

**REPORT ON THE STATE OF
ENVIRONMENTAL EDUCATION AND
AWARENESS IN UGANDA**

PRESENTED TO

**NILE BASIN INITIATIVE
NILE TRANSBOUNDARY ENVIRONMENT ACTION PLAN**

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TABLE OF CONTENTS

TABLE OF CONTENTS	I
ACKNOWLEDGEMENTS	IV
ACRONYMS	V
OPERATIONAL DEFINITIONS	VII
EXECUTIVE SUMMARY	VIII
CHAPTER ONE	1
<u>1.0 Introduction.....</u>	<u>1</u>
1.1 <i>Facts and Issues about Uganda.....</i>	<i>1</i>
1.2 <i>Environment versus Sustainability.....</i>	<i>3</i>
1.3 <i>Environment and Natural Resources Use in Uganda.....</i>	<i>3</i>
1.4 <i>Environmental Issues in Uganda.....</i>	<i>4</i>
1.5 <i>What Uganda has done to curb Environmental Degradation.....</i>	<i>6</i>
1.6 <i>Historical Evolution of EE&A in Uganda.....</i>	<i>8</i>
CHAPTER TWO	12
<u>2.0 Methodology of the Study</u>	<u>12</u>
2.1 <i>Study Objectives.....</i>	<i>12</i>
2.2 <i>Methodology of the Study.....</i>	<i>13</i>
CHAPTER THREE	15
<u>3.0 Policies, Legal and Institutional Framework for EE&A in Uganda</u>	<u>15</u>
3.1 <i>Uganda’s Signatory to International Environmental Conventions, Protocols and Treaties</i>	<i>15</i>
3.2 <i>Uganda’s Policies and Laws on EE&A.....</i>	<i>15</i>
3.3 <i>Institutional Co-ordination and Linkages for EE&A.....</i>	<i>19</i>
3.3.1 <i>Statutory Functions of NEMA.....</i>	<i>19</i>
CHAPTER FOUR.....	22
<u>4.0 Formal Environmental Education in Uganda</u>	<u>22</u>
4.1 <i>The Basis for Formal EE in Uganda</i>	<i>22</i>
4.2 <i>Formulation of the National EE Strategy for the Formal Sector</i>	<i>22</i>
4.3 <i>Current Uganda’s Educational System</i>	<i>23</i>
4.4 <i>EE Achievements in Primary and Secondary Schools.....</i>	<i>23</i>
4.5 <i>Environmental Programs/Projects/Activities within the SEEP</i>	<i>26</i>
4.6 <i>EE Learning Materials</i>	<i>27</i>
4.7 <i>EE Teaching Methods.....</i>	<i>29</i>
CHAPTER FIVE	30
<u>5.0 EE&A In Tertiary Institutions</u>	<u>30</u>

5.1	<i>EE & A in Universities.....</i>	30
5.2	<i>EE & A in other Tertiary Institutions</i>	31
5.3	<i>Environmental Projects in Tertiary Institutions</i>	33
CHAPTER SIX		35
6.0	<u>Non-Formal Environmental Education.....</u>	35
6.1	<i>Development of the Strategy and Action Plan</i>	35
6.2	<i>Achievements of Non-Formal EE and Activities.....</i>	35
CHAPTER SEVEN.....		38
7.0	<u>Environmental Public Awareness and Reporting</u>	38
7.1	<i>Introduction.....</i>	38
7.2	<i>Developing the Public Awareness Strategy.....</i>	38
7.3	<i>Formation of Environmental Journalists Associations.....</i>	38
7.3.2	<i>RUDMEC – Rural Development Media Communications</i>	39
7.4	<i>Radio Programs and Messages in Different Languages</i>	40
7.5	<i>Television Programs</i>	40
7.6	<i>Public Lectures</i>	40
7.7	<i>Public Hearings</i>	40
7.8	<i>World Environment Day</i>	41
7.9	<i>Newsletter: NEMA News.....</i>	41
7.10	<i>Environmental Public Awareness by the Districts.....</i>	41
7.11	<i>Public Awareness by other partners</i>	42
CHAPTER EIGHT.....		43
8.0	<u>Recent Programs, Projects and Planned EE and Outreach Programs</u>	43
8.1	<i>Formal EE Programs/Projects/Activities</i>	43
8.2	<i>Non –Formal EE Programs/ Projects/Activities.....</i>	44
8.3	<i>Public Awareness Programs/ Projects/Activities</i>	45
CHAPTER NINE		47
9.0	<u>Gaps, Constraints and Opportunities for Transboundary EE and Outreach Programs</u>	47
9.1	<i>Identified Gaps in the Current EE & A Programs.....</i>	47
9.2	<i>Constraints to the Current EE & A Programs.....</i>	48
9.3	<i>Opportunities for Transboundary EE And Outreach Programs.....</i>	50
CHAPTER TEN.....		53
10.0	<u>Lessons Learned around EE&A Project Experiences.....</u>	53
10.1	<u>Lessons Learned.....</u>	53
CHAPTER ELEVEN.....		55
11.0	<u>Smart Indicators for EE&A in Uganda.....</u>	55
11.1	<i>Indicators for Formal EE.....</i>	55
11.2	<i>Indicators for Non – Formal EE and Community Training</i>	55
11.3	<i>Indicators for Public Awareness and Reporting.....</i>	56
CHAPTER TWELVE		57

12.0	Conclusions and Recommendations	57
12.1	Conclusions.....	57
12.2	Recommendations	59
REFERENCES		64
APPENDICES		66
Appendix 1a:	CHEACKLIST for Tertiary Institutions	66
Appendix 1b:	CHEACKLIST for Secondary Schools.....	66
Appendix 1c:	CHEACKLIST for Media Houses	67
Appendix 1d:	GUIDING Questions for Community members & groups.(discussion)	67
Appendix 1e:	CHEACKLIST for NGOs, CBOs & Agencies.	67
Appendix 1f:	CHEACKLIST for Government Ministry / Local Gov. Departments ...	68
Appendix 2:	International protocol, conventions, treaties signed by Uganda.	69
Appendix 3:	List of respondents interviewed	70
Appendix 5:	Aims of the International Environmental Education Program.....	72
Appendix 6:	Recommendations made at the International Workshop on Environmental Education during the Rio Earth Summit, 1992	73
Appendix 7:	Selected human development indicators in Uganda 1980 and 1998	74
Appendix 7:	EE & A Coordination structures	76
Appendix 10:	Education Statistics for Primary and Secondary School in Uganda	77

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ACRONYMS

ACORD	- Agency for Cooperation and Research in Development
CBO	- Community Board Organisation
CCTs	- Centre Coordinating Tutors
CIDA	- Canadian International Development Agency
D. Env. O	- District Environment Officer
EE	- Environment Education
EE&A	- Environment Education and Awareness
EJAU	- Environmental Journalists Association of Uganda
GoU	- Government of Uganda
GTZ	- German Technical Cooperation
IEEP	- International Environmental Education Programme
IFDI	- Integrated Family Development Initiatives
IUCN	- International Union for the Conservation of Nature
KAPs	- Knowledge Attitudes and Practices
KOEE	- Kenyan Organisation for Environmental Education
LEC	- Local Environment Officer
MDG	- Millennium Development Goal
MFPEd	- Ministry of Finance Planning and Economic Development
MUIENR	- Makerere Institute of Environment and Natural Resources
MUK	- Makerere University Kampala
NAADS	- Natural Agricultural Advisory Services
NAPE	- National Association of Professional Environmentalists
NARO	- Natural Agricultural Research Organisation
NBD	- Nile Basin Discourse
NBI	- Nile Basin Initiative
NCDC	- National Curriculum Development Centre
NEAP	- National Environment Authority Plan
NEMA	- National Environment Management Authority
NEMP	- National Environment Management Policy
NES	- National Environment Statute
NGO	- Non-Governmental Organisation
NTC	- National Teachers College
PMA	- Plan for Modernisation of Agriculture

PTC	- Primary Teachers College
REAL	-Regional Environmental Learning
RUDMEC	- Rural Development and Media Environment Communication
SEEP	- School EE Program
SOER	- State of Environment Report
TEA	- Transboundary Environment Analysis
TEAP	- Transboundary Environment Action Plan
TOR	- Terms of Reference
TOT	- Trainer of Trainers
UMA	- Uganda Manufacturers Association
UNCED	- United Nations Conference on Environment and Development
UNEB	- Uganda National Examination Board
UNEP	- United Nations Environment Programme
USAID	- United States Agency for International Development
UWA	- Uganda Wildlife Authority
WFP	- World Food Program
RUDMEC	- Rural Development and Media Environment Communication
IFDI	- Integrated Family Development Initiatives
PMA	- Plan for Modernisation of Agriculture
UMA	- Uganda Manufacturers Association
USAID	- United States Agency for International Development
TEA	- Transboundary Environment Analysis
NBD	- Nile Basin Discourse
NGO	- Non-Governmental Organisation
CBO	- Community Board Organisation
TOT	- Trainer of Trainers
MDG	- Millennium Development Goal
UWA	- Uganda Wildlife Authority
GTZ	- German Technical Cooperation
NEMP	- National Environment Management Policy
NES	- National Environment Statute
SOER	- State of Environment Report

OPERATIONAL DEFINITIONS

In this report,

Environmental Education is the process of recognising values and clarifying concepts in order to develop skills and attitude necessary to understand and appreciate the interdependence among man, his culture and his biophysical surrounding,

Formal Education is the studying structure with grading provision from one level to another like from Pre- primary to Primary then to Secondary up to tertiary institutions with promotion examination from one level to another.

Non – Formal Education is organised educational provision usually in response to a specific problem or situation, with a flexible non- graded structure for easy delivery of knowledge and skills to gain the required attitude or behavioural change among the target group members.

Sustainable Development is the development that meets the needs of the present generation without compromising the needs and rights of the future generation.

EXECUTIVE SUMMARY

Uganda is one of the ten countries that make up the Nile Basin Initiative (NBI). NBI is a transitional mechanism formed to promote development and fight poverty in the Basin.

In order to design comprehensive EE&A programs and activities for the basin, it is necessary to establish the current status of EE & A in each one of the ten Nile basin riparian countries. The Nile Transboundary Environment Action Plan (NTEAP), one of the eight projects under the Nile Basin Shared Vision Program (SVP), commissioned this study to establish the status of EE&A in each of the Nile Basin countries.

This report documents the process and current status of EE&A in Uganda as a contribution towards building the overall EE&A picture in the basin. It is organised in twelve chapters as follows;

Chapter one gives a brief introduction and background information about Uganda. It outlines the major environmental problems, their root causes, and how the degradation of its environment and natural resource base has contributed towards deteriorating standards of living, education, and poverty. It further discusses the country's efforts to address these problems through the implementation of e.g. Agenda 21 and other global conventions and treaties to improve the environment.

It ends with a brief account of the evolution of EE&A in Uganda and the role this has played in instituting sound management of the country's resources.

Chapter two outlines the methodology followed in this study.

Chapter three discusses the existing Law, Policy and Institutional framework that favours the implementation of EE & A programs in Uganda. It cites a number of international conferences, meetings and conventions to which Uganda is a signatory and the country's policies and actions in EE&A.

It cites the relevant provisions on EE & A in the Constitution of the Republic of Uganda, 1995, the National Environment Statute, 1995 as well as other supportive line agencies and acts. The chapter also discusses the institutional framework and coordination role by NEMA, the authority responsible for the overall management in Uganda. Through its structure and coordination mechanisms, NEMA has been able to link with 21 lead Agencies, Government Ministries, 56 districts and their lower local governments, over 700 environmental NGOs/CBOs, Academic institutions to implement EE and A Programs and activities across the country.

Chapter four focuses on formal EE in Uganda, starting with the formulation of the National Strategy for EE in the formal sector with its nine program areas and the coordination structure for implementing EE in the country, it also outlines the achievements that have been attained on the ground since 1996 when the implementation of this strategy started in the primary school and Teacher Training Colleges curriculum. The programs, projects and activities, which are being implemented under e.g. SEEP are

discussed here. Their objective, achievements and examples of schools where they are successful are also covered.

Chapter five focuses on EE in Tertiary institutions namely; Universities, Vocation and Technical Schools and Teacher Training Colleges. Makerere University, Maters degree programs in Environment and Natural Resource Management and in Environmental Education, Environmental Law. Undergraduate courses such as Bachelor of Environmental Management are offered in Public Universities as well as Private Universities such as Nkumba and Kampala International University. Many University courses include units and/or modules on Environmental Management. In teacher training colleges besides integrating EE in Syllabus, NEMA has trained CCTs, College Principals and EE coordinator tutors to integrate EE in their work plans. Kyambogo University, which is responsible for developing the training programmes and examinations of all Teacher Training and Vocational / Technical colleges in the country has integrated EE in most of its programmes. The various projects and Clubs in tertiary institutions like the MUK – NEMA internship project, Students Associations, Research Projects, etc, are also discussed.

Chapter six covers Non – Formal EE programs in Uganda. It starts starting with the formulation of the National Non – Formal EE and Community Training strategy, citing the 9 program areas and summarises the role played by the key partners in the implementation of this strategy. These include NEMA, Government Agencies through the various Ministries, Districts and Local governments, Donor Agencies, NGOs & CBOs, Local Leaders, and the community.

Chapter seven summarises the activities the Public Awareness and environmental reporting sector. It gives programme areas, which have been followed to reach the formulation of the Public Awareness strategy and the target audiences. It mentions the importance of the role played by the media, especially the over 120 FM radios countrywide in promoting desirable behavioural change in environmental and natural resource management. The key role being played by the Environment Journalist Associations, RUDMEC and EJAU are also emphasised.

Chapter eight captures the recent EE programs, projects within the basin, outlining their objective, achievements that NTEAP can learn from while scaling up their activities. The SEEP, NEMA environmental projects, Capacity building, Decentralisation of Environmental Managements and other programs, which to have achieved good results and have lessons to learn are outlined.

Chapter Nine list the gaps, constraints and opportunities for transboundary EE and out reach programs within the Basin. The gaps identified include in scaling up, actualisation of good plans into programs on the ground, insufficient IEC material, inaccessibility to information and inadequate resource allocation. The opportunities are good political will, adequate policy and institutional framework, donor good will, a boom in media houses, and a centralised educational structure which all favour transboundary EE and outreach programs in the basin.

Chapter ten is on the lessons learnt through this survey, which could be of use in scaling up EE & A activities in Uganda and the Basin. The lessons include: Communities and schools willing to under take EE activities, EE & A interventions should lead to tangible projects on the ground, Building a system, not an Individual, ‘Scaling Up’ Beyond the Pilot Stage for Project Success, Using the Power of the Media, Competitions to encourage a High Degree of Participation, Use of EE&A Materials for Success, Role of NGOs/CBOs, Decentralisation of Environmental Management.

Chapter eleven presents a set of SMART indicators that can be used in the monitoring and evaluation of EE & A activities in the formal EE, non – formal EE as well as Public Awareness programs.

Finally Chapter twelve gives the conclusions and recommendations of the study. This conclusion includes: Proper enforcement and implementation is still to be fully realised, the endorsed program areas have to a great extent been followed and implemented, but a number of programs are yet to be tackled fully, There is great improvement in the Formal, Non-Formal EE and Public Awareness sectors despite the challenges that still exist, NEMA has done a commendable job to spear head environmental activities in the country, Other lead agencies are carrying out wide reaching EE & A programs and contributing towards creating a better and sustainable environment, Donor funding and other partners who raise and chip in their own funds have supported the environment sector complementing government efforts, Although many environmental seminars and public awareness programs have been conducted, the work on the ground does not reflect these training efforts.

The recommendations include: Scaling up of EE & A should be given priority, intensive training of trainers workshops should be held at sub-counties and parishes for village trainers and change agents, simple manuals with guidelines for practical skills building should be developed, Environmental activities must move from paper and seminars on to the ground, Environmental interventionists should use women groups as entry points to achieve faster and long lasting results, Hold annual EE&A Consultative Forums, Designate a full time officer at NEMA to coordinate with NGOs, Use the National Training trainers Team to cover the whole Country quickly, Use Competitions To Build Greater Levels of Participation, Pay More Attention to Secondary Schools’ EE Program, Convene an Inter-University Conference on Integrating EE into their courses, Hold an Annual Conference for NEMA and its counterparts in the region and Basin, Integrate the Nile Basin Initiative Concerns and Strategies into the Above recommended Activities

CHAPTER ONE

1.0 INTRODUCTION

Uganda is one of the ten countries that make up the Nile Basin Initiative (NBI). The other countries include Sudan, Kenya, Ethiopia, Eritrea, Tanzania, Rwanda, Burundi, Djibouti, and the Democratic Republic of Congo.

