1996	1997	1998	1999	2000		Total	1996	1997	1998	1999		2000
<b>I. Investment Costs</b>														
<b>A. Development of Environmental Regulations</b>														
Dir., Planning, Policy and Legal Division	mm	12	12	12	12	12	60	1,688	20.3	20.3	20.3	20.3	20.3	101.3
NRM Specialist-Soils and Landuse	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
NRM Specialist-Biodiversity and Range	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
Environmental Economist	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
Senior Env. Lawyer	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
Environmental Lawyer	mm	12	12	12	12	12	60	965	11.6	11.6	11.6	11.6	11.6	57.9
Travel Allowances	amount								12.0	12.0	12.0	12.0	12.0	60.0
<b>Total Investment Costs</b>									<b>107.5</b>	<b>107.5</b>	<b>107.5</b>	<b>107.5</b>	<b>107.5</b>	<b>537.4</b>
<b>II. Recurrent Costs</b>														
A. Soc. Sec. Contribution /a	amount	12	12	12	12	12	60	796	9.6	9.6	9.6	9.6	9.6	47.8
<b>Total Recurrent Costs</b>									<b>9.6</b>	<b>9.6</b>	<b>9.6</b>	<b>9.6</b>	<b>9.6</b>	<b>47.8</b>
<b>Total</b>									<b>117.0</b>	<b>117.0</b>	<b>117.0</b>	<b>117.0</b>	<b>117.0</b>	<b>585.2</b>

/a Approximately 10 percent of Salaries

UGANDA  
ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING  
Table 3: Information Center and System Development (NEIC)  
Detailed Costs  
(US\$)

Unit	Quantities					Total	Unit Cost	Base Cost ('000)					Total	
	1996	1997	1998	1999	2000			1996	1997	1998	1999	2000		
<b>I. Investment Costs</b>														
<b>A. NEIC Environmental Information System</b>														
<b>1. Development Salaries</b>														
Dir. Information and Monitoring Division	mm	12	12	12	12	12	1,688	20.3	20.3	20.3	20.3	20.3	101.3	
Env. Info. Systems Specialist	mm	12	12	12	12	12	1,326	15.9	15.9	15.9	15.9	15.9	79.6	
Env. Info. Systems Analyst	mm	12	12	12	12	12	60	965	11.6	11.6	11.6	11.6	57.9	
Cartographer (contracted)	mm	12	12	12	12	12	60	663	8.0	8.0	8.0	8.0	36.8	
Information Communications Specialist	mm	12	12	12	12	12	60	663	8.0	8.0	8.0	8.0	36.8	
GIS/Remote Sensing Specialist	mm	24	24	24	-	-	72	965	23.2	23.2	23.2	-	66.5	
GIS/Remote Sensing Assistant	mm	12	12	12	12	12	60	663	8.0	8.0	8.0	8.0	36.8	
Research Assistant	mm	12	12	12	12	12	60	464	5.6	5.6	5.6	5.6	27.8	
Librarian	mm	12	12	12	12	12	60	663	8.0	8.0	8.0	8.0	36.8	
Travel Allowances	amount							18.0	18.0	18.0	18.0	18.0	90.0	
Subtotal Development Salaries								126.3	126.3	126.3	103.1	103.1	585.2	
2. Specialized Equipment	amount							81.0	-	-	59.4	-	140.4	
3. Specialized Software	amount							54.0	-	-	29.6	-	83.6	
4. Technical Materials	amount							37.5	2.9	2.9	0.7	0.7	44.6	
<b>5. Consultancies</b>														
Foreign	mm	3	2	1	1	1	8	10,000	30.0	20.0	10.0	10.0	10.0	80.0
Local	mm	2	2	2	2	2	10	2,500	5.0	5.0	5.0	5.0	25.0	
Subtotal Consultancies								35.0	25.0	15.0	15.0	15.0	105.0	
<b>6. Staff Training</b>														
Foreign	amount							36.0	36.0	20.0	-	-	92.0	
Local	amount							14.0	19.0	14.0	19.0	14.0	80.0	
Subtotal Staff Training								50.0	55.0	34.0	19.0	14.0	172.0	
Subtotal NEIC Environmental Information System								363.8	208.2	178.2	228.6	132.8	1,130.7	
<b>B. NEIC Support to Districts As</b>														
District Staff	my	72	72	72	72	72	360	490	34.6	34.6	34.6	34.6	34.6	172.8
Office Equipment & Furniture	amount							114.2	114.2	-	-	-	228.4	
Kits, Posters, Communications	amount							37.0	27.1	10.6	11.2	20.5	108.3	
Subtotal NEIC Support to Districts								185.7	175.8	45.1	45.8	55.0	507.5	
<b>C. NEIC Sectoral Linkages</b>														
<b>1. Digital Mapping</b>														
Equipment	amount							94.5	-	-	-	-	94.5	
Software	amount							62.1	-	-	-	-	62.1	
Technical Assistance	amount							15.0	-	7.5	-	-	22.5	
Liaison Officer and Surveyor's Fees	amount							6.0	6.0	6.0	6.0	6.0	30.0	
Office Renovation	amount							13.0	3.9	3.9	3.9	3.9	28.6	
Subtotal Digital Mapping								190.6	9.9	17.4	9.9	9.9	237.7	
<b>2. Rehab. Geod. Network</b>														
Equipment	amount							310.5	-	-	-	-	310.5	
Technical Assistance	amount							12.0	12.0	12.0	12.0	12.0	60.0	
Subtotal Rehab. Geod. Network								322.5	12.0	12.0	12.0	12.0	370.5	
<b>3. Directorate of Agriculture</b>														
Equipment	amount							16.2	-	-	-	-	16.2	
Technical Assistance	amount							10.0	7.0	7.0	7.0	7.0	38.0	
Subtotal Directorate of Agriculture								26.2	7.0	7.0	7.0	7.0	54.2	
<b>4. MUNER Biodiversity Dir.</b>														
Equipment	amount							16.2	-	-	-	-	16.2	
Technical Assistance	amount							10.0	7.0	7.0	7.0	7.0	38.0	
Subtotal MUNER Biodiversity Dir.								26.2	7.0	7.0	7.0	7.0	54.2	
<b>5. NARO</b>														
Equipment	amount							16.2	-	-	-	-	16.2	
Technical Assistance	amount							10.0	7.0	7.0	7.0	7.0	38.0	
Subtotal NARO								26.2	7.0	7.0	7.0	7.0	54.2	
<b>6. Forestry</b>														
Equipment	amount							16.2	-	-	-	-	16.2	
Technical Assistance	amount							10.0	7.0	7.0	7.0	7.0	38.0	
Subtotal Forestry								26.2	7.0	7.0	7.0	7.0	54.2	
Subtotal NEIC Sectoral Linkages								617.9	48.9	57.4	49.9	49.9	625.0	
Total Investment Costs								1,187.4	434.9	280.7	322.5	237.7	2,463.2	
<b>II. Recurrent Costs</b>														
<b>A. Soc. Sec. Contribution</b>														
	amount	12	12	12	12	12	60	903	10.8	10.8	10.8	10.8	10.8	54.2
<b>B. NEIC Sectoral Linkages</b>														
<b>1. Rehab. Geod. Network</b>														
Other	amount							40.5	40.5	40.5	40.5	40.5	202.5	
<b>2. Directorate of Agriculture</b>														
Other	amount							16.2	16.2	16.2	16.2	16.2	81.0	
<b>3. MUNER Biodiversity Dir.</b>														
Other	amount							13.5	13.5	13.5	13.5	13.5	67.5	
<b>4. NARO</b>														
Other	amount							16.2	16.2	16.2	16.2	16.2	81.0	
<b>5. Forestry</b>														
Other	amount							16.2	16.2	16.2	16.2	16.2	81.0	
Subtotal NEIC Sectoral Linkages								102.6	102.6	102.6	102.6	102.6	513.0	
Total Recurrent Costs								113.4	113.4	113.4	113.4	113.4	567.2	
Total								1,300.8	548.3	394.1	436.0	351.2	3,030.4	

