



REPUBLIC OF RWANDA
Rwanda Environment
Management Authority (REMA)



**Rwanda Environmental Education for
Sustainable Development Strategy
A Strategy and Action Plan for 2010-2015
May 2010**

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ABREVIATIONS AND ACRONYMS

CBO	Community Based Organisation
CSO	Civil Society Organization
DEMP	Decentralization and Environment Management Project
DESD	Decade of Education for Sustainable Development
DFID	Department for International Development
EC	European Commission
ECCD	Early Childhood Care and Development
EDPRS	Economic Development and Poverty Reduction Strategy
EE	Environmental Education
EE&A	Environmental Education and Awareness
EEM	Environmental Education and Mainstreaming
EESD	Environmental Education for Sustainable Development
EFA	Education for All
EIA	Environmental Impact Assessment
EMIS	Environmental Monitoring and Information Systems
ESD	Education for Sustainable Development
ESP	Education Sector Policy
ESSP	Education Sector Strategic Plan
FBOs	Faith Based Organisations
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICTs	Information and Communication Technologies
KIE	Kigali Institute of Education
MDGs	Millennium Development Goals
MEAs	Multilateral Environmental Agreements
MINAGRI	Ministry of Agriculture and Animal Production
MINECOFIN	Ministry of Finance and Economic Planning
MINEDUC	Ministry of Education
MINELA	Ministry of Environment and Land
MINIRENA	Ministry of Natural Resources
MOU	Memorandum of Understanding
NBI	Nile Basin Initiative
NBSAP	National Biodiversity Strategy and Action Plan
NCDC	National Curriculum Development Centre
NEPAD	New Partnership for Africa's Development
NGO	Non Governmental Organisation
NSC	National Steering Committee
OVI	Objectively Verifiable indicators
PEI	Poverty Environment Initiative
PPP	Private-Public Partnerships
PRSP	Poverty Reduction Strategy Paper
RCE	Regional Centre of Expertise
REMA	Rwanda Environment Management Authority

SD	Sustainable Development
SIDA	Swedish International Development and Cooperation Agency
SWOT	Strengths, Weaknesses, Opportunities and Threats
TDM	Teacher Development and Management
TIVET	Technical, Industrial and Vocational Education
UN	United Nations
UNDESD	United Nations Decade of Education for Sustainable Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNLD	United Nations Literacy Decade
WSSD	World Summit on Sustainable Development

FOREWORD

Education has been highlighted as an important tool for the attainment of sustainable development. In December 2002, the United Nations General Assembly adopted the resolution 57/254 that designated the period from 2005-2014 as United Nations Decade of Education for Sustainable Development (DESD). During this period, governments are expected to promote education across all sectors on sustainable development using both formal and non-formal approaches. In addition, the UN also mandated UNESCO to spearhead the implementation of the Decade by providing support to governments to develop an International Implementation Scheme. Beyond the international obligations that Rwanda takes seriously, the national policy and planning processes have placed education as central mechanism for delivery on national economic transformation goals.

Rwanda's vision 2020 aspiration places education as a key component for the envisaged knowledge society. In response to this commitment and as part of the contribution towards sustainable national development, Rwanda Environment Management Authority (REMA) is taking the lead in the development of the Environmental Education for Sustainable Development (EESD) Strategy for Rwanda. The document has been developed through a consultative process involving a wide range of key stakeholders to ensure an inclusive and high level national participation in the implementation of the strategy.

EESD provides an innovative model that encompasses public awareness, education and training to enhance the understanding of sustainable development. This is critical in mobilizing all sectors to embrace a holistic approach and concerted efforts towards fulfilling sustainable development. Importantly, the involvement of the education sector at the national level in the development and subsequent implementation of the strategy serves as crucial in reinforcing the role of education in sustainable development. It will also enable the development of knowledge, skills, perspectives and values that will empower the citizens to assume responsibility for creating and enjoying a sustainable future.

The EESD Strategy stipulates challenges facing sustainable development in Rwanda and proposes appropriate interventions and recommendations to address them. The integration of EESD across all sectors is expected to enhance the achievement of sustainable development. The strategy outlines means for engaging all stakeholders in embracing sustainable development through activities across the three pillars namely, environment, economy and society. The EESD implementation process will contribute towards increased appreciation of the need for environmental protection, conservation and preservation. In addition, EESD will offer long-term alternatives for livelihoods, enhancing equity and better quality of life for all.

The development and implementation of the EESD Strategy is therefore a major step towards attaining sustainable development in Rwanda through appropriate learning, capacity building programmes and development of skills in sustainable use of resources at all levels. I urge all sectors to embrace the EESD Strategy as a tool towards the fruition of sustainable development in Rwanda during the Decade and beyond.