NBI is a transitional mechanism formed to promote development and fight poverty in the Basin. Its common vision is:

“To achieve sustainable socio-economic development through the equitable utilisation of, and benefit from the common Nile Basin Resources.”

This study was commissioned by the Nile Transboundary Environment Action Plan (NTEAP), one of the eight projects under the Nile Basin Shared Vision Program (SVP), to establish the status of EE&A in each of the Nile Basin countries. This study documents the current status of EE&A in Uganda as a contribution towards building the EE&A picture in the Basin.

1.1 Facts and Issues about Uganda

1.1.1 Historical Overview

Uganda was a British colony, which got its independence on the 9th of October 1962. The post independence era saw about 9 years of stability and prosperity in which Uganda was among the fastest developing countries in Africa. However, from the 1971 military coupe of Idi Amin in 1986, Uganda experienced over fifteen years of turmoil, grave insecurity and disastrous economic decline. During this period, the country's environment and natural resources were also very badly mismanaged.

1.1.2 Location

Uganda is a land locked country with an area of 236,000 km² and is located astride the equator between 4° North and 1° south, and stretches from 29.3° - 35° west. It is bordered by Sudan in the north, Kenya to the east, Tanzania to the south, Rwanda to the southeast, and the Democratic Republic of Congo to the west.

1.1.3 Physical Features

Uganda is a plateau sitting at a high altitude that ranges from 900 – 1,500 metre above sea level. The south and western regions are hilly, ending in the Muhavura Mountains to the south, and the Rwenzori ranges to the west. The central region has mild hills while the eastern and northern regions are characterised by plains. To the East on the Kenyan border are the Mt. Elgon ranges. All these ranges drain into large inland lakes, swamps and rivers, that in turn gradually draining into the River Nile.

1.1.4 Climate

In spite of its location along the equator, Uganda has a mild climate modified by the altitude, relief and the large inland water bodies. The temperatures range between 16° - 27° while the rainfall ranges from 500mm in the dry northern parts of the country, to 2,000 mm around the lakeshores.

There are, however, increasingly long periods of drought and occasional high temperatures, which environmentalists blame on the fast degradation of the country's natural resources, especially forests.

1.1.5 Population

The last census 2002 put Uganda's population at 24 million people. 51% are female while 49% are male. The population continues to increase at a very high rate of 2.5% per year. This increase puts a lot of pressure on the land resource considering that about 84% of households in Uganda live in rural areas where they mainly depend on land and other natural resources for survival.

1.1.6 Economic Overview

The backbone of Uganda's economy depends on its natural resources. 80% of Uganda's population depends on agriculture which is mostly rain fed. Agriculture accounts for almost half of the nation's Gross Domestic Product (GDP). Natural resources account for almost 100% of the country's exports including, for example, coffee, cotton, tea, fish, minerals, crafts, flowers and other horticultural products.

Although Uganda's economy had declined substantially and the country was by 1986 among the poorest in the world, it has experienced a steady annual growth of 5-10% over the last 15 years.

1.2 Environment versus Sustainability

1.2.1 Economic Performance Versus Environment

Thus while it is true that Uganda's GNP has grown in real terms since the initiation of the economic recovery program in mid – 1987, this growth is due in part to non-sustainable use of the resource base. In other words growth is being achieved at the expense of future growth because the asset is being used up faster than it is being replenished. A good example is the extraction of wood and timber from forests, which pushes up the GNP but the extraction, is taking place faster than the rate of growth (NEMA, SOER 2000, pg 4).

1.2.2 Poverty and Environment

According to MFPED, Poverty and Environment are linked in a vicious cycle in which people cannot afford to take care of the environment. Yet the poor depend on the environment especially natural resources for the satisfaction of their basic needs. Fertile land and adequate climatic conditions are a prerequisite for food security. As land deteriorates in quality, due to fragmentation and over use, the poor become poorer, (SOER 2000/2001).

1.3 Environment and Natural Resources Use in Uganda

Of Uganda's total surface area of 241,500 sq km, 194,000 sq km is land and the balance of 47,500 sq km comprises of water bodies and wetlands. These natural resources are used as follows. 11% is under cultivation, 54% is arable land used mostly for cattle rearing, 14% is wetlands and 21% is forests.

There is fast degradation of the country's environment and natural resource base, which has continued to be of great concern to government. In commissioning the first ever State of the Environment Report (SOER) for Uganda 1994 the Minister responsible for the environment noted that:

“The degradation of the environment in Uganda has continued at a steady fast rate without many Ugandans realising the predicament the country is headed for. This degradation is threatening the productivity of the natural resource base on which development greatly depends, particularly, land” (SOER 1994, pg 3).

The most pressing environmental degradation issues identified are outlined below.

1.4 Environmental Issues in Uganda

1.4.1 Land Resources

Land is the most highly prized resource as most households in Uganda, 80%, depend on it for their survival. The problems and issues related to this resource include:

- Land fragmentation
- Inappropriate farming methods
- Soil compaction due to use of heavy machinery e.g. Tractors and animal hooves
- Overgrazing
- Use of agro chemicals
- Deforestation
- Bush fires

1.4.2 Forests Resources

By the turn of the 20th century 45% of the country (108,450 sq. km) was covered with forests. By 1994, 21% of these forests remained due to the following unsustainable uses:

- Encroachment mainly for agricultural land expansion, energy mainly firewood or charcoal for cooking and use in factories, especially tobacco and tea curing
- Pit sawing for timber, Mining and brick making

1.4.3 Wildlife Resources

Although Uganda is one of the few countries in the world still endowed with great diversity of animals and plant resources, these are being depleted at a fast rate. Most

damage was inflicted during the two liberation war periods, 1978-85. Some animal species such as the white rhinos are extinct and others threatened with extinction. The root causes for the above is given as; Poaching, Encroachment, Fishing within protected areas/settlements, Consumptive uses; hunting, cropping, fishing, export of live and wild animals and plants for ornamental and medicinal purposes.

1.4.4 Wetland Resources

Wetlands in Uganda currently cover about 30,105 sq km or 13% of the country's total area. Wetlands are important for controlling water flow and flooding, and sediment, nutrient and toxin retention. This important resource is being badly degraded through drainage reclamation, grazing/conversion into cattle farming land, brick making, clearing of vegetation, rice growing, Sewage treatment, hunting of animals and birds reducing population drastically, Habitat destruction

1.4.5 Water Resources

Uganda is one of the fortunate countries in the world endowed with water resources with large in land lakes, rivers, streams and dams. Threats to both surface and underground water resources are: water hyacinth and reeds/papyrus, pollution through industrial water and siltation, poor watershed management, water utilisation rights, water resources monitoring and assessments.

1.4.6 Fisheries Resources

Fisheries have now taken over as the second highest export income earner. Over 10 fish processing factories all producing mainly for export have been set up in the last 10 years. Some of the major threats include: over fishing, destruction of breeding sites, management, catching of undersize fish, using unsustainable (and prohibited) fishing gear, e.g. small size nets, fish poisoning, energy scarcity especially fuel wood for fish preservation (drying), health problems for fishing communities e.g. malaria, latrines and dysentery, bilharzia, lack of safe drinking water and general hygiene, pollution from industries built around Lake Victoria

1.4.7 Energy Resource

Energy is still dominated by wood fuels accounting for 94% of consumption (mainly for household cooking): Petroleum products 5% and hydroelectricity 1%. Other renewable energy sources such as solar, wind, geothermal, animal and agricultural waste were yet to be explored. This put pressure on forests, rangelands, swamps and watershed areas.

1.4.8 Population

The fast rate of population growth (2.5 % annually), which is one of the highest rates in the world, has put pressure on the natural resources. It has also led to other related development issues as listed below: land fragmentation, deforestation, overgrazing, over cultivation and hence soil erosion, poverty, illiteracy and lack of awareness, disease.

1.4.9 Environmental Health

As the population and industrialisation increases, there are health related issues that are experienced in Uganda which were not seen before. These include:

- Nutrition: low levels of nutrition common in the countryside
- Environmental pollution
- Diseases associated with water pollution including waterborne infections such as typhoid fever and cholera, water washed diseases such as scabies and trachoma, and water based diseases such as bilharzia and guinea worm.

1.5 What Uganda has done to curb Environmental Degradation

Prior to 1986, there was no deliberate effort or recognised institution to promote environmental management and sustainable use of Uganda's natural resources.

In 1986, however, the National Resistance Movement (NRM), that captured power after a five-year bush war, came in with a well laid out vision for environmental management and sustainable use of the country's resources. The new government right away created the Ministry of Environmental Protection, fully dedicated to Environmental Management.

For the last 18 years this government has been in power, remarkable progress has been made towards putting in place enabling frameworks for the sustainable management of the country's environment and natural resources.

These major developments in environmental management are summarised below in chronological order showing the process and evolution EE&A.

- 1986:** - Creation of the first ever Ministry of Environment and designating of a full Cabinet Minister responsible for environmental management
- 1991:** - Government launched the NEAP Process, which, after wide consultations, came out with a comprehensive National Environment Action Plan for Uganda 1994
- 1992:** - Uganda sent a big delegation to the Earth Summit in Rio de Janeiro, Brazil, including the President himself where, alongside the 179 heads of state and their representatives, he signs the Rio Declaration and Agenda 21.
- 1994:** - Government through the NEAP Secretariat and the Ministry of Natural Resources published the first ever **State Of The Environment Report (SOER)** for Uganda
 - Government publishes the first ever **National Environment Management Policy**
- 1995:** - Parliament passed into law the **National Environment Statute** which among other things, creates the National Environment Management Authority as the apex body to manage Uganda's Environment
 - Parliament passes the Constitution of Uganda, which among other things entrenches a clean and a healthy environment as a basic right of every person resident in Uganda.
- 1996:** -The National Environment Management Authority was launched and took over the helm of environment management in the country.
- 1997:** - The National Formal EE Strategy (FEES) was formulated and launched
- 1998:** -The National Non-Formal Environment Education Strategy (NFEE) is formulated and launched.
- 1998:** - The National Environment Public Awareness and Reporting Strategy (EPARS) was formulated and launched

2001: - The first five year Environment Capacity Building Project for NEMA ended and the ongoing Capacity Building II started to consolidate and entrench sound environmental Management in Uganda

Government's vision and direction in addressing Uganda's environmental problems therefore has been very clear. EE&A in Uganda has played a very big role in mobilising all levels of society to join in and contribute towards a good and healthy environment for Ugandans.

1.6 Historical Evolution of EE&A in Uganda

According to an Assessment Report by IGGADD carried out by Aggrey Kibenge on 'The State and Status of Environmental Education in Uganda', May 1995, the budding of EE&A is traced back to 1970 when UNESCO executed the 'Basic Education Integrated into Rural Development (BEIRD) project at Namutamba Primary Teachers College, which was aimed at integrating the learners with their physical and biological environments.

Another attempt was made in 1985 when the National Curriculum Development Centre was commissioned to prepare a Secondary School syllabus incorporating all relevant aspects of EE. This was not comprehensively done due to limited funding and the difficult political situation.

In 1986 January 2nd – 5th the Ministry of Education and UNESCO held a workshop to produce environmentally oriented teaching manuals and source materials for use in schools. Three weeks later on 26th January 1986, there was a change in government. The new government came up with a more comprehensive vision for EE&A and environmental management in general, summarised above in section 1.5.

The EE&A scene in Uganda was greatly influenced by the wave of environmental awakening taking place around the world. A series of international conferences, conventions and agreements that Uganda was also party to, did a lot to influence the EE&A thinking in Uganda.

At the Conference on the Human Environment (Stockholm Conference 1972), The international community met to, for the first time; consider the global environment and development needs. There were two significant outcomes of this conference:

- a) Formation of the United Nations Environment Programme (UNEP).
- b) The Stockholm Declaration and Action Plan. The conference did recognise that one of the major ways to fight the pending environmental problems was through wider public awareness.

In 1975, UNEP together with UNESCO launched the International EE Program (IEEP) to fulfil some of the recommendations made at the Stockholm Conference of 1972. The program called our member countries to start on activities aiming at integrating EE into the school curriculum, developing EE&A materials and integrating EE into the curricula of vocational / technical schools and universities as well.

Another major milestone in the development of EE globally was the Intergovernmental Conference in Tbirisi (Tbirisi 1977), where UNEPs IEEP objectives were formulated and strengthened. Among the key recommendations of this congress was that ***EE should be made an integral part of the entire education process and aimed at every category of the population.***

During the same period (1980's), the United Nations set up the World Commission on Environment and Development, also known as the Brundtland Commission. They produced 'Our Common Future' or the 'Brundtland Report', which framed much of what later became the 40 chapters of Agenda 21 and the 27 principles of the Rio Declaration on Environment and Development, which were eventually adopted by Uganda.

At the 20th anniversary of the UNEP and the Stockholm Declaration and Action Plan, the UN convened the UN Conference on Environment and Development (the Earth Summit) in Rio de Janeiro, Brazil. The summit deliberated on, and endorsed an environmental action programme that would guide the Earth into the Twenty First Century, commonly

known as Agenda 21, or the 'Rio Declaration', to which Uganda is a signatory and has been implementing as key guide in environmental management.

Simultaneously, during the Rio Earth summit, the International workshop on EE was held and came up with the recommendations greatly guided the drawing of the EE strategies in Uganda.

Related Conferences and Agreements in line with Agenda 21 include:

- 1994: Cairo Conference on Population and development
- 1995: Copenhagen Social Summit
- 1996: Beijing Women and Development Conference
 - Istanbul Conference on Human Settlement
 - Rio Food Summit
- 1997: Rio +5, which reviewed the countries performance on Agenda 21 and the 27 principles.
- 2002: Rio +10 which took place in South Africa to again review member countries' performance 10 years after the Earth Summit declarations.

These global recommendations were seriously considered and are indeed reflected, in Uganda's National Environment management Policy and Statute as will be outlined in chapter two.

In addition to the above, a number of other of multilateral environmental agreements on e.g. climate, biodiversity, desertification, access to informational justice, Agroforestry, Pristine Organic pollutants were signed in Rio. Others include, for example, the Ramsar convention on wetlands management and the Bio safety protocol 2000, were signed by Uganda and are being implemented by the various government departments.

In 1991, the Government of Uganda launched the National Environment Action Planning (NEAP) process. After extensive and wide consultations with all levels and sectors of society across the country Government was able to identify the key environmental issues

and drew a policy and an action plan to tackle these issues. Among these well-articulated plans and policies is what government intended to do to in the field of EE&A. It is on the basis of this important work and carefully laid out government plan that EE&A strategies were designed, aimed at reaching every household and person resident in Uganda. This report describes how these EE&A strategies have been implemented, the gaps and actions that are still required this sector.

CHAPTER TWO

2.0 METHODOLOGY OF THE STUDY

2.1 Study Objectives

According to the Terms of Reference of this study given by the Nile Transboundary Environment Action Project (NTEAP) a Nile Basin Initiative Project, the main objective of the study is:

“To come up with a clear snapshot of the existing state of the EE and Awareness within the Nile Basin for each riparian country” (in this case Uganda)

The specific objectives are to:

- (i) Determine the state of formal and informal (non-formal) EE&A activities within the country. The Policy and Institutional Frameworks at national level and transboundary activities within the basin.
- (ii) Determine the state of EE&A within all levels of learning institutions especially secondary schools
- (iii) Assess the number of tertiary institutions offering EE either as a course or module
- (iv) Identify active practitioners and/or products (films, books, radio programs, campaigns, brochures, posters, etc) within the basin on public awareness and environmental education. Document their modes of delivery, institutional set ups and sources of funding.
- (v) Based on the collected information, projects and other documents and personal experiences, identify activity gaps and suggest opportunities and constraints for transboundary EE and awareness activities within the basin in each country (Uganda).
- (vi) Based on collected information, suggest main SMART indicators for measuring progress.

With the above in mind, a careful methodology was developed to identify and document, as far as is practicable within the short time and limited resources, the wide ranging work

that has been done, and remains to be done nationwide, by the various key stake holders in the formal, non-formal and public awareness sectors of the EE&A.