1a. Expenditures to be allocated equally to the Districts of Kabale, Arua, Mbarara, Mbale, Kaseso and Kampala

UGANDA  
 ENVIRONMENTAL MANAGEMENT CAPACITY  
 Table 4. Monitoring (NEIC) <sup>a</sup>  
 Detailed Costs  
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost ('000)						
		1996	1997	1998	1999	2000		Total	1996	1997	1998	1999	2000	Total
<b>I. Investment Costs</b>														
<b>A. Personnel</b>														
Env. Impact Assess. Specialist	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
Env. Standards Specialist	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
Env. Inspectors	mm	12	12	24	24	24	96	965	11.6	11.6	23.2	23.2	23.2	92.6
Travel Allowances	amount								6.0	6.0	8.0	8.0	8.0	36.0
<b>Total Investment Costs</b>									<b>49.4</b>	<b>49.4</b>	<b>63.0</b>	<b>63.0</b>	<b>63.0</b>	<b>287.8</b>
<b>II. Recurrent Costs</b>														
Soc. Sec. Contribution	amount	12	12	12	12	12	60	458	5.5	5.5	5.5	5.5	5.5	27.5
<b>Total Recurrent Costs</b>									<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>27.5</b>
<b>Total</b>									<b>54.9</b>	<b>54.9</b>	<b>68.5</b>	<b>68.5</b>	<b>68.5</b>	<b>315.2</b>

<sup>a</sup> The monitoring function is under the Information Center, but is costed separately for illustration.