Dr. Charles Murigande
Minister of Education

PREFACE

The role of environment and natural resources in sustainable development is widely acknowledged in Rwanda. However, there is still need to promote understanding of the role of environment to sustainable development and education poses a realistic opportunity to improve environmental management. The Environmental Education for Sustainable Development (EESD) Strategy for Rwanda seeks to entrench and strengthen environmental education in schools in ways that positions environment to serve as a pillar for socio-economic transformation. The achievement of vision 2020 and Millennium Development Goals (MDGs) for that matter, will depend on sustainable performance of all productive sectors including agriculture, energy and environment as a cross cutting issue will contribute to sustainability in the performance and delivery of these sectors towards national economic development objectives. Furthermore, considering the development trajectory of most emerging economies will increasingly rely on green economy, it becomes imperative that environmental education is effectively integrated in national school curricula and as such, EESD for Rwanda is timely. In line with our global mandate, the EESD also serves as a response to the United Nations declaration to designate the period from 2005-2014 as the Decade of Education for Sustainable Development (DESD).

Rwanda Environment Management Authority (REMA) in executing the national mandate for environmental management has relied on the existing government framework based on wide ranging consultation with other sectors and stakeholders to develop the strategy. The development of the EESD Strategy has therefore, drawn from national consensus and is poised to create awareness and capacity by all stakeholders in enhancing sustainable development. The EESD Strategy further outlines mechanisms for adopting a holistic approach to sustainable development by engaging all sectors and stakeholders utilizing both formal and informal channels.

The EESD strategy will therefore complement other national initiatives and stimulate peoples' perceptions and attitudes towards environmental management as a critical input towards national sustainable development. The document highlights environment as a cross cutting issue and as such seeks to integrate environmental management into other sector activities in a way that will improve performance of all sectors to ensure attainment of sustainable development. It also places emphasis on non state actors such as Public Private Partnerships and the need for concerted efforts by all stakeholders including the Non Governmental Organizations (NGOs) and community based organizations, etc.

The ESD Strategy provides a very crucial nexus with the Ministry of environment and natural resources with economic and social sectors to ensure that rational management and utilization of natural resources efficiently and effectively contributes to sustainable human development. Given that the Rwandan economy is driven by agriculture and natural resources, the sustainable use of natural resources is therefore very important to ensure economic growth and development that is sensitive to the environment.

The EESD Strategy will consequently improve national environmental management through formal, informal and non-formal education to enhance integration of sustainability across all development sectors. Finally, all stakeholders are encouraged to develop and implement their specific sector EESD Strategies in order to effectively support sustainable development for Rwanda.

Vincent Karega
State Minister in charge of Environment and Mines



ACKNOWLEDGEMENT

The Environmental Education for Sustainable Development (EESD) Strategy for Rwanda (2009–2014) has been developed by Rwanda Environment Management Authority (REMA) in collaboration with several stakeholders.

The development of this strategy addresses education initiatives in response to the United Nations Decade of Education for Sustainable Development (UN DESD). Further, it became imperative to incorporate sustainable development concerns in the Rwandan education and training delivery systems.

This Strategy would not have been possible without the contribution of several stakeholders in form of financial and technical support. In this regard, I wish to acknowledge Nile Trans-boundary Environmental Action Project (NTEAP) for the substantial financial and logistical support.

I wish to acknowledge the input of representatives from Ministry of Environment and Natural Resources (MINIRENA), Ministry of Education (MINEDUC), National University of Rwanda (NUR), Kigali Institute of Education (KIE), Kigali Health Institute (KHI), National Curriculum Development Centre (NCDC), National Commission for UNESCO and different environmental NGOs who provided valuable insights into the process.

Last but not least, appreciation is due to those who participated in various consultative forums and whose contributions further enriched the EESD Strategy. I look forward to successful implementation of this strategy by the various stakeholders who render valuable support to performance of the sectors.



Dr. Rose MUKANKOMEJE
Director General
Rwanda Environment Management Authority

EXECUTIVE SUMMARY

The Government of Rwanda recognizes the development challenges facing the country. Being party to many international agreements and conventions such as the DESD 2005-2014, Rwanda is keen and aware of its responsibilities to implement measures that promote sustainable development through different modes of education. Towards this, the government sees Education for Sustainable Development (ESD) as an opportunity to continuously build its citizens' capacity towards healthy measures for utilizing the country's resources to lead productive livelihoods and improve quality of life.

In order to improve the delivery of its mandate in promoting Sustainable Development, REMA recognizes the need to have a clear strategy for Environmental Education for Sustainable Development (EESD) through the Environmental Education and Mainstreaming Unit. It therefore became paramount to develop an implementation strategy to guide and give direction to the provision of EESD in all sectors of the economy.

A background is given consisting of the social, economic and ecological context of the country inclined towards aspects of ESD, the definition of operational terms and the government's policies on education. A SWOT analysis established gaps in the prevailing education policies with regard to Sustainable development concerns. A situation analysis revealed that the education system had missed out on building important values, knowledge and skills that recognize the importance of sustainable development. ESD provides an excellent opportunity for Rwanda to fill the existing gaps. This EESD strategy presents the goal, objectives and the corresponding strategic activities.