2.2 Methodology of the Study

The methodology followed in the assessment is summarised below:

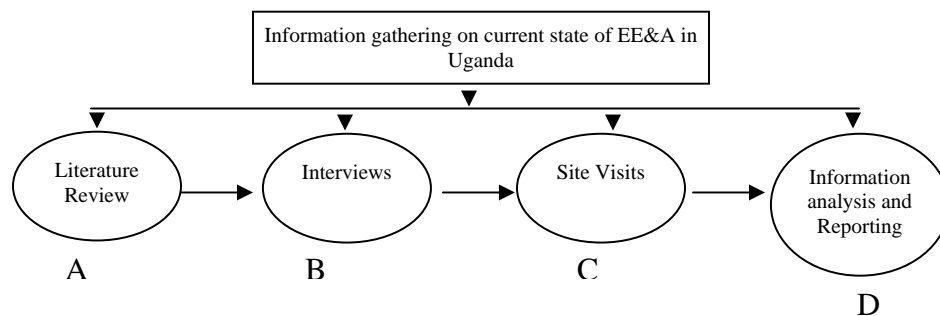


Figure 2.1: Study Methodology

a) Desk Survey/ Literature Review

As provided for in the TOR of this survey, a desk survey was carried out which mainly focussed on the Transboundary Environment Analysis (TEA), Transboundary Environmental Action Plan (TEAP), NEMA documents like reports and documents from other key organisations relevant to the survey.

b) Data collection tools

Basing on this literature and the objectives of this survey, data collection tools (checklists) were designed beginning with a general information sheet and then particular checklists (appendix 1 a, b, c, d, e, and f) for the specific sample groups. The respondents were identified per sample groups, the number and names of individuals, / organisation, / agencies, / Government desks involved in this study are summarised are shown in appendix 3.

c) Data collection

Using the data collection tools mentioned above, the investigation team used a participatory approach. An introductory letter (appendix 4) signed by the consultant was also given to the investigation team to explain to the respondents the purpose of the study.

It was noted that many of the identified respondents from these various sample groups had a very busy schedule. They requested for future appointments while others preferred to be left with checklists for then to fill at a time of their convenience. A good number of them preferred to give the researchers their institutional documents, project, program and annual reports for them to get the relevant information to the survey. Other institutions referred the data collectors to the Internet to find the information that they require and to this effect, the Internet became a very useful source of data for this study.

Particularly on formal EE in secondary schools, the schools were on holiday and the data was got from the few staff members present on the campus.

To get the opinions from the community, three focus group discussions were held in Nakasero Summit village (Kampala), Ruharo in Bushenyi, and Bushikori village in Mbale. Each group comprised of 5 – 9 members (mothers, fathers and youths).

During the data collection, the research team also collected samples of IEC materials, which were availed by the various institutions.

d) Data Analysis and Report writing

The collected data was analysed with the objectives of the survey while putting it in a summarised form.

This report was written in accordance with the TOR to give the reader a clear snapshot of the state of EE & A in Uganda.

The draft report was sent to the NTEAP whose comments have been incorporated in the subsequent drafts until the final report. The same draft was presented to the National EE Working Group on 24th February 2005 at Fairway Hotel. Their comments have also been incorporated in this report.

CHAPTER THREE

3.0 POLICIES, LEGAL AND INSTITUTIONAL FRAMEWORK FOR EE&A IN UGANDA

3.1 Uganda's Signatory to International Environmental Conventions, Protocols and Treaties

Uganda is a signatory to a number of international conventions, Protocols treaties and agreements to protect the environment. Some of these conventions concern e.g. protection of wetlands, the atmosphere, endangered species and other biodiversity, combating desertification, and so on. (A full list of these conventions is in appendix 2).

In addition to the signing, Uganda has gone ahead to take local actions on the ground such as formulating supportive policies, laws and guidelines and setting up desks and contact persons in relevant ministries to ensure the conventions are implemented locally, and corrective programs and actions are designed and instituted. For example the following conventions are implemented as follows:

No	Convention	Focal Person/Ministry
1	Convention on Wetlands	Natural Wetlands Department, MWLE
2	Convention on Biological Diversity	NEMA, MWLE
3	Convention on Combating Desertification	Min. of Agriculture, Animal Industry and Fisheries
4	Montreal and Vienna Protocols on Substances that deplete the Ozone Layer	NEMA/MWLE

The relevant departments have used various forms of EE&A including seminars, radio programs, films and demonstration sites to inform and involve stakeholders in implementing actions inline with the signed protocols.

3.2 Uganda's Policies and Laws on EE&A

As party to the international conventions sited above, and particularly the Rio Declaration and Agenda 21, Uganda has, since 1992, taken steps to formulate policies and enact laws that are supportive of EE&A, and therefore geared towards implementing

Agenda 21. Chapter 36 of Agenda 21 is on 'Education, Training and Public Awareness'. The policies and laws designed to fulfil the above agreement are outlined below.

3.2.1 Policies Supportive of EE&A

The Government of Uganda first affirmed its position on EE in its Government white Paper on Education 1992, as stated in Chapter Two, National Goals and Objectives, - Clause 4: *Government further agrees that in all its future plans programs of designing the curriculum, the following are some of the main concerns which need to be reflected in the educational objectives and curriculum at various levels; (iii) Developing awareness and concerns for protection of the environment.*

Following the identification of the serious environmental issues documented in SOER 1994, Uganda drew the National Environment Management Policy (NEMP). Government emphasised in the NEMP, the integral part to be played by EE&A in addressing Uganda's environmental Problems.

Environmental Education and public awareness is an essential component of sustainable development and environment protection. To ensure that the population is fully involved in environment planning and management, there is need to draw up and implement a comprehensive environment education and public awareness program.

The Policy goes on to outline strategies, which became the key guiding targets for the implementation of EE&A in Uganda. These include among others:

- (i) *Develop a **national strategy for carrying out public awareness through non-formal and informal EE programs** for the public and private sector, especially policy makers, politicians, administrators, bankers, industrialists, transporters, farmers and all other natural resource users;*
- (ii) *Develop environmental teaching materials initially for primary schools and eventually for all training institutions;*

- (iii) *Train trainers in the use of educational materials, for example teacher trainers;*
- (iv) ***Make EE mandatory in all formal education institutions;***
- (v) *Strengthen existing higher level institutions to offer more programs tailored to produce environmental economists, planners, trainers, lecturers, lawyers and enforcement officers;*
- (vi) *Provide in-service training in specialised areas such as environmental planning, economics, law, information systems, impact assessment, pollution control and waste management;*

3.2.2 Environmental Laws Supporting EE&A in Uganda

The constitution of Uganda, 1995, was very pronounced on environment and natural resource management. The following articles clearly demonstrate the central role environmental management would be given.

A) Chapter Four: Protection and promotion of fundamental Human Rights and Freedoms:

Article 39: *'Every Ugandan has a right to a clean and healthy environment.'*

This particular article is very important because it elevates environmental concerns to a fundamental human right and entrenches it in the countries constitution.

B) Preamble xiii:

The constitution prescribes a central role for the state to protect the country's natural resources:

The state shall protect important national reserves including land, water, wetlands, animals, fauna and flora on behalf of the people

This is further expanded in the section dedicated to environmental management:

Preamble XXVII: The Environment

- (i) *The State shall promote sustainable development and public awareness of the need to manage land, air, water resources in a balanced and sustainable manner for the present and future generations*
- (ii) *The utilisation of the natural resources shall be managed in such a way as to meet the development and environmental needs of present and future generations of Ugandans; and in particular, the State shall take all possible measures to prevent or minimise damage and destruction to land, air and water resources resulting from pollution or other causes.*
- (iii) *The State shall promote and implement energy policies that will ensure peoples basic needs and those of environmental preservation are met.*

In the same year, 1995, Parliament passed the National Environment Statute (NES). The NES again further articulated the significance to be given to EE&A:

Article 3 (2) (i) under Principles of Environmental Management states, “to ensure that environmental awareness is treated as an integral part of education at all levels”.

Other supporting articles to EE&A include:

Article 7 (g) ‘To promote public awareness through formal, non-formal and informal education about environmental issues’

Article 87 (e) ‘Carry out public information and education campaigns in field of environment’

Article 88 ‘The Authority shall, in collaboration with the Minister responsible for education, take all measures necessary for the integration in the school curriculum of education on the environment’

3.3 Institutional Co-ordination and Linkages for EE&A

To oversee the integrating of environmental management into the country's development process, the statute creates NEMA:

Section 5(1:) There is established a body to be called the National Environment Management Authority in this statute referred to as the 'Authority'.

Article 6 'The Authority shall be the principal agency in Uganda for the management of the environment and shall coordinate, monitor and supervise all activities in the field of the environment'

It is under the above mandate that NEMA, which started operations at the beginning of 1996, took over the overall management and pace setting in environmental matters of the country. Most of this report, which deals with environmental actions after 1996, will circle around NEMA activities and those done in collaboration with other stakeholders.

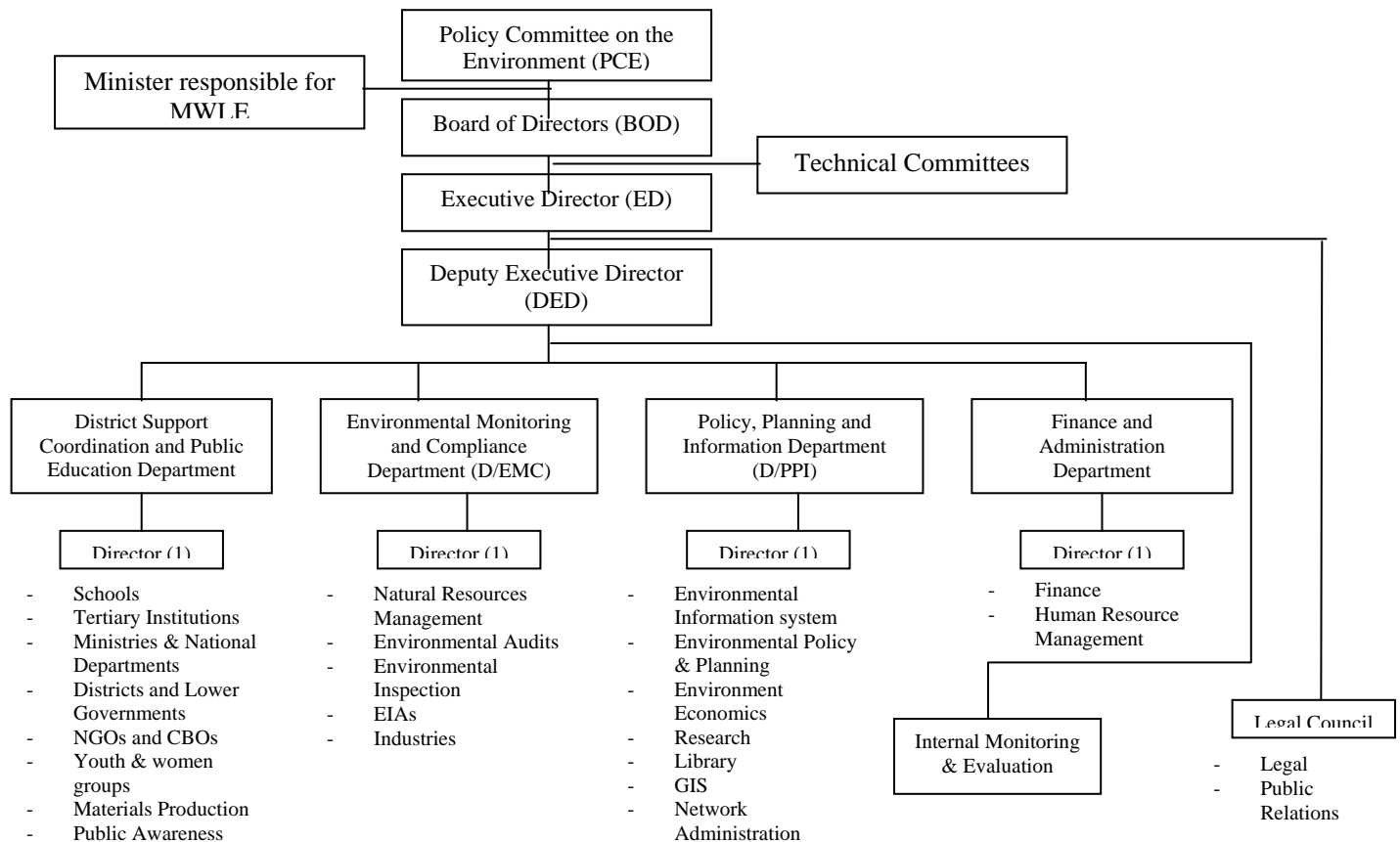
Statutory Functions of NEMA

NEMA is mandated by the National Statute 1995 to carry out the following functions:

- a) To coordinate the implementation of government policy and the decision of the Policy Committee on Environment
- b) To ensure 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, intergovernmental organisations, non-governmental agencies, governmental agencies of other states on issues relating to the environment
- d) To propose environmental policies and strategies to the policy committee
- e) To review and approve environmental impact assessments and environmental impact statements submitted in accordance with NES or any other law

- f) **To promote public awareness through formal, non-formal and informal education about environmental issues**
- g) 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
- h) To ensure observance of proper safeguards in the planning and execution of all development projects, including those already in existence that have or are likely to have significant impact on the environment determined in accordance with part V of the NES.
- i) To undertake research, and disseminate information about the environment
- j) To mobilise, expedite and monitor resources for environmental management
- k) 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 functions for under the NES.

3.3.1 NEMA Organogram



As seen from the above organogram, NEMAs coordination flow was enhanced by the following key features:

- At the highest possible level, is the Policy Committee comprising of 11 ministries, whose portfolios impinge on the environment. The committee chaired by the Prime Minister, sets policies and streamlines policy guidelines.
- The Board has representatives from key stakeholders in Environmental management in the country, including industry, educational institutions, civil society (NGOs / CBOs) and environmental activists.
- At operational level, the four major departments plus the legal council's office, share the relevant stakeholders and coordinate all activities of the organisations that fall under this jurisdiction across the country, as shown in the diagram above.

CHAPTER FOUR

4.0 FORMAL ENVIRONMENTAL EDUCATION IN UGANDA

4.1 The Basis for Formal EE in Uganda

As mentioned earlier, government clear direction on EE was given in the Government White Paper on Education, 1992, when it emphasised that in future programmes of designing curricula, one of the three major concerns to be reflected in the educational objectives and in curricula at all levels should be:

“Developing awareness and concern for protection of the environment”.

In addition to this, the National Environment Management Policy does prescribe for NEMA and the Ministry of Education to make sure environmental education is integrated in the curricula of all levels of education. Finally, the NES Article 88 obliges NEMA and the Minister responsible for education to:

“Take all measures necessary for the integration in the school curricula of education on the environment”.

It was to fulfil these directives that NEMA worked with the Ministry of Education to develop a Formal EE (FEE) strategy, which would guide the future integration of EE&A into the curricula in all levels of education in the formal sector.

4.2 Formulation of the National EE Strategy for the Formal Sector

Barely a month in office, the division of EAT convened the first multi-stakeholder meeting at NEMA to plan together the development of a national FEE strategy. The workshop was held from 22nd - 24th April 1996, during which a framework strategy was developed. A small committee was tasked to finalise the strategy and in June 1996, NEMA and the Ministry of Education approved and launched the strategy and an Action Plan. The strategy outlined the following program areas, which have guided the EE activities in the country for the last 8 years are; - **Curriculum Development, -Materials development, -Competence building, -Research in Environmental Education, -**

Coordination and Networking, Monitoring, evaluation and reporting, -Participatory actions

A Coordination structure was also designed to show the linkages among the various stakeholders. (Appendix 9)

4.3 Current Uganda's Educational System

The Uganda educational system is divided into three basic levels:

- a) Pre-Primary (3 years) followed by Primary school (7 years)
- b) Secondary: Ordinary Secondary ('O' Level, 4 years) followed by Advanced Level ('A' Level, 2 years)
- c) Tertiary (Post Secondary)
 - University (2 years for Diploma and 3-7 years for Degree)
 - Teacher Education (2 – 5 years)
 - Vocational/Technical (2-5 years) including line Ministry post secondary institutions such as School of health and Hygiene, Forestry colleges, Agricultural Colleges, Fisheries College, Nursing Schools

Government policy is to have EE&A integrated into the curriculum of all levels of education starting with 3 year olds entering Pre-primary to 16/17 year olds starting University.