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 ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING  
 Table 5. Education, Training and Program Promotion  
 Detailed Costs  
 (US\$)

	Unit	Quantities					Total	Unit Cost	Base Cost ('000)					Total
		1996	1997	1998	1999	2000			1996	1997	1998	1999	2000	
<b>I. Investment Costs</b>														
A. Orientation Workshops	No.	6	-	-	-	-	6	10,000	60.0	-	-	-	-	60.0
B. Dir., Education, Awareness and Training Division	mm	12	12	12	12	12	60	1,688	20.3	20.3	20.3	20.3	20.3	101.3
C. Environmental Education Specialist	mm	12	12	12	12	12	60	1,328	15.9	15.9	15.9	15.9	15.9	79.6
D. Public Awareness Program Officer	mm	12	12	12	12	12	60	985	11.6	11.6	11.6	11.6	11.6	57.9
E. Community Training Officer	mm	12	12	12	12	12	60	985	11.6	11.6	11.6	11.6	11.6	57.9
F. Graphic Artist	mm	24	24	24	24	24	120	863	15.9	15.9	15.9	15.9	15.9	79.6
G. Sub-Office for District Level Trainers														
Computers	no.	2	-	-	-	-	2	4,725	9.5	-	-	-	-	9.5
Printer	no.	1	-	-	-	-	1	3,375	3.4	-	-	-	-	3.4
Other Office Equipment and Furniture	amount								6.1	1.4	1.4	1.4	1.4	11.5
Extra Office Space	months	12	12	12	12	12	60	550	6.6	6.8	6.6	6.6	6.6	33.0
Subtotal Sub-Office for District Level Trainers									25.5	8.0	8.0	8.0	8.0	57.3
H. Travel Allowances	amount								12.0	12.0	12.0	12.0	12.0	60.0
<b>Total Investment Costs</b>									172.7	95.2	95.2	95.2	95.2	553.5
<b>II. Recurrent Costs</b>														
A. Soc. Sec. Contribution	amount	12	12	12	12	12	60	627	7.5	7.5	7.5	7.5	7.5	37.6
<b>Total Recurrent Costs</b>									7.5	7.5	7.5	7.5	7.5	37.6
<b>Total</b>									180.3	102.7	102.7	102.7	102.7	591.1

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 ENVIRONMENTAL MANAGEMENT CAPACITY BU

Table 6. Administration and Finance

Detailed Costs

	Unit	Quantities					Total	Unit Cost	Base Cost ('000)					
		1996	1997	1998	1999	2000			1996	1997	1998	1999	2000	Total
<b>I. Investment Costs</b>														
A. Dir., Admin. and Finance Division	mm	12	12	12	12	12	60	1,688	20.3	20.3	20.3	20.3	20.3	101.3
B. Personnel Officer	mm	12	12	12	12	12	60	965	11.6	11.6	11.6	11.6	11.6	57.9
C. Accountant	mm	12	12	12	12	12	60	1,326	15.9	15.9	15.9	15.9	15.9	79.6
D. Accounts and Records Assistants	mm	24	24	24	24	24	120	663	15.9	15.9	15.9	15.9	15.9	79.6
E. Travel Allowances	amount								10.0	10.0	10.0	10.0	10.0	50.0
<b>Total Investment Costs</b>									73.7	73.7	73.7	73.7	73.7	368.3
<b>II. Recurrent Costs</b>														
A. Soc. Sec. Contribution	amount	12	12	12	12	12	60	531	6.4	6.4	6.4	6.4	6.4	31.9
<b>Total Recurrent Costs</b>									6.4	6.4	6.4	6.4	6.4	31.9
<b>Total</b>									80.0	80.0	80.0	80.0	80.0	400.2

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 ENVIRONMENTAL MANAGE  
 Table 7. Study  
 Detailed Costs  
 (US\$)

Unit	Quantities					Unit Cost	Base Cost ('000)						
	1996	1997	1998	1999	2000		Total	1996	1997	1998	1999	2000	Total
<b>I. Investment Costs</b>													
A. To Be Determined	amounts							-	250.0	250.0	-	-	500.0
<b>Total</b>								-	250.0	250.0	-	-	500.0



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 ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING  
 Table 11. Local Level Capacity Building  
 Detailed Costs  
 (US\$)

	Unit	Quantities					Total	Unit Cost	Base Cost ('000)					Total
		1996	1997	1998	1999	2000			1996	1997	1998	1999	2000	
<b>I. Investment Costs</b>														
<b>A. Cap. Build Packages</b>														
1. District Initial Package	no.	3	3	-	-	-	6	38,500	115.5	115.5	-	-	-	231.0
2. Sub-County Initial Package	no.	12	18	12	12	12	66	2,800	33.6	50.4	33.6	33.6	33.6	184.8
<b>3. District Follow-up Package</b>														
DEC and DTPC Training	no.	-	3	6	6	6	21	7,500	-	22.5	45.0	45.0	45.0	157.5
DEO Training	no.	-	1	1	1	1	4	8,300	-	8.3	8.3	8.3	8.3	33.2
Subtotal District Follow-up Package									-	30.8	53.3	53.3	53.3	190.7
4. Sub-County Follow-up Package	no.	-	12	30	42	54	138	1,500	-	18.0	45.0	63.0	81.0	207.0
Subtotal Cap. Build Packages									149.1	214.7	131.9	149.9	167.9	813.5
B. Regional Training for District Officials	amount	-	18	-	18	-	36	2,800	-	50.4	-	50.4	-	100.8
C. Technical Assistance - NRM	amount	3	6	6	6	6	27	2,000	6.0	12.0	12.0	12.0	12.0	54.0
D. Consultation/Monitoring	amount	3	6	6	6	6	27	1,800	5.4	10.8	10.8	10.8	10.8	48.6
E. Travel Per Diem (Dist. to S-C)	amount	3	6	6	6	6	27	1,920	5.8	11.5	11.5	11.5	11.5	51.8
<b>Total</b>									<b>166.3</b>	<b>299.4</b>	<b>166.2</b>	<b>234.6</b>	<b>202.2</b>	<b>1,068.7</b>