Starting from 1997, Uganda introduced the Universal Primary Education (UPE) Policy. Every Child of school going age is supposed to join primary school free. This led to enrolment to jump from below 3 million in 1996, to over 7.3 million by the year 2002. The increased enrolment means more young people have access to environmental education which is already integrated into the primary school curriculum.

4.4 EE Achievements in Primary and Secondary Schools

Eight years of implementing the FEE strategy a lot has been achieved by NEMA and its partners in Formal EE. Some highlights of the achievements are noted below.

a) Pre-Primary and Primary Education

- (i) According to Proscovia Mulyowa, a Senior Curriculum Development Officer with the NCDC, EE has, been integrated in all the four traditional subjects; English Science, Mathematics and Social Studies. This task was completed in 1999. The curriculum and two copies of the syllabus volume I, plus a teachers guide, were distributed to all government aided schools in the country. These texts are also available in Bookshops for the public to buy.
- (ii) All teachers in Pre-Primary and primary schools are expected to be following the 'Learning Framework' (syllabus) and hence EE is expected to be taught in an integrated manner in the 4 traditional subjects in all primary schools across the country.
- (iii) The Uganda national /examinations Board (UNEB) now sets questions based on EE integrated syllabus. Hence all students are expected to be taught EE in order to answer the questions that test this kind of knowledge.
- (iv) However, Government recently decided to expand the Primary school curriculum to include skills based on moral and spiritual education. The following subjects were added to the Primary school curriculum; Religious Education, Production skills, Agriculture, Performing Arts and Physical Education (PAPE), Kiswahili, and Local Languages. The NCDC has already produced volume II of the Pre and Primary School Curriculum including the above additional subjects. EE has been integrated in each of those six subjects as well. It is expected that at the end of 2006, the pupils instead of sitting the current 4 subjects in their Primary leaving Examinations (PLE), will instead be examined in 10 subjects. Questions requiring EE knowledge and skills will also be asked.
- (v) NEMA has already trained the primary school specialists (full time, resident NCDC staff) and subject panellists (participating teachers who are invited to sit on the subject panels each time there is a review). These have sufficient skills to integrate EE in the curriculum to be reviewed.

- (vi) In terms of capacity building, NEMA has over the last 8 years been implementing the Whole School Approach program that was later called the School EE Program (SEEP).
- (vii) About 3,000 schools were reached in the first five-year NEMA EMCB project. About 6,000 have been reached in the second phase of EMCB PII. The program operates by training the Head teacher of the school and one teacher as the School Environmental Educations Coordinator. These two are expected to go back and train the school and the surrounding community. About 8,900 of the schools trained in the 26 districts NEMA is working in, are primary schools. If two people per school have been trained, then it means NEMA has trained at least 16,000 teachers who are out there propagating good environment practices. The two teachers are expected to train the rest of the staff and school community.

b) Secondary schools

- (i) NEMA held a workshop to train subject specialists and panellists at NCDC in 1998 and another in April 2003 to build the capacity of the curriculum developers to integrate EE into the secondary school curriculum. Many of the specialist and panellists have had a fairly regular exposure to EE in training by NEMA and are often used as resource persons. So sufficient capacity does exist to integrate EE into the Secondary School curriculum.
- (ii) In 2003 the process of this integration started at NCDC. A baseline study was carried out and recommendations made. The subject panellists were trained but before development of actual content could start, government halted the process until the pending review of the primary curriculum was done. The review of the secondary school curriculum would then follow, giving the opportunity to integrate EE. This has delayed the whole process of integrating EE&A in secondary schools.

In spite of this, the over 400 secondary school teachers in about 200 schools, whom NEMA and its team of national trainers have trained are going ahead and integrating EE in their subjects and running active EE programs in their schools. Many schools where

active clubs such as wildlife of Uganda, Geography, Environment, Science, Scouts and girl guides, agriculture, young farmers, Music Dance and Drama, Child to Child and the Red Cross clubs, etc. exist and are engaged in active participatory environmental management activities.

4.5 Environmental Programs/Projects/Activities within the SEEP

Findings from a survey conducted by NEMA to evaluate the SEEP performance, and from this survey, show that the following programs/projects/Activities were noted are being implemented in schools.

TABLE 4B: Environmental Programs/Projects/Activities within the SEEP

No.	b) Programs/Projects	Objective(s)	Activities	Achievements & Examples
1	Integration of EE into teaching work plan	Integrated EE in Primary and Secondary schools syllabus	Reviewing the teaching work plans and including EE.	Primary School Teachers in School NEMA trained in 27 districts integrate EE on work plans
2	School networking project	Creating link with National & regional Environmental Organisations	Establish links environmental organisations, sharing information and experiences.	Established networks with REAL Africa and KOEE with schools like Gayaza High, and Kings College Buddo.
3	Environmental Conservation and restoration program	To protect and restore the lost biodiversity in and around the school compound	Controlling soil erosion, Water harvesting, Tree planting, Live fencing, Bird watching, Composting, Landscaping and designing compounds	In over 8,500 primary schools, and many secondary Schools, these activities have been adopted
4	Income generating projects	To generate funds that can be used in the implementation of EE other programs	Establish commercial nursery beds and cassava lots, Poultry, Coffee growing, Food crops, Recycling waste	Again in over 8000 schools have adapted these E.g. Gayaza Commercial Nursery beds.
5	Environmental awareness programs	Great awareness among the stakeholders in the SEEP	Seminars and workshops can be organised, Door to door community visits, Environmental research	NEMA has taught over half the country's sub counties in EE&A, Environmental researchers from Namilyango College
6	Hygiene and Sanitary Project	To promote personal and school sanitation amongst the	Personal cleanliness, cleaning classes, pit latrines, dormitories and kitchens, general compound cleaning and	Ministry of Health and Ministry of Energy have provided Hygiene education through science subjects

		students and surrounding community	removing wastes	
7	Agricultural Projects	Supplement school	School gardening, Conservation of plants	Set gardens in several schools though the various clubs
8	School/Community links program	To extend the SEEP into the community so the school and surrounding community help each other	Seminars have been held in secondary schools, Clearing of public places, in Mbale, Iganga, Wakiso, Kumi, by schools and Kampala based organisations	Several Schools participate in the environment days celebrations, do community cleanups and sensitise the public through MDD e.g. Ocibi Primary School.
9	Environmental Management Competitions	Enhance effectiveness of SEEP program by encouraging innovations to win prizes	Holding District, regional and national environmental management competitions	District, Regional and National competitions have place for the past 2 years, several schools take part like, Bulugo PS, St. Francis PS, St. Kizito PS etc.

4.6 EE Learning Materials

4.6.1 Achievements in EE & Awareness Materials by NEMA

NEMA and its partners have produced a wide range of EE materials for use in the Formal, Non-Formal and public EE awareness. Materials are expensive to reproduce and this has tended to limit circulation. NEMA realising its limited human and financial resources, gave priority to building the capacity of other stakeholders to produce their own materials. In the over 110 workshops the NEMA has run in EE&A, the EE Materials Specialist runs, at least half day sessions in materials design and production.

On its own, however, according to NEMA's Director for District Coordination and Public Education, Mr. Akol Charles, and from the samples collected during this survey, NEMA has produced a wide range of Educational Training, Information and publicity print and electronic materials. These include books, manuals, posters, maps, brochures, chats, fact sheets, pamphlets, newsletters, T-shirts, stickers, calendars, documentaries, exhibition materials, newspaper articles, supplements and adverts and year planners, (NEMA annual reports, 2003).

Electronic Materials

NEMA has also produced the following materials, some of which were broadcast, but are yet to be reproduced for selling or wide circulation to the public:

- 12 Training video films on Environmental good practices and technologies.
- 35 documentaries covering a wide range of Environmental problems across the country and some good practices to address these problems.
- There are also GIS environmental data sheet and maps that can be copied for the public who wish to use them.

As NEMA establishes EE&A Resource Centres across the country at district level, it is hoped that this will increase the public access to useful and valuable information and education materials as all centres are being stocked with EE&A materials produced by NEMA and its partners.

4.6.2 EE Materials by other EE & Awareness Partners

In addition to NEMA's work, a good number of partners produce very informative and educative materials. These include among others:-

Government bodies

No	Organisation	Materials Produced
1	The National Wetlands Program	Wetlands policy, training manuals, charts, posters, educational booklets, fact sheets, calendars.
2	Ministry of Local Government	Has produced training manuals on environmental management for local leaders to be used up to village councillors and community leaders
3	Department of Water Development	Training manuals on water management, water borne diseases and water conservation, posters and brochures
4	Ministry of Energy and Mineral Development	Energy Policy for Uganda, Energy is life: A Resource Book for Primary Schools, aimed at integrating energy education into Uganda's primary schools' syllabus, with a pupils' workbook, posters, T-shirts, etc, A manual on the construction of Lorena energy saving stoves, brochures on construction of institutional fuel saving stoves, a film on energy education that won the East African creative category in 2004.

NGOs and Donor Funded Projects

No	Organisation	Materials Produced
1	Horizont ₃₀₀₀ (Austrian Aid):	Manual and films on water harvesting and constructing tanks from cement soil stabilised interlocking blocks where the manual is translated into several local languages.
2	NAPE	Bi-monthly newsletters, training materials on water management.
3	Integrated Rural Development Initiatives (IRDI):	Manuals on renewable energy- solar, biogas, biomass, educational films on constructing energy saving stoves and installing biogas systems.
4	Straight Talk, an NGO that produces a weekly supplement for teenagers in the biggest national daily, The New Vision	Produces “TREE TALK”, a program that encourages the youth to take care of the environment. These monthly supplements give good information e.g. on setting up school tree nursery beds caring for school gardens, setting up green areas in the school, etc... they distribute about 20,000 copies monthly to secondary and primary schools and sometimes enclose tree seeds
5	Fountain publishers and Sir Ndyakyira Amooti, a world renown journalist	Under a Netherlands Government scheme wrote and published a series of five children’s’ readers on environmental themes! What a Country without Wetlands, without grasslands, animals, without birds, without trees

4.7 EE Teaching Methods

There is a wide range of methods used in teaching FEE in Uganda. These mainly include;

- Lecture method during class room teaching,
- Participatory method during extracurricular activities in school clubs,
- Demonstration methods and
- Music, dance and drama
- Exploratory method
- Experiential learning
- Environmental Audits
- Field Study Trips

CHAPTER FIVE

5.0 EE&A IN TERTIARY INSTITUTIONS

Tertiary institutions in Uganda include Universities, Teacher Training colleges, and Vocational and Technical Schools.

5.1 EE & A in Universities

In the early 1980s when Uganda had only one university (Makerere University), EE was not considered a priority to be taught. With the creation of the Makerere University Institute of Environment and Natural Resources (MUIENR) in 1986, EE gained momentum. Components of environmental education started being taught in other faculties such as Agriculture, Arts, Sciences, Institute of Adult and continuing Education, Institute of Public Health, etc. and departments like; Botany, Zoology, Geography. However, there are now 4 public universities (Makerere, Mbarara, Kyambogo & Gulu Universities) and 19 registered private universities in Uganda. During this survey, it was noted that most of the universities offer environmental courses or courses with course units in environmental education. In this survey, a course is regarded as an environmental course if the bigger portion of its course content is about/for environment. These courses are done at Diploma, Undergraduate or postgraduate degree levels.

At postgraduate level, three major courses offered at Makerere University, namely A Masters degree in Environmental Education at the School of Education, Masters in Environment and Natural Resources Management at MUIENR and Masters in Environmental Law at the Faculty of Law.

At undergraduate level, courses like, Bachelor of Environmental Management, Bachelor of Environment Science, Bachelor of Environmental Health Sciences etc. are being offered at Makerere University and several other Universities such as Kampala University and Gulu University also offer degrees in Environmental Management. At Diploma level again similar courses are being offered.

In addition, there are several courses that are being offered at the various Universities that have modules on the Environment for example Masters of Public Health, Bachelor Law

(Environmental Law), Bachelor of Tourism, Bachelor of Veterinary Medicine, Bachelor of Adult and Community Education, Bachelor of Agriculture Veterinary, etc.

At the Department of Mass Communication a special course, Diploma in Environmental Journalism, has been introduced to produce environmental journalists for the fast expanding mass media market.

According to Dr. Oonyu of the School of Education, Makerere University, EE has been integrated into the foundation courses, which are under the direct control of the School of Education. These include for example, Educational Psychology, Foundation of Education, Curriculum Development, Educational Administration, etc. Some lecturers have also integrated EE into the methods courses e.g. Biology and Chemistry teaching methodology. For core course content, however, the student teachers go to the Faculty of Arts or Faculty of Sciences. Some of the courses in those faculties have yet to integrate EE. The following general observations were made:

- Though environmental courses are being offered at the various universities and even within the same university, it was revealed that there is inadequate co-ordination and co-operation between and among the different institutions, and even different departments within the institution. Information exchange is almost non-existent as each institution or department works on its own design, and course content. Therefore duplication of efforts is inevitable.
- Most of the environmental courses or course units teach the students about the environment rather than for the environment.
- Production of EE materials has been done. For example MUIENR has been producing some teaching and technical manuals.

5.2 EE & A in other Tertiary Institutions

a) Environmental Institutions

Makerere International Institute of EE and Development of Practical skills (MIIEEDPS), a private institution, was the first institution in Uganda to offer Diplomas in Environmental Management, then later Degrees. It has passed out over 5,000 graduates in

environmental science and its graduates formed the National Association of Professional Environmentalists (NAPE), one of the most active and vocal environment NGO's.

b) Teacher Training Colleges

NEMA has run several workshops in the 37 districts to train CCTs who are tutors from a college but based in the field where they carry out in-service teacher improvement training under the Teacher Development Management Service (TDMS). These CCTs have enriched the EE integration process in the colleges they are attached to. They also do pre-service EE training for new student teachers before they begin teaching. Most Teachers colleges in the country have at least some one or two tutors who have been trained by NEMA as EE resource persons. In addition, all TTCs fall under the Institute of Teacher Education (ITEC) now Kyambogo University. The training programs and national examinations for all colleges countrywide are set by ITEK. Most courses designed for TTCs already have EE&A and its training methodology integrated.

c) Vocational Schools and Technical Colleges

All vocational schools, technical colleges and national polytechnics fall under Uganda Polytechnic Kyambogo (UPK), which has now been merged to the Institute of Teacher Education Kyambogo (ITEK), to form Kyambogo University.

UPK is responsible for setting syllabus and the national examinations for the Vocational schools and technical colleges in the country. NEMA in 1998 trained UPK lecturers. The trained lecturers ensured that EE was integrated in all courses at the college and in the curriculum for other colleges. This ensures that all students, whether civil, electrical, mechanical or refrigeration engineering, architectural draftsmen, surveyors or laboratory technicians, or technical education teachers/instructors, are trained in EE and how to integrate it in activities in their work places.

d) Sectoral/Line Department Colleges

These include Forestry College, Nyabyeya, Fisheries College Jinja, Arapai Agricultural Colleges, Mbale School of Hygiene, etc.

NEMA, between 1998 and 2000 ran workshops for EE coordinators who were to initiate EE activities in their colleges. Most colleges have introduced specific course units in environment management while integrating EE practices into the rest of the courses. For example Nyabyeya Forestry College has an EE course. It has also worked with the Ministry of Energy and GTZ to introduce an Energy course.

5.3 Environmental Projects in Tertiary Institutions

Several Tertiary Institutions independently or in partnership with NGOs/Government agencies are carrying out programs and projects that involve EE & A. these include:

a) NEMA – Makerere University Internship Program

Through the partnership of NEMA and MUK faculty of Arts and Department of Mass Communication, a local government level internships program was started. It is aimed at creating a cadre of journalists who can articulate and communicate environment effectively.

b) Mount Elgon Conservation Project

This project is under the Faculty of Arts Department of Geography where MUK is partnering with UWA, Department of Forestry Conservation and IUCN to protect the forest cover of Mt. Elgon.

c) Research Projects on environmental Issues

In Universities and other tertiary institutions, students have been encouraged to carry out their research in the field of Environment on environmental issues and thus enhancing the data available from within the community about the environment.

In addition, several donor agencies like the Rockefeller Foundation and CANERGIE have funded groups of students to carry out research on environmental issues.

d) Students Association

Within the various Universities and other Tertiary Institutions, students taking environment courses, formed associations, which organises activities, like education tours, academic debates. Examples include, for example, Kyambogo Environmental

Management Association (KEMA) and Makerere University Environmental Management Association (MUEMA).

e) Biodiversity Conservation Project

MUIENR together with Green Watch Uganda are carrying out a Biodiversity Conservation Project where a Data Bank has been created for all the information about the National Biodiversity.

f) Environmental Education Action Research Project.

This is a project at Kyambogo University started in 2000. Here the research topics are picked according to the priority areas for EE in Uganda. The findings of these researches are presented at workshops and the data is available for the public.

g) Northern Uganda Press Association (NUPA) Project

In Partnership with Kyambogo University this project has focussed on the University - community link with a lot of support from NEMA. With the contribution of this project, about 7,200 professionals who have gone through the University (by then UPK) between 1998 and 2004 have all attended EE seminars and workshop and have all been given certificates to confirm that they are “green” or environmentally friendly.

CHAPTER SIX

6.0 NON-FORMAL ENVIRONMENTAL EDUCATION

6.1 Development of the Strategy and Action Plan

In 1997, UNDP provided a grant to fund the process of developing the Non-Formal EE strategy. A consultant hired from Makerere Institute of Adult Education for the task together with a NEMA team, travelled around the country sampling stakeholders views. The findings were compiled and a National Forum composed of representatives from government departments, districts, traditional healers, religious leaders, academics, women and youth leaders, NGO's. Donors, army, etc, convened to discuss and agree on the strategy and action plan. NEMA and the Ministry of Natural Resources approved the strategy.

The following Eight Program Areas were endorsed namely; -Networking and Coordination, -Training (building the capacity of change agents and target groups in EE&M), Materials Development, -Developing Environmental Resource and Information centres, - Public Awareness Media Programs, -Research, - Developing a prototype training manual, Strengthening the role of indigenous knowledge and practices in Environment Management, - Integration of gender concerns into environmental Policy, planning and implementation

6.2 Achievements of Non-Formal EE and Activities

Examples of key achievements in the NFEE are summarised below:

Initiatives and Achievements in Non-Formal EE

Organisation	Activity	Target Group	Achieved
NEMA	EE sensitisation for top law and policy makers and implementers	<ul style="list-style-type: none">All parliamentarians of 1996 New ParliamentAll Permanent SecretariesGovernment Departmental heads	EE&A on Environmental statue and policies, and roles they are expected to play
	Study Tours for EE Policy and Law makers and Environmental	<ul style="list-style-type: none">Parliamentary sessional committee on Natural Resources	2 tours organised covering areas of environmental

	seminar		importance being legislated on. Informed decisions made, 35 members each trip
	Creating a national training of Trainers team	<ul style="list-style-type: none"> Experienced and/or potential EE&A Trainers 	A pool of 40 EE&A Trainers created to assist NEMA scale up its activities
	Training of District Councils and District Environmental Committees	<ul style="list-style-type: none"> District Councillors and Environmental Committee Members District Government heads of department 	46 out of 56 Districts reached and trained 46 seminars of 50 people each
	Recruitment of District Environment Officers (DEOs) to spearhead EE&A work in Districts	<ul style="list-style-type: none"> Districts 	54 out of 56 now have Environment Officers
	Building Capacity in Environmental Action Planning	<ul style="list-style-type: none"> Planners at Parish, Sub county and District level to integrate EE in their Development plans 	46 out of 56 Districts reached
	Capacity Building for DEOs	<ul style="list-style-type: none"> DEOs and Municipal Environment Officers 	All 57 Environment Officers get regular training and their officers facilitated
	EE skills to train communities	<ul style="list-style-type: none"> District level NGOs, CBOs Women and Youth group trainers who go directly to train communities 	Training done in 37 Districts
	Specialist Training for Lead Agencies	<ul style="list-style-type: none"> Various NEMA partners e.g. NEMA gazetted environmental inspectors, environmental liaison officers, etc 	Training done in 22 Agencies and Private sector and 46 Districts
	Setting up Environmental Resource Centres to increase public access to EE information	<ul style="list-style-type: none"> District Level 	19 centres so far set up in 19 Districts
	Set up EE District Consultative Forums	<ul style="list-style-type: none"> EE&A NGOs and CBOs in Districts 	36 Districts reached
	Environmental NGOs Directory and registration to assist in coordination, collaboration and networking	<ul style="list-style-type: none"> EE&A NGOs operating nationwide 	Directory first published in 2001 with 350 organisations. New one being prepared for publication with 720 NGOs
UEEF	EE Seminars for sub county Leaders and grass root youth and women groups	<ul style="list-style-type: none"> Grassroots EE activists 	150 seminars run from 2001-2004
Environmental Alert	Setting up EM and	<ul style="list-style-type: none"> Households and 	Over 15 years of

	conservation projects	grassroots groups	focused EE&A work
NAPE	Seminars on water management and general EE&A Launching World Commission on Dams in Uganda	<ul style="list-style-type: none"> • Sub county Leaders and Groups • National Policy makers and EE managers • Coordinating National Earth Day celebrations 	42 sub county seminars conducted 2 International conferences organised 2 celebrations organised in collaboration with NEMA
Uganda coalition for Sustainable Development	Coordinating EE&A NGOs and passing on valuable information and good practices to members	<ul style="list-style-type: none"> • NGOs promoting SD practices 	50 NGOs networked meeting regularly and share good practices and joint actions
ECOVIC	Restoration of environment around Lake Victoria	<ul style="list-style-type: none"> • Groups and communities around the lake 	Tree planting and catchment area restoration Better fishing methods Environmental health
The Nile Basin Discourse	Networking and Passing on information to partner NGOs on proper management of Nile Basin Lobbying and Advocacy	<ul style="list-style-type: none"> • NGOs, Governments and community groups in Nile Basin 	Did good work mobilising NGOs in Uganda and sensitising them on the Nile Stopped activities a year ago but re organising to resume
IUCN	Protection of Mt. Elgon Park Environmental Action Planning in Kapchorwa District	<ul style="list-style-type: none"> • Forestry Department district Governments, NGOs, households and community groups 	Replanting in Mt. Elgon Park, energy saving stoves in households PEAPS, SEAPS, DEAPS
USAID, DFID, Irish Embassy, World Bank, Horizont3000 (Austria), CARE International, GTZ, DED, Japan, EU	These International Agencies have funded multimillion dollar projects in EE&A and general environmental management	<ul style="list-style-type: none"> • Central and District Governments, NGOs, Institutions, CBOs 	<ul style="list-style-type: none"> • Renovation of NEMA house • Funding of DEAPs, SEAPs, PEAPs • District Environment Officers • Environmental projects and programs e.g. COBs, PRIME, Energy Projects, Water harvesting • Small grants to NGOs, CBOs, women groups and schools

CHAPTER SEVEN

7.0 ENVIRONMENTAL PUBLIC AWARENESS AND REPORTING

7.1 Introduction

Right from the start, public awareness, especially the use of electronic media and public lectures, were seen to be strategic and vital tools for bringing the larger section of the public into the environmental management sphere. Environment was a new field for most members of the public and NEMA, the organisation that was to champion the environmental cause, was itself a new and unknown entity with limited resources and personnel.

It was therefore thought prudent to recruit many partners who had access and skills to use the mass media and convert them into environmental enthusiasts and reporters.

7.2 Developing the Public Awareness Strategy

Friedrich Ebert Foundation agreed to fund the development of this strategy. A team of consultants was hired from Makerere University Business School to work closely with NEMA staff and partners to develop this strategy. The strategy was approved and launched in 1998 with the following programme areas:

- a) Influence policy making and implementing organs to enhance public awareness
- b) Strengthen the capacity of public awareness partners to enable them to fulfil their role
- c) Target the widest section of the population in the campaign
- d) Strengthen networking and coordination in NEMA

7.3 Formation of Environmental Journalists Associations

The process of developing the strategy included 5 days intensive training in environmental management. By the time the strategy was launched, over 20 journalists involved felt they owned the strategy and have become strong partners since, sourcing

their own stories and giving free space and airtime and even forming themselves and associations.

7.3.1 EJAU – Environmental Journalists Association of Uganda

It has over 53 members from 30 media houses. This association comes together for the purpose of improving their reporting skills, especially on environmental issues.

They organise refresher courses for the various members to share their experiences as well as invite environmental experts to educate them on environmental issues

EJAU is funded by IUCN, CIDA and has also worked closely with the Ministry of Water, Lands and Environment, Ministry of Energy and Mineral Development, and Ministry of Agriculture. In addition, EJAU partners with other NGOs like the Uganda Wildlife Society, ACORD, and NAPE.

RUDMEC – Rural Development Media Communications

It was formed in 1998 with journalists from over 50 media houses and NGOs. Its vision is to initiate behavioural change using the media, thus enhancing better livelihood and sustainable development of the rural communities.

RUDMEC is also a member of the Uganda Coalition for Sustainable Development, which enables them to get current Environmental information, which they translate and distribute to various stations in English and in local languages.

This organisation carries out activities such as community mobilisation, Radio Program Production, television Documentary Production, and Production of IEC materials such as Rural/Community educational videos.

- Advocating for children's rights
- Revitalisation of farmers cooperatives in collaboration with Uganda Cooperative Alliance
- Promoting Rural Energy Initiatives in cooperation with IRDI
- Water and Resource management with the directorate of water development and Ministry of Water, Lands and Environment

7.4 Radio Programs and Messages in Different Languages

With the advent of FM radio starting 1994, Uganda moved from one national radio, Radio Uganda, to the now over 120 radio stations licensed to operate in the country. Radios have become a way of life for youths and adults alike.

NEMA and its partners have seized this opportunity to have a wide out reach to the community. Radio programmes and spot messages are broadcast on over 40 radios daily.

7.5 Television Programs

NEMA has been running 30-minute weekly programs on the national television, UTV, for the last 6 years. The programs often pick on topical issues or bring in resource persons to present important information or show a documentary on some topical or controversial issue. The next biggest TV station in Uganda, WBS, also broadcasts weekly programs on environmental management.

7.6 Public Lectures

One effective approach NEMA and its partners have used to ensure public participation is to hold public lectures on issues of concern to the public. These lectures are run at National level and in districts. Over 110 lectures have so far been held nationwide.

7.7 Public Hearings

According to the NES, any major project of public interest must hold a public hearing as part of the EIA process, to give an opportunity to the public to give their views and input into the process. NEMA has held a number of these on contentious issues or projects that are likely to have wide reaching environmental impacts. Examples of these were:

- The spraying of the water hyacinth on Lake Victoria, which was opposed by many environmentalists and was gradually abandoned by the Ministry of Agriculture.
- The construction of a dam for hydro-electricity at Bujagali falls threatening to drown the beautiful waterfall used for international white water rafting and scenic beauty

7.8 World Environment Day

NEMA is also responsible for organising the National celebrations to mark this international day every 5th of June. The occasion is often used as a national mobilisation exercise to educate the public across the country, and get them involved in participating in activities to restore the environment in their locality depending on the year's theme. For the last nine years NEMA has organised this day since 1996, a weeklong, sometimes a month, of activities such as film shows, clean ups, public lectures, planting trees on bare hills, etc, are held. A national exhibition of environmentally friendly products and practices is held at the national venue. Other activities include tree planting, clean ups, and environmental music and drama. Prizes to schools, industries, NGOs and individuals that excel in good environmental practices are awarded.

Districts across the country, sub counties and NGOs also organise their own celebrations simultaneously.

7.9 Newsletter: NEMA News

This quarterly newsletter has also become an important public awareness tool. With a circulation of 5,000 copies per issue, the newsletter, which covers the latest environmental innovations and news, is distributed to politicians, schools, industries, NGOs and all sectors of society where it can have impact.

7.10 Environmental Public Awareness by the Districts

With the capacity built at district level by NEMA, many District Environmental Officers are mounting grass root targeted awareness programs on local FM and community radios. These programs are very effective because they are in the local languages and address a problem in the locality, which the listeners know. The programs by the Mbarara DEO for example, have addressed specific wetlands being drained, a hill that was left bare and needs to be replanted with vegetation cover, even waste management in parts of the town where people just dump garbage on the road. In most cases where an area has been mentioned, the local councils and secretaries for environment have taken immediate

measures to address the problem so that they get a more favourable mention on the radio in the following weeks' programs.

7.11 Public Awareness by other partners

With the building of capacity to integrate EE amongst NEMA partners, especially Lead agencies and NGOs, a good number of these organisations who ran media programs on radio, TV and even print media give strong messages on environmental concerns and the need for sustainable use of resources. For example, the following lead agencies broadcast regular radio messages with rich EE content

- PM and NAADS, under Ministry of Agriculture, run weekly programs on 10 radio stations and air over 40 daily spots of one minute messages
- National Water and Sewage Corporation
- Uganda manufacturers Association
- Uganda Forestry Authority
- Ministry of health

Similarly a number of NGOs are also running radio programs specifically targeted at households and grass root communities:

- NAPE – bimonthly 30 minute environmental programs
- Environment alert
- UEEF

CHAPTER EIGHT

8.0 RECENT PROGRAMS, PROJECTS AND PLANNED EE AND OUTREACH PROGRAMS

Since NEMA and its partners started implementing the three strategies, a number of successful programs can be documented, and lessons for their success and failures recorded to learn from. Examples are summarised below.

8.1 Formal EE Programs/Projects/Activities

Table 8a: Formal EE Programs/Projects/Activities

No.	Programs/Projects/Activities	Objective(s)	Achievement(s)	Lesson(s)
1	SEEP (NEMA)	Create forum for environmental protection with involvement of students, parents & administrators in Environmental Programs in schools	Over 8,800 primary schools have this program with activities running in their schools. Environment clubs also started.	<ul style="list-style-type: none"> • A whole school approach in the SEEP can enable students to become environmental active through their participation in these activities • Some schools also learn from and teach surrounding community • Pupils are more excited about engaging in practical activities. Use these to reinforce classroom concepts • Investing in thorough training of EE coordinator fully resident in each school is integral to success of program
2	Capacity building among institutions (NEMA)	To empower institutional heads and teachers with EE knowledge which they can pass on to their students	NEMA has trained CCT coordinators, head teachers, and teachers in 27 districts	<ul style="list-style-type: none"> • Training teachers and institutional heads creates a multiplier effect and therefore is faster to spread knowledge • Involving school administrators (head teachers) important to give policy and financial support
3	Integration of EE teaching curriculum at all levels (NEMA, NCDC, MoE)	To integrate EE into the teaching curriculum at all levels of education, from pre-primary to tertiary (university)	<ul style="list-style-type: none"> • EE fully integrated in primary schools and teacher training college teaching curriculum • Integration in secondary school curriculum stopped by government 	<ul style="list-style-type: none"> • EE can be integrated into the curriculum and be targeted within the different subjects • Relying on centralised Government e.g. NCDC to integrate EE in sec. Schools can be harmful to the program.