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Table 12. Support to Dist./Micro-Projects

Detailed Costs

	Unit	Quantities					Total	Unit Cost	Base Cost ('000)					Total
		1996	1997	1998	1999	2000			1996	1997	1998	1999	2000	
<b>I. Investment Costs</b>														
<b>A. Support to Dist. &amp; S-C</b>														
1. 4-WD Vehicles	no.	6	-	-	-	-	6	40,500	243.0	-	-	-	-	243.0
2. Bicycles	no.	24	36	24	24	24	132	110	2.6	4.0	2.6	2.6	2.6	14.5
3. Computer Workstations /s	no.	6	-	-	-	-	6	8,100	48.6	-	-	-	-	48.6
4. Photocopiers & Typewriters	no.	6	-	-	-	-	6	4,725	28.4	-	-	-	-	28.4
<b>5. Supplies</b>														
District	no.	3	6	6	6	6	27	1,620	4.9	9.7	9.7	9.7	9.7	43.7
Sub-County	no.	12	30	42	54	66	204	324	3.9	9.7	13.6	17.5	21.4	66.1
<b>Subtotal Supplies</b>									<b>8.7</b>	<b>19.4</b>	<b>23.3</b>	<b>27.2</b>	<b>31.1</b>	<b>109.8</b>
<b>6. Rehabilitation of Offices</b>														
District	no.	3	3	-	-	-	6	13,000	39.0	39.0	-	-	-	78.0
Sub-County	no.	12	18	12	12	12	66	3,900	46.8	70.2	46.8	46.8	46.8	257.4
<b>Subtotal Rehabilitation of Offices</b>									<b>85.8</b>	<b>109.2</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>335.4</b>
<b>Subtotal Support to Dist. &amp; S-C</b>									<b>417.1</b>	<b>132.6</b>	<b>72.8</b>	<b>76.7</b>	<b>80.5</b>	<b>779.7</b>
<b>B. Micro-Projects: Sub-County Level</b>	no.	12	18	24	30	24	108	11,000	132.0	198.0	264.0	330.0	264.0	1,188.0
<b>Total Investment Costs</b>									<b>549.1</b>	<b>330.8</b>	<b>338.8</b>	<b>406.7</b>	<b>344.5</b>	<b>1,967.7</b>
<b>II. Recurrent Costs</b>														
<b>A. Vehicle O&amp;M</b>														
amount		3	6	6	6	6	27	15,525	46.6	93.2	93.2	93.2	93.2	419.2
<b>Total Recurrent Costs</b>									<b>46.6</b>	<b>93.2</b>	<b>93.2</b>	<b>93.2</b>	<b>93.2</b>	<b>419.2</b>
<b>Total</b>									<b>595.7</b>	<b>423.8</b>	<b>429.9</b>	<b>499.8</b>	<b>437.7</b>	<b>2,386.9</b>

Some required peripherals are provided under NEMA NEIC support to Districts.

**Planned Major Procurement Packages**

<b>Package No.</b>	<b>Total Estimated Cost (US\$ million)</b>	<b>Description</b>	<b>Procurement Method</b>
1 \a	0.3	Works-District offices rehab.	NCB
2 \b	0.4	Vehicles	ICB
3 \b	0.9	Office Equipment	ICB
4 \b	0.3	Materials and Supplies	NCB
5	0.1	Software	NCB
6 \b	0.5	T.A.-Environmental Studies	NCB
7 \c	<u>0.1</u>	PPF-Vehicles	NCB

**Total Packages 2.6**  
(planned and actual)

**Notes:**

\a The civil works total will be divided among the six target districts resulting in six packages of slightly over US\$50,000 each.

\b These packages will be procured in smaller lots (vehicles-2 lots, office equipment-4 or 5, materials and supplies-3 or 4, and studies-5 or more mini-studies) and average lot size will conform to thresholds for the designated procurement method.

\c Already procured.

All amounts are exclusive of taxes and duties.



## **Activities Carried Out during the Project Preparation**

### **Introduction**

1. To prepare the National Environmental Action Plan (NEAP), eight task forces were set up in January, 1991, covering:-

- (i) National Environmental Policy, Legislation and Institutional Arrangements;
- (ii) National Environmental Education, Research and Human Resources Degradation;
- (iii) Land Management: Agriculture, Livestock and Rangelands;
- (iv) Wetlands: Water Resources, Fisheries and Aquatic Biodiversity;
- (v) Terrestrial Biodiversity: Forestry, Wildlife and Tourism;
- (vi) Population Health and Human settlements;
- (vii) Energy and Climate Change; and,
- (viii) Mining, Industry Hazardous Material and Toxic Chemicals.

2. There followed an intensive period of consultation following regional workshops at which all the districts were represented. From this process a National Environmental Policy was developed and a National Environment Action Plan (NEAP), developed.