			<ul style="list-style-type: none"> Universities are offering environmental courses and units 	<ul style="list-style-type: none"> Explore alternative or complementary ways of getting EE into schools e.g. through NGOs
4	Environmental projects with schools (NGOs, School Community)	Enhance SEEP through environmental protection and conservation money generating, networking projects	Environmental projects in schools, that are income generating, have been successful in over 8,500 schools	<ul style="list-style-type: none"> Projects funded can improve the pupils and community awareness. Schools and community can work together under the various projects to promote environment. EE projects that are income generating and become self supporting have greater chances of success
5	EE&A Competitions	Conduct interschool, district and national competitions to encourage participation	More schools in Seep are now much more active as they compete to win recognition	<ul style="list-style-type: none"> Competitions increase participation and activeness The desire to win keeps schools in constant state of readiness, slowly turning this into habit Recognition (not so much prize volume) is important for motivation

8.2 Non –Formal EE Programs/ Projects/Activities

Table 8b: Non –Formal EE Programs/ Projects/Activities

No.	Programs/Projects/Activities	Objective(s)	Achievement(s)	Lesson(s)
1.	Capacity building for lead agencies by NEMA	To acquaint them with knowledge and skills for environment and policy change	NEMA has trained 21 lead agencies in policy, enforcement, Policies and strategies have been formulated.	<ul style="list-style-type: none"> Through capacity building among the lead agencies, policies can be formulated for the better use of the environment Building EE capacity among other stakeholders gives NEMA further outreach and frees more time for NEMA officers to concentrate on coordination and supervision work
2	Capacity building of NGOs and CBOs	To build capacity among the CBOs and NGOs so that they can effectively carry out EE&A in their various countries	Built capacity in NGOs and CBOs through seminars, Created NGO directory with over 700 NGOs to implement environmental management programs	<ul style="list-style-type: none"> NGOs and CBOs once equipped with adequate knowledge and skills in EE&A, can reach areas in the community NEMA may not be able to reach NGOs have more capacity to get practical activities on the ground because they work closely with the communities and households

				<ul style="list-style-type: none"> • NGOs will buy in and implement programs on the ground if convinced the communities will benefit
3	Decentralisation of Environment Management	To gradually relinquish environmental management responsibility to the district and sub county levels	Environment management is decentralised to district level. 54/56 districts have appointed district environment officers, Districts now preparing District profiles	<ul style="list-style-type: none"> • Effective management of environment programs is better done through decentralisation where communities can own the program sustainable • Once given capacity and competence in EE&A, district and lower levels can achieve better results than national organisations because they are closer to the action areas
4	Integration of environmental programs into the planning process	To integrated EE and management into institutions plans and Action plans	Environment programs have been integrated in district plans D Env. Os have liased with district planners and have EE&A programs integrated in their District Action plans	<ul style="list-style-type: none"> • Once environment issues are integrated in the plans, implementation is easier • Environmental planning right from parishes and committees has forced integration of other activities e.g. health, crops, etc.
5	Scale up Ruharo Parish Energy saving stoves to Bushenyi District by Min. of Energy/GTZ/IFDI	Scaling up of technologies to each household	<ul style="list-style-type: none"> • Trainers and trainers trained at District, sub county, parish and village level • Stoves being taught and constructed by each household 	<ul style="list-style-type: none"> • To scale up, a cadre of trainers, project managers and monitors needs to be built at each level including villages • Having resident trained resource persons and monitors enhances chances for project success • Scaling up of technologies and reaching entire community in a short time is possible if well planned and executed • Environmental programs have successfully moved from pilot phase to 'all inclusive' stage – where whole communities benefit

8.3 Public Awareness Programs/ Projects/Activities

Table 8c: Public Awareness Programs/ Projects/Activities

No.	Programs/Projects/Activities	Objective(s)	Achievement(s)	Lesson(s)
1	Use of Mass Media (NEMA, Government agencies, NGOs)	To Reach the entire population in their local languages	Radio stations have environment programs in the local languages	<ul style="list-style-type: none"> • The media is a powerful tool that can be used in environmental awareness • Most rural communities still prefer messages in their local languages
2	Public lectures and training (NEMA, NGOs, CBOs)	To sensitise public about environmental issues through	Public Lectures are given by NEMA D Env. Os, Local Leaders are being	<ul style="list-style-type: none"> • Interactive lectures with the public

		public lectures	involved in the mobilisation of the public.	does enable the public to participate in Environmental management with more understanding of its importance
3	Formation of Environmental journalists associations	To bring together journalists and train them in environmental issues and reporting so that they can be able to report on them effectively	<ul style="list-style-type: none"> • There are two associations; Environmental Journalists Association Uganda (EJAU) and RUDMEC • NEMA – MUK are training journalists in environmental reporting • More airtime and space now dedicated to environment at no cost 	<ul style="list-style-type: none"> • Once journalists are trained to deliver environmental information, multitudes of the community members will be able to access the information. • Trained journalists contribute feature stories and messages to their organisations at less or no cost to environmental managers and programs
4	IEC production and distribution (NEMA, Government agents, NGOs)	To produce IEC materials in different languages and for different target groups and levels	Materials of IEC have been produced in different languages for the various target groups, like brochures, posters, pamphlets, and leaflets	<ul style="list-style-type: none"> • IEC materials once properly designed un understandable language and with enough production and proper distribution can cause good behavioural change in the community,

CHAPTER NINE

9.0 GAPS, CONSTRAINTS AND OPPORTUNITIES FOR TRANSBOUNDARY EE AND OUTREACH PROGRAMS

9.1 Identified Gaps in the Current EE & A Programs

Below are some of the gaps identified in the current EE & A programs in Uganda

9.1.1 Scaling up the EE&A programs (Not realised yet)

Currently, NEMA, together with other EE & A stakeholders, has had several programs piloted in different parts of the country. However after almost 10 years of operations, NEMA has covered 26 out of 56 districts. About 11 others are covered by funding from partners. This means communities 19 districts have not been able to benefit. For example in formal EE, NEMA has done a lot of work with primary schools to establish clubs and carry out several activities under the SEEP. However, a big number of primary schools have not yet benefited from these programs. In Secondary Schools, NEMA has been able to reach about 200 out of over 2000 secondary schools. This may be due to limited funding, personnel or strategy. There remains a big gap to be bridged by NEMA and the other stakeholders. There is therefore need to draw a comprehensive program for scaling up the EE&A activities to benefit the whole country.

9.1.2 Good Environmental Management and EE&A Plans are not translated into Actions and Practices on the Ground

Many seminars and mobilisation awareness programs by NEMA and its partners especially NGOs/CBOs and donors have been held at different levels. They come up with good recommendations, strategies and Action plans. However these plans often don't translate into practical activities on the ground.

9.1.3 Production Distribution and Coverage of EE materials is Still Very Inadequate

Although NEMA and its partners are producing good EE materials, the quantities produced are sometimes small compared to the target groups to be covered. For example the NEMA produces a wide range of EE & A materials NEMA produces. However, the

number of copies produced for example the State of Environment Report (60,000 copies), most of these go to offices, library and some bookshops and are practically not adequate for the entire nation. Therefore there is limited coverage and distribution creating a gap.

9.1.4 Some program areas are not Implemented

A number of program areas in the approved strategies have not been adequately tackled by NEMA. These include:

- Indigenous knowledge - FEE
- Producing the prototype training manuals – NFEES
- Promoting Environmental research - FEE

9.1.5 Annual Consultative Forum is Needed

The NFEE Strategy recommended an annual consultative forum to bring NEMA, Lead Agencies, NGOs/CBOs, Industry, Political and Civil Leaders and donors to sit together and review the previous year's performance, share successes, failures and plan together for the coming year. This activity was to go down to districts and sub counties. The lack of this annual planning and monitoring forum leaves a big gap.

9.1.6 Information flow among the stakeholders is still restricted

During an interview with Mr. Odinga William an Environmental Journalist from the Sunrise Newspaper and also a member of EJAU, it was noted that Environmental journalists do not easily access environmental information from NEMA, various Environmental NGOs and/or CBOs which they can share with the public through their media houses network. There is still a gap between those who have information, those who need to use it, and those who could relay it to the end users.

9.2 Constraints to the Current EE & A Programs

Below are some of constraints identified, which impede the fast expansion of EE&A in Uganda:

9.2.1 Limited funding to the EE & A programs

As environmental management is still a young field in Uganda, it is yet to attract substantial funding to engage more staff, produce educational materials and funding for grassroots based sustainable development projects. A lot of environmental NGOs face this problem mainly because they lack the capacity to lobby, write credible proposals and convince the potential donors and partners to work with them. There is also sometimes poor accountability leading to donor's reluctance in releasing reasonable amounts of money or give any support at all to our NGOs/CBOs. Many environmental NGOs still lack experience and some experienced personnel and managers to solicit for funding. This sector is therefore, still poorly funded.

9.2.2 People's inadequate knowledge about EE

Generally speaking, people in most sectors of the community do not have sufficient information to take up an active role in improving their environment. Problems such as draining wetlands, grass burning in range lands, digging carelessly on the hilltops and all the way to the riverbanks, etc. All these occur because of lack of knowledge of more environmentally friendly methods of using these resources.

9.2.3 Lack of trained Environmental Leaders and Change Agents

Whether in a school or village setting, there is lack of knowledgeable leaders who participate in EE&A out of deep knowledge and conviction of what needs to be done and if it is done, how it could transform society. As a result of this lack of knowledgeable human resource capacity, desirable EE & A initiatives and actions are not taken or are lagging behind. Where people are trained and given such capacity, e.g. in schools, the organization suffers when such people are transferred, allocated other duties, lose interest or even die as is common in Uganda due to HIV/AIDS.

9.2.4 Lack of Well-Established and Credible NGOs/CBOs

The environmental NGO/civil sector is still very young following almost 20 years of miss rule and insecurity when people were not permitted to form groups or hold meetings freely. Though they are many (over 700), these organisations are also centred more

around bigger towns with little presence in the rural communities. The CBOs are made up of weakly organized women, youth or religious groups. There is tremendous work required to build EE&A NGOs into strong and viable entities by giving them capacity building seminars and programs.

9.2.5 Many local languages make EE & A programs expensive

Uganda has over 50 languages and dialects. There is no common language apart from English, which is understood by less than 40% of the population. The rest use local languages for news on radios, and teaching in local seminars. This makes mounting EE & A campaigns on radios in the various local languages quite expensive. The same goes for learning materials e.g. posters, brochures, or booklets. Even if the pictures remain the same, the text has to be translated to be useful in the rural communities. Printing such work in twenty or more languages makes EE & A production costs high in Uganda.

9.2.6 Media Related Weaknesses

Lack of technical knowledge on the environment by the media, difficulty in translating environmental concepts, inadequate budget, limited radio wave coverage, and lack of deliberate policy to run environment programs in media houses, are still hindering the fast developments this sector.

9.3 Opportunities for Transboundary EE And Outreach Programs

In spite of the gaps and constraints outlined above, the Uganda EE&A scene has a number of strategic opportunities that favour the implementation of EE & A programs.

9.3.1 Enabling policies, Legal and Institutional Framework

Uganda's Environmental Management Policies, Laws and institutional framework are quite well thought out and very supportive of EE work. This enabling framework provides a wonderful opportunity for EE & A work to be integrated in the Ugandan programs quickly and effectively.

9.3.2 Centralised Education Structure

With the existing centralised education structure, especially pre-primary, primary school, secondary school, teachers and technical colleges where curriculum development is centralised and all of them sit the same national examinations, this offers a great opportunity to infuse EE&A in one curriculum that then covers the whole country. This also makes it easier to produce high quality, standard EE&A materials for circulation across the country.

9.3.3 Political Goodwill

The current President of Uganda is a very strong supporter of good environmental management practices. Wherever he gets an opportunity whether in his state of the Nation address or National Independence day celebrations, he gives a positive EE & A message. Most politicians at national and district level are fairly sensitised and give strong support to Environmental management measures. This vibrant good will provides a rare opportunity for environmental activists to have their plans and programs supported.

9.3.4 Young, Vibrant and Liberalised Media

Uganda is now experiencing a boom in liberalized media houses. These emerging media houses are competitive, progressive and want to win listenership and readership. Environment in Uganda nowadays makes news. There is a great opportunity for this communication media that covers all corners of the country to earmark space and airtime for EE&A messages, which are gaining a lot of listenership.

9.3.5 Donor Goodwill

As the Environmental NGOs mature, donors are showing preference to work more with NGOs/ CBOs who deal directly with the households at grassroots level. This trend is likely to continue and offers the NGOs an opportunity to really be supported to grow as long as they can demonstrate to donors that they can produce results on the ground and provide accurate accountability.

9.3.6 Multiple Emerging Academic Institutions

There is a remarkable boom in higher education institutions, which are now competing for students. Environmental management is one of the popular courses that attract students to the university. In this rich academic atmosphere, there is an opportunity for EE & A promoters to lobby to have EE & A integrated in every course offered in the new universities.

9.3.7 International cooperation and good relationships

With the current cooperation and good transboundary relationships between and amongst most countries within the Nile Basin, there is an opportunity for implementation of joint EE out reach and exchange programs and activities amongst practitioners from member countries.

9.3.8 Existing NGOs and CBOs;

The existing local, national and international NGOs and CBOs, which are doing a lot of work within the various communities in the country, are a good opportunity and channel which NTEAP can utilise to reach the community. Partnerships with these organisations will present an easy channel to disseminate information about how to conserve the waters in the Nile Basin while maximally utilising them for sustainable development.

9.3.9 Pending of General Elections

In 2006, Uganda will hold general elections starting from the president right down to the village local council one. This is also an opportunity for the communities to support and elect candidates who are known environmentalists or promise to take serious steps to address environmental issues. It is also an opportunity to fill the position of secretary for production and environment at local council 1, 2, 3 and 5 who will be in charge of environmental programs at their levels.

CHAPTER TEN

10.0 LESSONS LEARNED AROUND EE&A PROJECT EXPERIENCES

10.1 Lessons Learned

From the literature and interviews carried out, a number of lessons emerge and are summarized them below.

10.1.1 Communities and schools are willing to under take EE activities

Members in the community, households and schools are willing to learn as long as they realize that the new experiences to be learned are valuable to them and will help them improve their livelihood.

10.1.2 EE & A interventions must lead to tangible projects on the ground

EE & A will quickly take root if there is something tangible, a visible outcome of the learning. Wherever possible, learning should lead to practical action on the ground, which positively impact on the community and improve their quality of life.

10.1.3 Build a system, not an Individual

From the interviews conducted and the FEE evaluation carried out by NEMA, it was found time and again that where only one individual – the EE coordinator for example – sets the system around himself, it is a recipe for failure. Good, enthusiastic coordinators are essential for the system to succeed, but they must build capacity in others and the institution. Some places when one person is transferred, the system collapses.

10.1.4 ‘Scaling Up’ Beyond the Pilot Stage is Vital for Project Success

Many wonderful donor and locally funded projects succeed, but only at the ‘pilot’ stage. However programs ought to be scaled up so that they can benefit communities in the country and also ensure their sustainability.

10.1.5 Use the Power of the Media

The media is a very powerful tool. Specifically in Uganda currently, FM radios, reach most homes and neighbourhoods. Environmental Educators and leaders can exploit this tool a lot to encourage and eradicate more people at grass root level, to take desirable environmental and sustainable development actions.

10.1.6 Competitions Encourage a High Degree of Participation

According to the NEMA EE Officer, Ms. Persis Basemera, prior to 2002, many of the EE coordinators and head teachers NEMA trained in the SEEP used to go back to their schools and 'sleep'. Since NEMA introduced competitions in 2002, all schools now join in and compete. These competitions encourage the schools to become very active but also innovative and to keep their premises clean all the time, since judges can drop in any time for continuous assessment.

10.1.7 EE&A Materials are Essential for Success

For a program to succeed and have a real lasting impact on the ground, back up EE&A materials are essential. The several EE & A materials that have been designed and distributed have greatly contributed to the impact in EE & A has had in Uganda.

10.1.8 Role of NGOs/CBOs

For the implementation of EE&A to be successful, it requires involvement of all stakeholders including government, industries, donor-community, international, National and Local NGOs, CBOs, as well as the entire community. NGOs and CBOs particularly will contribute to the sustainability of the programs because they are to work closely with grassroots communities.

10.1.9 Decentralisation of Environmental Management

The Decentralisation of environmental management from NEMA to district level enables the community to own various programs and activities. In that way, the EE&A activities are sustained by the communities themselves.

CHAPTER ELEVEN

11.0 SMART INDICATORS FOR EE&A IN UGANDA

To monitor and evaluate the progress of EE&A programs, the following indicators are proposed.

11.1 Indicators for Formal EE

Table 11a: Indicators for Formal EE

Indicator	How it can be measured
EE Integrated in the school curriculum at Pre/Primary and Secondary	Reviewing the curriculum carrier subjects to see whether EE has been incorporated
Number of environmental clubs and students involved EE activities in Primary and Secondary schools and Tertiary Institutions	Carrying out surveys to establish number of schools with environment clubs and number of members in each club.
Environmental participatory activities (Field study trips, environmental audits, tree planting, soil and water conservation) carried out	Checking on Physical improvements of the school and activity reports.
Number of EE Projects/ Programs in Schools and Tertiary Institutions	Assessing the number of Primary and Secondary Schools and Tertiary Institutions with EE Projects
Number of Schools involved in the School-Community Links	Check the number of schools with School Community Linkage programs/activities
Number of Inter institutional and international environmental students and lecturers/teachers involved in exchange activities and the number of institutions participating	Review organisations reports for the number of students/teachers or professionals exchanged and number of lead organisations with exchange programs
Environment questions are being set in examinations in schools	Reviewing exam papers to find out whether environmental questions are asked
EE Questions are set in National Exams	Check UNEB PLE and UCE/UACE Question papers
Number of school and club networks operating	Assessing the school networks report within the Basin
Number of Teachers trained in EE teaching skills and integration of EE in Teaching work plans.	Analyse workshop reports
Different types of teaching manuals and materials produced for primary and secondary schools	Assessing from school reports and records the number and type of EE teaching materials received by primary and secondary schools
Number of Universities and other Tertiary institutions are offering EE Courses or Courses with EE modules or Topics.	Check Universities and other Tertiary Institutions course outlines with offering EE content.

11.2 Indicators for Non – Formal EE and Community Training

Table 11b: Indicators for Non – Formal EE and Community Training

Indicator	How it can be measured
Personnel trained in EE under the various line Ministries and Agencies.	Check Training reports for the number of trained Personnel trained.
EE&A Policies, Laws, guidelines ad Ordinances passed and integrated in key organisations	Assessing organisations and District reports to establish the New policies and laws

Number of NGOs Collaborating, Coordinating and networking with NEMA and line Ministries in the field of EE& A	Reviewing NEMA report and NEMA NGO Directories
Number and Percentage of the target population being reached by the NEMA, Line Ministries, NGOs and CBOs	Assessing the Coverage of the various EE & A programs/projects/activities be NEMA, line Ministries, NGOs and CBOs.
Amount of Resources (money) allocated to EE & A Programs/projects/Activities.	Reviewing the Financial reports of the line Ministries, Donor Agencies, and NGOs and CBOs involved in EE & A programs/projects/activities.
Number of Environmental Officers/Specialist recruited by Government line ministries, NEMA, NGOs and CBOs.	Reviewing implementation structures and staffing of the various line ministries, NEMA, NGOs and CBOs.
Number of EE & A programs/projects/activities being funded by local and international donors.	Reviewing reports for local and international donors.
The number of LECs and DES' formed in Districts	Assessing the districts and sub counties reports and meeting records environment committees that are operational

11.3 Indicators for Public Awareness and Reporting

Table 11c: Indicators for Public Awareness and Reporting

Indicator	How it can be measured
Number Of radio stations airing/promoting EE	Assessing the radio station programs to establish those with EE programs.
Number of print media houses allocating space for EE articles.	Assessing the number of newspapers, magazines allocating space to EE articles.
Number and frequency of public lectures	Check training reports for number of public lectures, seminars ad workshops conducted at national and at district level.
Amount of space/air time allocated to EE articles/programs	Check the amount of space/air time allocated to EE articles/programs.
Quality, content and quantity of IEC materials produced	Check samples and circulation of IEC materials distributed communities
Number of environmental journalists associations and their activities.	Assessing the number of Environmental journalists association and the activities they carry out as regards environmental reporting.
Number of trained Environmental Journalist.	Check environmental journalist associations official registrars and workshop reports, also media houses reports
Number of EE & A reporters workshops, seminars conducted	Workshop reports
Number of districts running public awareness Programs	District Environmental Officers programs activity reports

CHAPTER TWELVE

12.0 CONCLUSIONS AND RECOMMENDATIONS

12.1 Conclusions

From the findings and the above discussions, the following conclusions can be made.

Uganda has a comprehensive policy, legal and institutional frameworks to back up government vision of creating a more sustainable environment and use of the natural resources. However proper enforcement and implementation is still to be fully realised.

The three national strategies developed by NEMA and its partners in EE&A sectors have ably guided the activities across the country. The endorsed program areas have to a great extent been followed and implemented. A number of programs, however, are yet to be tackled fully. These include, Research in EE&A, using indigenous knowledge and developing of the prototype-training manual. While NEMA has done a good job in implementing parts of this strategy, all program areas need to be tackled.

There is great improvement in the Formal, Non-Formal EE and Public Awareness sectors despite the challenges that still exist. The presence of NEMA at the helm and the increasing number of organisations in the EE&A sector down to grassroots level promise greater success in the delivery of EE to all sectors of the community.

Public awareness in particular, has really taken off with a new momentum, especially with the many media houses available and new technologies like the Internet and the formation of Environmental Journalists Associations. This has resulted in an increase in public awareness on environmental issues, which will ultimately lead to an improvement in the environmental condition and livelihood of the people.

NEMA as the prime agency for the supervision, coordination and monitoring of all matters on the environment in the country has done a commendable job to spear head environmental activities in the country. It is doing a lot of work giving leadership and direction in all areas of environmental management. Their contribution is well acknowledged.

Due to manpower and budgetary constraints, NEMA has not been able to cover all the 56 districts in Uganda. NEMA has had official funding for only 26 districts over the ten years of its operations (1996-2006) EE & A activities in the remaining districts have been affected by this factor. However NEMA and its partners have been able to carry out some good work in another 21 districts to different levels of intervention. This effort is also acknowledged and commended.

Other lead agencies such as the National Wetlands Program, Ministry of Energy and Mineral Development, Ministry of Agriculture, Water Development Department Program and Lands Department, etc, are carrying out wide reaching EE & A programs and contributing towards creating a better and sustainable environment. All these programs have environmental management concerns integrated in them. This is a big step for EE&A in the country. It should be sustained and built on.

Donor funding and other partners who raise and chip in their own funds have supported the environment sector complementing government efforts. The donors interviewed expressed willingness to continue assisting as long as there is

demonstrated positive impact on the ground, transparency and strict financial accountability from the managers of the funded environmental projects.

Although many environmental seminars and public awareness programs have been conducted, the work on the ground does not reflect these training efforts. Many people especially at the grassroots level still lack the skills required to improve their environment.

12.2 Recommendations

Basing on the findings of this study, the following recommendations are made.

12.2.1 Scaling up of EE & A should be given priority. Every possible step should be taken by the various stakeholders to reach every household, school and organization, mobilize them, sensitise them and give them skills to start implementing activities to use the environment and natural resources available to them more sustainably and for self advancement. This can be done by mounting environment crusades, massive, national multimedia promotional campaigns similar to those mounted by the Ministry of Health for polio immunization in Uganda.

12.2.2 In addition to the promotional campaigns intensive training of trainer's workshops, should be held at sub-counties and parishes for village trainers and change agents who will train households and in actual practical environmental and resource productivity improvement skills. These trainers locally resident in villages should be in charge of monitoring performance and ensuring compliance of the households with the agreed and taught skills.

12.2.3 To facilitate faster acquisition of skills, simple manuals with guidelines for practical skills building should be developed, starting with the prototype-training

manual, followed by abridged series of the manual, posters, teaching charts and instruction sheets.

12.2.4 Environmental activities must move from paper and seminars on to the ground.

EE & A efforts in Uganda must be translated from words into action and reflected in the environmental practical activities taking place in schools, other institutions, households and demonstration plots at all government field posts and especially in NGOs/CBOs demonstration plots in the field.

Environmental interventionists should use women groups as entry points to achieve faster and long lasting results. This strategy is effective because women are the closest to the environment and natural resources, interact with them all the time and are more affected. Whether in soil and water conservation, trees for firewood, family hygiene, energy saving stoves to save cooks from smoke that cause lung cancer, it is women who are most affected. This strategy could target women groups now being organized in villages to target government projects, secretaries for women at all levels of local councils and women religious organizations such as mothers unions and Muslim women league.

12.2.5 Hold annual EE&A Consultative Forums.

The NFEE strategy stresses that an annual consultative forum should be held to bring environmental partners and practitioners together every year to; Share experiences and good practices, Evaluate the achievements of the past year, agree on priority areas at the national and local level “buy-in” in the priority areas, set new targets for the coming year and agree on a monitoring and reporting system so that cumulative achievements of the key players are recorded and national achievements tallied.

It is, therefore, recommended that;

- a) A national consultative forum be held annually for each of the three EE & A sectors, Formal, Non-formal and Public and reporting. Should resources be

limiting, then one forum bringing the three sectors to meet jointly be held. The conference would be widely representative comprising of NGOs, CBO, women and youth groups, donors, legislators and administrators. Government has used this strategy for mobilising for implementation of Universal Primary Education program and Polio Immunization with remarkable success.

- b) District Forums should first be held to prepare views for the national conference. Views should first be compiled from sub-county forums then used to compile district level fora. This will ensure a harmonized position is presented at national level, and the information on achievements and new targets will flow back to lower levels along the same channel.

12.2.6 Designate a full time officer at NEMA to coordinate with NGOs. Environmental NGOs play a key role in delivering environmental skills and goods and services right down to the grassroots. They are willing partners who are ready to put their time and other resources to achieve practical results on the ground. NEMA should utilize this good will to coordinate with the NGOs so that they agree on priority areas that can further the agenda of both parties.

12.2.7 Use the National Training trainers Team to cover the whole Country quickly. Although NEMA has the national responsibility to cover the whole country to introduce EE & A activities, with its limited human resources, NEMA cannot practically carry out this task alone. In 1998/99 NEMA trained teams of 40 national trainers for NFEE and FEE. Whom it continues to give in service training. These should be used to scale up NEMAs EE&A activities to reach all corners of the country faster.

12.2.8 Use Competitions To Build Greater Levels of Participation

Much as NGOs/CBOs and Schools are willing to participate in EE and activities voluntarily, healthy competition would really boost their interest and levels of participation. It is therefore recommended that annual competitions starting with lower levels, district and culminating in presentations of national awards on

World Environment day be held in the three areas of EE&A, FEE, NFEE and PAR.

12.2.9 Pay More Attention to Secondary Schools' EE Program

It has already been noted that NEMA's work in secondary schools has been little compared to the task to be covered. Only about 200 of 2,100 schools have been reached. Yet many of the country's youth are studying in this section of the educational system. Even if the integration of EE in the Secondary School curriculum has been halted by the Ministry of Education, it is recommended that the training of head teachers and EE coordinators and forming of EE clubs be greatly scaled up to cover the remaining 2000 secondary schools.

12.2.10 Convene an Inter-University Conference on Integrating EE into their courses

Uganda is enjoying a boom in its universities and other tertiary education institutions. To fulfil the policy directive of integrating EE across all subjects / courses from kindergarten to University, it is recommended that a national conference for integrating EE into university courses and programs be convened, and get all the institutions onto the EE path.

12.2.11 Hold an Annual Conference for NEMA and its counterparts in the region and Basin

All environmental initiatives in the country, be it industry, school, building developer, farmer, fisherman or hunter, are affected by NEMA's activities. There are similar bodies responsible for environmental management in the neighbouring countries, which share the Nile Basin. It is recommended that these bodies do meet annually, hosting on a rotating basis, to discuss transboundary issues, share experiences, and successes, in EE&A and set common targets activities.

12.2.12 Integrate the Nile Basin Initiative Concerns and Strategies into the Above recommended Activities

The NBI concerns and proposed strategies are important for all levels of EE&A interventions in Uganda. Since the whole area of Uganda falls in the Nile Basin, the concerns and corrective measures of NBI are relevant to all communities in the country. Every effort should be made by NBI managers to promote the desirable actions nationally, across all the environmental programs and have them infused in the various curricula in FEE, NFEE seminars and workshops in NFEE and the Public awareness programmes.

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APPENDICES

APPENDIX 1A: CHECKLIST FOR TERTIARY INSTITUTIONS

Institution.....Faculty(wa).....Department(wa).....Respondent.....Title.....

- 1) (i) Do you offer any Environmental Course or any course with an EE component?
 (ii) If yes which one(s) (fill in the table below.

Courses/Subjects	When started	Duration	Title after Compln.	Sponsorship	No. of Staff	Students trained yearly

Nb: If possible avail us with the course content.

2. (I) Has your institution produced any EE & A materials?
 (ii) If Yes which ones? (provide samples where available)
3. Do you carry out any EE activities out side the Institution setting? If yes which area(s) do you address?
4. Do you receive any external support? If yes what support and from who?
5. What challenges do to encounter in implementing the programs?
6. In your opinion, how can these challenges be addressed?
7. Any future plans/programs planned?
8. Any recommendations/suggestions for improving EE in;
 (i) your institution
 (ii) Uganda Generally

APPENDIX 1B: CHECKLIST FOR SECONDARY SCHOOLS

School District

School Administrator Title.....

1. Do you have a School EE program? If yes,
 (i) When did it start?
 (ii) Who is in charge of this program?
 (iii) How many teachers are trained in EE in this school?
 (iv) Have you incorporated EE in the teaching curriculum and if so in which subjects?
2. Do you have environmental promotion clubs in the school? If yes which ones?
 What activities are carried out under these clubs? Are you receiving any external support for the program? If so from who and what kind of support is it?

(ii) To the In charge of SEEP (if available and different from the current respondent)

3. Do you have any IEC materials you use in t his program? If yes which ones? Who provides the material?
4. What challenges do you encounter in the implementation of these programs? In your opinion, how can these challenges be addressed for better implementation of SEEP in the whole country?

To the a group of 3-5 students

5. Do you participate in any environmental promotion activities in your school? If yes, which ones and how often? How have you benefited from the SEEP?

APPENDIX 1C: CHEACKLIST FOR MEDIA HOUSES

(i) TV and Radio.

TV/ Radio Station..... Location:.....Freq: Coverage area.....

Estimated listenership

1. Do you air EE programs on your TV / Radio Station? If yes, please fill in the table below.

Program name	Wk day (s)	Time & duration	Issues addressed	Sponsors	Public response

(ii) Print Media

News paper / Magazine. Circulation Coverage.....

2. Do you print EE articles in your News paper/ Magazine? If yes please fill in the table below.

Common issues written on	Space allocated	Page	How often	Who pay	Public response

(iii) General:

3. Do you have environmental journalists in your media house? If yes how many?
4. What challenges do you encounter in reporting about environmental issues?
In your opinion, how can these challenges be addressed to improve one the reporting on environmental issues?
5. Any recommendations/suggestions for improving EE coverage in the country?

APPENDIX 1D: GUIDING QUESTIONS FOR COMMUNITY MEMBERS & GROUPS.(DISCUSSION)

Participants Place.....

1. Have you received any sensitisation or training in environmental issues? If yes, who does it and how often?
2. who trained you?
3. What environmental activities/issues are addressed?
4. What have you benefited from them
5. Have you identified any gap(s) in this program?
6. How can EE & A be improved for sustainable development in the community?
7. What practical Environmental activities do you carry out
 - a) As a group?
 - b) As an individual or family?

APPENDIX 1E: CHEACKLIST FOR NGOS, CBOS & AGENCIES.

Organization/ Agency..... Location

Coverage/operation area

1. Which area of EE&A and sustainable development are you engaged in?
2. What role do you play in the implementation of the national EE &A strategies whether in formal or informal education or public awareness?

3. Which programs or activities does your organization support or carry out involving educating the communities or Schools in EE and awareness?

Prog /Activity	When started	No. of Staff	Source of funding	IEC Materials	Achievements

4. Are you partnering with any government ministry (ies)? If yes, which one(s) and how?
5. Are you partnering with any NGO(s) / CBO(s)? if yes, Which one(s) and how?
6. What is your estimated population you reach? Do you know any thing about the Nile Basin Initiative? If yes
7. What challenges do you encounter in implementing EE & A components in your programs activities?
8. How can EE & A programs be improved at the National and trans - boundary level?

APPENDIX 1F: CHEACKLIST FOR GOVERNMENT MINISTRY / LOCAL GOV. DEPARTMENTS

Ministry (wa) DepartmentDistrict (wa).....Admin Level.

1. What role do you play in the implementation of the national EE &A strategies whether in formal or informal education or public awareness?
2. What Government and / or private programs do you Support?

Prog /Activity	When started	Funding source	Achievements	Future strategy	Number of staff

3. Which Organization do you partner with in the implementation of these programs or activities?

NGOs / CBOs	Partnership

4. How can we improve delivery of EE & A programs at National and trans-boundary level?

Thank you,

APPENDIX 2: INTERNATIONAL PROTOCOL, CONVENTIONS, TREATIES SIGNED BY UGANDA.