3. The process identified capacity building at both the national and district levels as a priority part of the investment program and the proposed Environmental Management Capacity Building Project (EMCBP), was conceived as the first phase of the implementation of the NEAP.

### **The Preparation Phase**

4. The Government established a Steering Committee to support four teams as part of project preparation.

#### **The Institutional Team**

The Institutional Team (Team A), focussed on the establishment of an institutional structure to monitor the state of the environment, advise on environmental policy and legislation, assist in the coordination and integration of environmental concerns in development, regulations, promote environmental awareness and enhance the Districts' capacity for environmental planning and management.

### **District Environmental Management**

As part of the Government's decentralization policy, this component was designed to assist selected districts with severe environmental problems to obtain benefits and move towards long term sustainability of natural resources. Kabale was selected as the first district where there is rapid population growth, relatively slow agricultural growth and stagnating income levels resulting from diminishing farmland per household and continuous cultivation with no fallows. The loss of tree cover had also resulted in soil erosion and loss of soil fertility. The Team (Team B), sought to identify ways in which the District could enhance their capacity to interact with communities in planning and implementing a strategy for natural resource management, integrate development and conservation objectives, enlist NGOs and private sector institutions in support and ensure a favorable incentive framework. One sub-county -Bufundi - was selected.

### **Community Environment Management**

Arua District was identified as facing less severe, but nonetheless serious environmental challenges and the Team (Team C), sought to identify micro-projects to meet challenges selected by the District and/or NGO staff in close inter-action with the communities concerned. Environmental problems in Arua are widely scattered and a number of projects were identified. The majority however fell outside the current proposed concept of small-scale community based natural resource management projects.

### **Studies**

A series of studies were identified by the fourth Team (Team D), which generically aimed to (i) identify historical and more recent research , surveys and studies, the analysis of which would allow a rapid assessment of degradation: (ii) repeat historical studies where this would illustrate the rate of degradation: (iii) put in place baseline studies which overtime would allow an objective assessment of what was happening.

### **Costs**

5. Even after extensive scaling back, the programs proposed by the latter three teams indicated a level of funding well in excess of the proposed IDA project. Details of the proposals are given in Annexes 4 and 5.

**Project Preparation Facility**  
**Accounts to November 30, 1994**  
(in US\$)

<b>Expenditure Description</b>	<b>Category</b>	<b>Approved Advance</b>	<b>Actual Expenditure</b>	<b>Balance</b>
Initial Deposit			50,000	(50,000)
TA and Training	I	433,675	146,633	287,041
Vehs. and Equipment	II	82,175	85,998	(3,823)
Operating Costs	III	11,200	25,495	(14,295)
Start-Up Activities	IV	120,000	-	120,000
Contingencies	V	27,950	-	27,950
<b>Total</b>		<b>675,000</b>	<b>308,126</b>	<b>366,874</b>

Note:- No expenditures have been occurred since November 30, 1994





Estimated Schedule of Disbursements by IDA Fiscal Year/Semester 1/, 2/

(US\$,million)

FY	Sem- ester	Estimated Disbursement <u>3/</u>	Est., Cumul., Disbursement	Cum., Disb., IDA Credit (percent)	Cum., Disb., Std., Profile (percent)
94	II	0.3	0.3	3	
95	I	0.4	0.7	6	
95	II				
96	I				
96	II	1.5	2.2	19	0
97	I	1.4	3.6	31	6
97	II	1.3	4.9	42	10
98	I	1.1	6.0	51	14
98	II	1.2	7.2	61	18
99	I	1.0	8.2	69	26
99	II	1.0	9.2	78	34
00	I	0.9	10.1	86	38
00	II	0.9	11.0	93	42
01	II	0.8	11.8	100	54

1/ Credit effectiveness, completion and closing dates are assumed to be October 31, 1995, December 31, 2000, and June 30, 2001

2/ Source: Standard Disbursement Profile for Uganda, Agriculture Sector (June, 1994). No data is available for environmental projects in Uganda

3/ IDA FY94, Semester II, and FY95, Semester I, show PPF disbursements

## Estimated Government Disbursements by IDA Fiscal Year

FY	Semester <u>2/</u>	Est., Disbursement	Est., Cumul., Disbursement
94	II		
95	I		
95	II		
96	I		
96	II	0.37	0.37
97	I	0.30	0.67
97	II	0.31	0.98
98	I	0.27	1.25
98	II	0.27	1.52
99	I	0.34	1.86
99	II	0.34	2.20
00	I	0.41	2.61
00	II	0.41	3.02
01	I	0.42	3.44

Note:- Including duties and taxes

## Indicators of Performance

## Institutional Component

Component Activities	Indicators	PY				
		1	2	3	4	5
Annual Work Plan	Completion on time	*	*	*	*	*
Annual Review Workshop	Completed on schedule	*	*	*	*	*
Recruitment of Senior Staff	Senior staff recruited and in post	*				
Training Needs Assessment	Training needs assessment incorporated in AWP	*				
Training Program	Completion of annual training program	*	*	*	*	*
Workshops for Line Ministries	Held on Schedule	*				
Establish Horizontal Linkages	Network in place	*				
Establish Vertical Linkages	Network in place	*				
Training Needs Assessment (Pilot Districts)	Incorporated in AWP	*				
Training (Pilot Districts)	Completed		*	*	*	*
Personnel, Accounts and MIS	Systems in place	*				
Annual Report	Submitted on time					
Audit	Submitted on time	* (PPF)	*	*	*	*
State of the Environment Report	Completed		*		*	