These include:

1. Convention on the continental shelf (1958)
2. Convention on Fishing and conservation of the Living Resources on the High Seas (1958)
3. Convention on the High Seas (1958)
4. Treaty Banning Nuclear Weapons Tests in the Atmosphere in Outer Space and under Water (1961)
5. Treaty on the Principle Governing the Activities of States in the Exploration and Use of Outer Space including the Moon and other Celestial Bodies (1967)
6. African Convention on the Conservation of Nature and natural resources (1968)
7. Convention on Wetlands of International Importance especially as Water Fowl Habitat (1971)
8. Convention concerning the Protection of the World Cultural and Natural Heritage (1972)
9. Convention on International Trade in Endangered Species of wild Fauna and Flora (CITES) (1973)
10. Vienna Convention for the Protection of the Ozone layer (1985)
11. Montreal Protocol on substances that deplete the Ozone Layer (1985)
12. Convention concerning the safety in the use of Asbestos (1986)
13. The convention on Biological Diversity (1992)
14. Rio Declaration, 1992
15. The Framework Convention on climate change (1992)
16. The convention on combating Desertification (1994)
17. Cairo Conference on Population and development 1994
18. Copenhagen Social Summit, 1995
19. Beijing Women and Development Conference, 1996
20. Istanbul Conference on Human Settlement, 1996
21. Rio Food Summit, 1996
22. Multilateral environmental agreements on climate, biodiversity, desertification, access to informational justice, 2004

APPENDIX 3: TABLE OF RESPONDENTS INTERVIEWED

No.	Sample group	No. and names of people/departments/institutions contacted	Comments
	Government desk officers assigned to environmental education, participation or outreach programs	NEMA, Water, Land and Forestry, Water Departments, Ministry of Agriculture, Ministry of Energy, National wetlands Program, Ministry of Gender, Ministry of finance, Ministry of Education, NCDC, Uganda Wildlife Authority, Ministry of Local Government	<ul style="list-style-type: none"> • All have relevant laws, policies, regulations and guidelines • All have active EE&A sections • Run EE&A programs • All produce IEC Materials
2	Universities,	Makerere University, Mbarara University of Science And Technology Kampala International University, Kyambogo University, Kampala University, Nkumba University, Busoga University, Ndejje University	<ul style="list-style-type: none"> • They have a number of EE Courses at Masters, Bachelors and Diploma level. • Most university courses have elective units/modules in Environment Management integrated in them
3	Other Tertiary Institutions	MIIIEDPS, Nagogera NTC, Mbale School of Hygiene, Mulago Paramedical School, Nyondo Core PTC, Lodonga PTC, Loro PCT, Kawanda Agric Research Ins, Nyabyeya Forestry College	<ul style="list-style-type: none"> • Have EE integrated in their training programs. • Some carry out practical activities and have environmental clubs/associations
4	NGO, and CBOs,	NAPE, NGO forum, UEEF, Uganda Manufacturers Association (UMA), Environment Alert, Uganda Coalition for Sustainable Development, Uganda Environmental Education Foundation, ARCOS, ACORD, Action Aid, IUCN	<ul style="list-style-type: none"> • Doing a lot of advocacy work for EE • Some have practical activities at grass root level • Most produce IEC materials out with united circulation
5	Environmental Associations	Environmental Journalists Association of Uganda, EJAU, RUDMEC	<ul style="list-style-type: none"> • Well organised • Fairly well funded with active programs • Need capacity building in EE&A concepts
6	Secondary Schools, instructors, teachers, extensions working with school clubs.	Nabinsusa Girls SS, Gayaza High, Green Hill Academy, Namagunga Girls SS, Kings College Budo, Lwala Girls SS, Kaberamaido SSS, Bubulo Girls School, Nabumali High School, Gamatui Girls, Bishop Ogezi High school	<ul style="list-style-type: none"> • Have active EE&A clubs • Carry out practical EE activities • EE integrated by

			trained teachers in their teachings
	Local mass media (print, radio, and TV)	Radios: Radio Uganda, Central Broadcasting Service, Capital Radio, Radio West, Beat FM, Mama FM, Radio Sanyu, , K-FM, Dembe FM, Radio One, Radio west, voice of Kigezi TVs: Uganda Television, WBS News papers: New vision, Monitor, Crusader, Observer, Sunrise	<ul style="list-style-type: none"> • Most radios have EE programs • Radios use local languages • Localised EE&A programs by District environment officers. • Regular coverage of EE events • Weekly EE programs
	Community members, students	Nakasero Summit Village – Kampala, Ruharo Parish Association, Bitereko WFP	<ul style="list-style-type: none"> • Express willingness to carry out EE activities • Community lack of knowledge and skills on how to manage resources and environment sustainability
	Environmental Management Authorities	NEMA	The management of EE & programs is being handled progressively.
	Environmental, humanitarian and development NGOs within the basin	Nile Basin Discourse	Though not in operation, has a good strategy to complement NBI programs.
	Bilateral and Multilateral donors working or planning EE&A.	CIDA UNDP GTZ, Horizont 3000, Netherlands, Danida, USAID	<ul style="list-style-type: none"> • Willing to fund EE&A activities especially NGOs • Substantial fund EE projects • Run programs down to grass root level • Also fund local NGOs and CBOs
	International NGOs agencies like, WWF, AWF, etc	IUCN, USAID, CARE International, Red Cross, DFID, GTZ, Netherlands Embassy, Danish Embassy, FAO, WFP, and UNDP	Funding and technical support from these organisations is a good boost to EE & A in the Region.

APPENDIX 4: EE&A INTRODUCTION LETTER

INTEGRATED FAMILY DEVELOPMENT INITIATIVES

P.O. Box 10722, Kampala, Uganda, Mob: 256-77-424719, Email: ifdi@37.com, mnrutangye@yahoo.co.uk

DATE _____

To _____

Re: Nile Basin Initiative: A Baseline Survey of the Status of EE and Awareness (EE&A) in Uganda

The Nile Basin Initiative under its Environmental and Awareness Program, with the support of UNEP, has requested us to put together a 'rapid assessment of Uganda's EE&A status'.

Could you kindly provide us any relevant information that can help us capture your organisation /departments contribution to EE&A in Uganda. The basic information could include:

- Department offering the training
- Nature of training / awareness program offered and how long
- Number of staff involved
- Practical activities carried out
- When your EE&A programs started
- How many people you have trained to date
- Your source of funding
- EE&A materials used (provide copies where possible)
- Any challenges / problems / constraints faced
- Any future plans
- Suggestions and Improvements to EE&A in Uganda

Thank you for your cooperation.

Yours Sincerely,

MARTIN RUTANGYE

EXECUTIVE DIRECTOR IFDI
LEAD CONSULTANT

APPENDIX 5: AIMS OF THE INTERNATIONAL ENVIRONMENTAL EDUCATION PROGRAM.

The IEEP aimed at:

- Developing Educational Programs (curriculum and teaching materials)
- Training Personnel through workshops, seminars and courses for teachers (Pre-service and In-service) teacher trainers, school planners and curriculum Developers
- Providing information in the field of EE through networking and the connect news letters
- Carrying out research concerning the pedagogy, content and methodology of EE
- Integrating EE in vocational and technical training
- Educating and informing the public about the environment and its problems through producing media related programs. Use new communications media, developing exhibitions in museums and creating a bank of audio/video/digital programs (Video and Computer).
- Developing university education through creating an awareness amongst the academic authorities, interuniversity cooperation, and developing of integrated EE programs
- Promoting specialist training for decision makers and administrators
- Promoting International and regional cooperation

APPENDIX 6: RECOMMENDATIONS MADE AT THE INTERNATIONAL WORKSHOP ON ENVIRONMENTAL EDUCATION DURING THE RIO EARTH SUMMIT, 1992

- EE should not be treated as a separate subject but should as a methodology that pervades the whole curriculum
- EE should be established as through multi sectoral linkages
- EE should be taught at all levels from Pre-primary to Tertiary Institutions
- To avoid Environmental glooms and doom, EE messages should be positive and hopeful and at the same time emphasise the need for action
- A shift from only awareness raising to Action is urgently needed
- Teachers should be a Priority, to achieve multiple efforts
- National and International cooperation schemes should be designed with the view to enabling exchange of information and experiences and regional levels
- Developing EE materials within different countries.

APPENDIX 7: SELECTED HUMAN DEVELOPMENT INDICATORS IN UGANDA 1980 AND 1998

	1980	1989	1998	% Change 1980/1998
Infant mortality rate (per thousand live birth)	124.0	116.0	88.0	-29.0
Life expectancy at birth total (years)	46.0	47.0	47.0	2.2
Access to safe water (% population)	11.0	34.0	46.0	+318.2
Population per physician (thousands)	24.0	22.6	18.6	-22.5
Illiteracy rate (% population age 15+)	-	58.0	38.2	-
Illiteracy rate female (% of females age 15+)	-	66.0	53.0	-
Labour force in agriculture (% of total)	86.0	84.0	80.0	-7.0
Labour force in industry (% total)	4.0	5.0	10.2	+155.0

Source: SOER 2000/2001

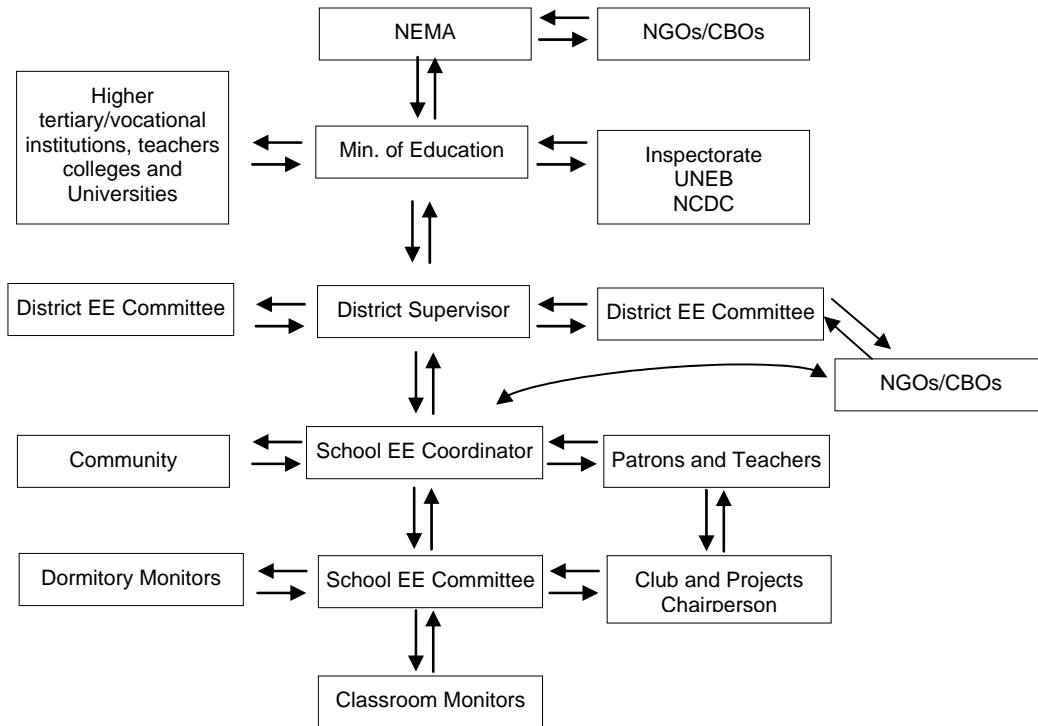
Appendix 8: List of Lead Agencies collaborating with NEMA

1. Agricultural Planning Department of the Ministry of Agriculture, Animal Industry and Fisheries
2. Department of Community Health – Ministry of Health
3. Department of Energy Resources of Ministry of Energy and Mineral development
4. Department of Geological Surveys and Mines of Ministry of Energy and Mineral development
5. Department of Physical Planning Ministry of Water, Lands and Environment
6. Department of Surveys and Mapping Ministry of Water, Lands and Environment
7. Directorate of First Parliamentary Council of Ministry of Justice and Constitutional Affairs
8. Directorate of Public Prosecutions of Ministry of Justice and Constitutional Affairs
9. Directorate of Water Development (Water Resource Department) of Water, Lands and Environment
10. Forestry Department of Ministry of Water, Lands and Environment
11. Ministry of Education and Sports
12. Ministry of Finance, Planning and Economic Development
13. Ministry of Local Government
14. National Agricultural Advisory Services (NAADS) Secretariat
15. National Agricultural Research Organisation (NARO)

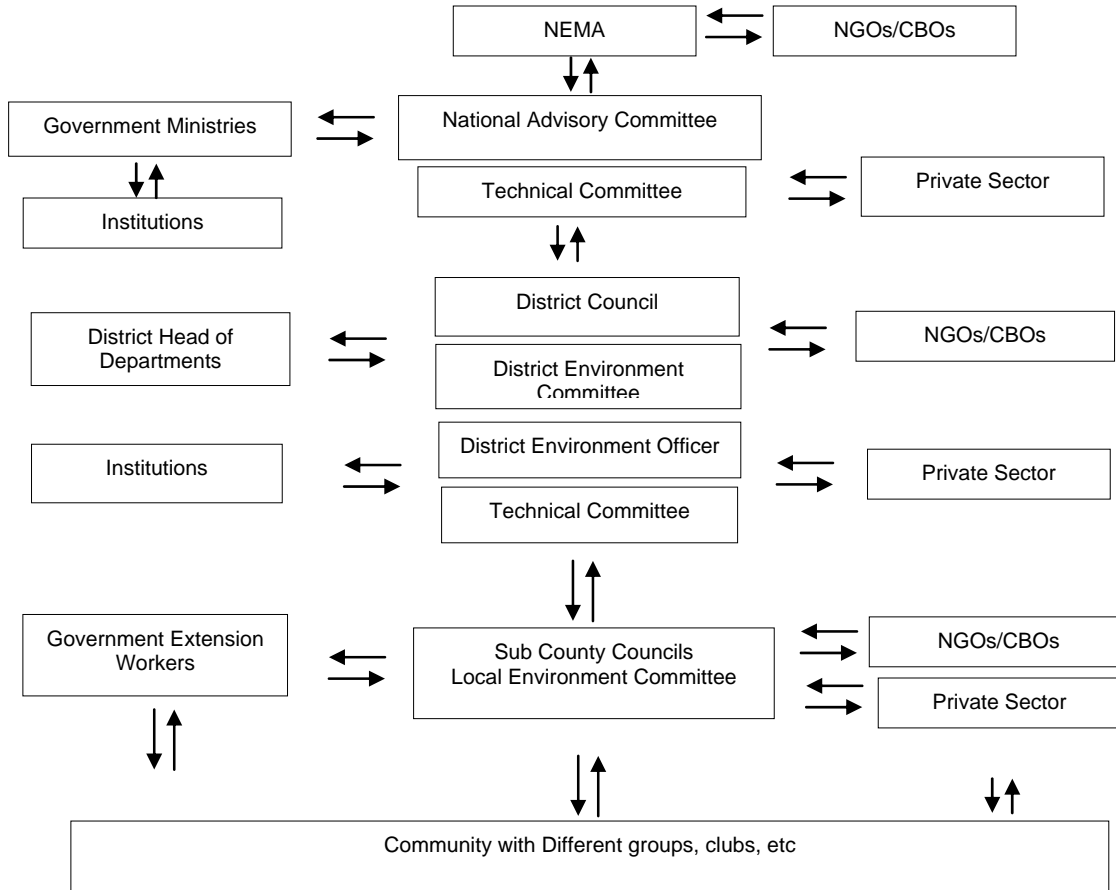
16. Program for Modernisation of Agriculture (PMA) Secretariat
17. Uganda Investment Authority
18. Uganda Police, Criminal Investigation Department (CID) Headquarters

APPENDIX 9: EE & A COORDINATION STRUCTURES

9A: Formal Environment Education Coordination Structure



Appendix 9b: Non-Formal Environment Education Coordination Structure



**APPENDIX 10: EDUCATION STATISTICS FOR PRIMARY AND SECONDARY SCHOOL IN
UGANDA**

PRIMARY SCHOOLS	2000	2001	2002	2003
Enrolments	6,559,013	6,900,916	7,354,153	7,633,314
Teachers	110,366	127,038	139,484	145,587
Schools	12,480	12,280	13,332	13,353
Drop outs	297,529	325,918	325,467	343,591
PLE registered candidates	341,917	363,328	401,575	406,563
SECONDARY SCHOOLS				
Enrolments	518,931	539,786	655,951	683,609
Teachers	30,408	30,425	37,227	38,549
Schools	1,892	2,400	2,142	2,055

SOURCE: UBOS, 2004