**Indicators of Performance****Community and District Environmental Capacity Building Component**

Component Activities	Indicators	PY				
		1	2	3	4	5
District Facilitators	Number Trained	6	6			
PRAs	Number of Parish PRAs	12	18	12	12	12
District Environmental Action Plans	Number of Plans Finished and Submitted		3	3	3	3
Sub-County Environmental Action Plans	Number of Plans Finished and Submitted		3	3	3	3
Additional District Training by NEMA	Number of Districts Covered			tbd after MTR		
Information Systems	Number Established and Working	3	3			
Micro-Projects Funded	Number Funded	12	18	12	12	12

## **Annual Work Plan, Project Supervision and Implementation**

### **Implementation Plan**

1. The overall project scope and strategy includes the preparation of a Project Implementation Manual (PIM), which was essentially finalized during project processing as a joint participatory exercise between the NEAP/NEMA Transition Team and mission members. It has been prepared for each of the two components.
2. The PIM sets out the overall arrangements for project coordination and monitoring, as well as the procurement plan, the training plan and overall financial and management and control procedures. It also outlines monitorable indicators, see also annex 12, to enable project management to monitor project progress against the Annual Work Plan (AWP).

### **Annual Work Plan and Budget**

4. Based on the PIM, the AWP and Budget would, after approval by the Management Board, be submitted to IDA for review and approval no later than May 31 of the preceding year. The budget should be submitted as a draft, given that the proposed budget allocations will only be made available when the Minister of Finance and Economic Planning presents the budget in July and final approval of the budget is given in September.
5. The AWP and Budget should include:-
  - (i) A brief summary of progress to March 31 of the current year, constraints and actions taken to eliminate the constraints;
  - (ii) An overall summary of the one-year project objectives and measurable indicators against which progress can be measured;
  - (iii) Details of proposed expenditures by quarter, sources of funding (Government, IDA and other sources), including detailed cash flow requirements from Government with target dates for the release of funds;
  - (iv) The procurement plan, indicating method of procurement, timing and estimated costs;
  - (v) The training plan:-
 

For local training, specific details will be provided on the type of training, location, date, training needs assessment, number of persons to be trained, and trainers/institutions identified by name and area of relevant experience;

For external (overseas), training, the AWP will identify the

trainees, the training needs assessment relative to the project, the areas of study, the timing and period of training, its place and the estimated cost.

- (vi) Staff deployment on project activities including draft individual annual work plans for key officials;
- (vii) Schedules of meetings for the Policy Committee and the Management Board with programs for translating decisions into actions and the monitoring arrangements; and
- (viii) Indications of the technical assistance that might be needed on IDA supervision mission to support project implementation.

### **Supervision**

6. The schedule of supervision missions, given in Table 1, does not include supervision time spent on the review of progress reports, procurement actions, correspondence and IDA internal review of supervision reports and their collation into a portfolio review, etc. This is estimated at four staff weeks per year during the project implementation period.

### **Borrower Contribution to Supervision**

7. The Management Board will submit to IDA, for review and comment, brief quarterly reports on the progress of project implementation during the first two years of the project and thereafter every six months. These reports will be submitted to IDA no later than one month after the end of the reporting period.

8. The Executive Director, NEMA, will be responsible for coordinating arrangements for IDA supervision missions and for providing information required by the mission. One month prior to a supervision mission NEMA management will indicate to IDA any specific issues that will require resolution during the mission. For field trips supervision missions will be accompanied by responsible officers of NEMA.

9. The mission Wrap-Up meetings will be chaired by the Executive Director of NEMA or his nominated deputy and arrangements for these meetings would be made by the Executive Director's office, including issuing the invitations and distributing the mission's aide-memoire.

## Provisional Schedule of IDA Supervision Missions

Approximate Date	Activity	Expected Skill Requirements	Staff Input (SW)
PYI 12/95	Review of progress inc. inter-linkages to USAID start-up support work	Task Manager Institutional Specialist Financial Analyst Community Development Specialist	12
06/96	Supervision Mission	Task Manager Community Development Specialist	6
PYII 12/96	Supervision Mission	Task Manager Environmentalist	6
06/97	Supervision Mission	Task Manager Training Specialist	7
PYIII 12/97	Supervision Mission	Task Manager	4
03/98	Mid-Term Review	Task Manager Community Development Specialist Financial Analyst Environmentalist	12
PYIV 12/98	Supervision Mission	Task Manager	3
06/99	Supervision Mission	Task Manager Community Development Specialist	9
PYV 12/99	Supervision Mission	Task Manager Environmentalist	6
06/00	Supervision Mission	Task Manager Community Development Specialist Financial Analyst Environmentalist	12
PYVI 12/10	Supervision Mission	Task Manager	3
04/01	Project Implementation Report	Team Leader Financial Analyst Institutional Development Specialist Community Development Specialist Environmentalist	12





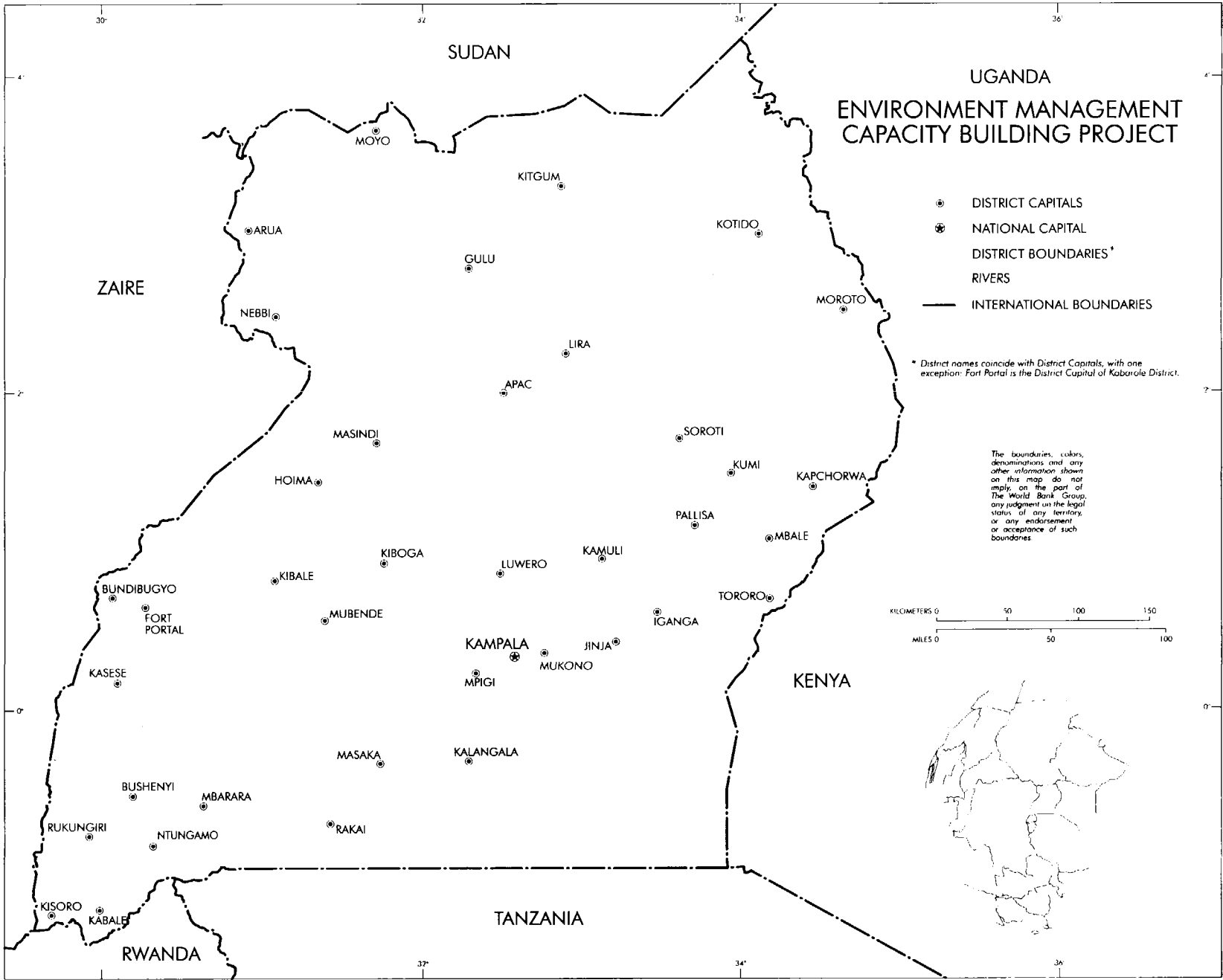
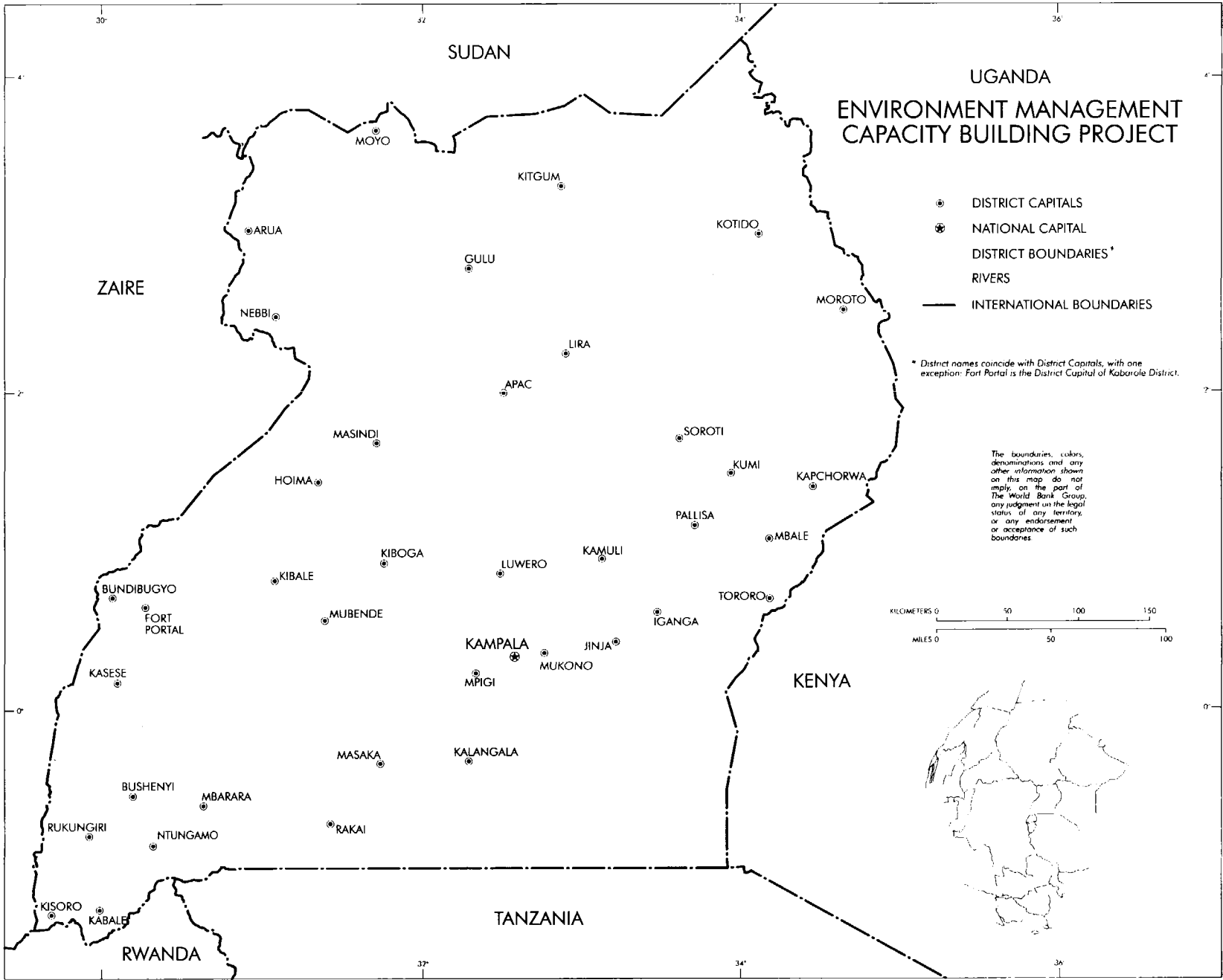
**Documents in the Project File**  
**I - Project Identification and Preparation Documents**

Ref	Document	Date
1	Issues Papers on:- - Environmental Policy, Legislation and Institutional Arrangements - Environmental Education, Research, and Human Resource Development - Land Management: agriculture, Livestock and Rangelands - Wetlands, Water and its Resources: Aquatic Biodiversity - Forestry, Wildlife and Tourism: Terrestrial Biodiversity - Mining, Industry, hazardous Materials and Toxic Chemicals - Population, Health and Human Settlements - Energy and Climate Change - Karamoja - Environmental Information Systems - Topic papers on the above (except the first listed)	1994
2	The National Environmental Management Policy Framework	1993
3	The National Environmental Policy	1993
4	Framework of the Environmental Legislation	1994
5	Environmental Management Bill, 1994	1994
6	Institutional Framework for Environmental Management in Uganda	1994
7	Framework for Environmental Impact Assessments for Uganda	
8	Guidelines for Environmental Management at District Level	
9	The State of Environment Report for Uganda, 1994	10/94
10	The Environmental Investment Program, Parts A and B	
11	Design and Implementation of a District-based Environmental Management Information System	
12	Task Analysis, Training Needs Assessment and Short-Term Training Program for District Environmental Officers	
13	Baseline Review of the Department of Environmental/Planning Workshop	
14	Preparation Document, Vol I      - Introduction and Summary Preparation Document, Vol II      - District Environment Mgt. - Community Environment Mgt. Preparation Document, Vol III      - The National Environment Management Authority -Environmental and Natural Resource Degradation Studies	10/94
15	Monitoring and Evaluation System for the National Environmental Action Plan	
16	Uganda Guidelines for the Development of Environmental Standards	
17	Decentralizing Natural Resource Management in Uganda Draft Guidelines for Environmental Management at District and Community Levels	11/94

**Implementation Documents and Working Papers**

<b>Ref</b>	<b>Document</b>	<b>Date</b>
1	Detailed Cost Tables	01/95
2	Implementation Plan	Under Ppn.
3	GOU Comments on the White Cover SAR	1/95
4	Job Descriptions for NEMA	10/94
5	Manual on Policies, Regulations and Conditions of Service for NEMA (draft under revision)	01/95 Version I
6	Third Annual Work Plan: Policy, Planning and Institutional Development for the Action Program for the Environment	12/94

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