The strategy has prioritised areas of intervention by all stakeholders including government, private sector and civil society organizations. Specific objectives of the strategy include: Education and awareness to increase public participation in sustainable development, Capacity build future leaders to have the commitment, Expertise and leadership to ensure sustainable development; Integrate Environment and Sustainability issues in the School Curriculum to improve the quality of learning and make it relevant to the needs of the society; Capacity build the media to report and communicate sustainable development by providing Information required to address pertinent sustainable developmental challenges; Enhance the quality and relevance of Technical and Higher education to respond to local sustainable development challenges

The flagship programmes include: Promotional Programme on EESD, EESD in Primary and Secondary schools, Training Programme for the Media on EESD Reporting, Mainstreaming EESD into Technical and Higher Education programmes.

To enhance the implementation of EESD, a five year Action Plan and implementation framework has been developed.

PART 1. BACKGROUND

1. Introduction

In order to enhance the delivery of its mandate, REMA recognizes the need to have a clear strategy for Environmental Education for Sustainable Development (EESD). Recognising that REMA cannot on its own address all the environmental education and training needs in the country effectively and fully, it has to focus and concentrate on selected targets and coordinate its intervention with the work of other agencies including government, private sector and civil society organizations. The partnership approach is particularly strategic for promoting the core values and objectives of Vision 2020 as well as the United Nations Decade for Education for Sustainable Development (2004-2014). This strategy will guide the implementation of ESD programmes projects and activities within the decade. Stakeholders are expected to mainstream ESD concerns into their respective plans and activities with an emphasis on improving the quality of education, reorienting education towards sustainable development, enhancing public awareness and capacity building. A number of key outcomes are envisaged, derived from the objectives of the strategy, i.e. outreach programmes and strategy for CSOs, EESD mainstreaming strategy, 5 year work plan for the Environmental Education and Mainstreaming Unit, training programmes for training of trainers in environmental awareness raising and management.

1.1. Country Profile

Rwanda has an area of 26,338 km² with a population of 8,128,553 million (MINECOFIN, Nov. 2003). The growth rate is given at 2.6% (National Census 2002), which culminates to a population density of 321 people per square kilometre (National Land Policy, 2004). The population of Rwanda is projected at 12-13 Millions in 2020. Only an estimated 10% of the population lives in urban areas. Rwanda is therefore the most densely populated country in Sub-Saharan Africa. The lives of people are closely connected to the environment which provides the basis of virtually all economic activities. This implies that the productive and sustainable use of resources is central to socio- economic development, alleviation of poverty and the conservation of natural resources. The increase in population is creating additional pressure on the already burdened natural resource base of the country. Any development on the environment must therefore be monitored very closely.

1.2. Environmental Profile

Rwanda is a landlocked country with topography characterized by a vast number of hills and mountains, a fact which results in high soil erosion and loss of water. The critical environmental problems include:

- Over-exploitation of natural resources and inappropriate farming techniques resulting into persistent fall in agricultural production;

- Marginal lands including wetlands are now cultivated including steep slopes accelerating soil erosion and siltation to adjacent lakes and rivers. In urban areas, the wetlands are still being exploited for industrial and commercial activities;
- Although Rwanda possesses abundant water resources, the distribution of potable water is still inadequate;
- The encroachment of forests and national parks, for a variety of reasons has contributed to forest and park degradation. Therefore, the ability of forests to provide climate and ecological services has diminished;
- Approximately, 94% of the overall energy consumption of the country is derived from biomass. The increasing demand by the modern sector has necessitated searching for other sources such as hydro-electric and solar energy;
- Rural-urban migration and unplanned urban expansion is putting too much pressure on the environment;
- Waste management practices are still extremely rudimentary.

1.3. Policy Responses

The National Environment Policy developed in 2003 gives a clear outline on the management of the environment in a conducive and sustainable manner. The Organic Law No. 04/2005 also addresses issues on the conservation and protection of the environment from a legal perspective. Further to this, the forming of REMA in 2006 whose mandate is to oversee the management of environmental issues in the country together with the Country Environment Sector strategy of MINIRENA (presently known as MINELA) provides an auxiliary of the Government's commitment to conserve the environment with principles of sound environmental management as follows:

- Every individual has the right to live in a healthy and balanced environment and share responsibility for its maintenance;
- Any development activity in Rwanda shall be based on sustainable management and equitable resource use;
- Security of land and resource tenure shall be the basis of sustainable natural resource management;
- An integrated and multi-sectoral system approach to resource planning and environmental management shall be instituted;
- REMA will promote public participation of its community and clients in the protection and sound management of environment;
- Special attention shall be paid to educational and sensitization programmes in environment at all levels, with more involvement of women and youth;
- The use of environmentally sound and socially acceptable technologies shall be promoted;
- International and regional cooperation in the management of environmental resources shared by two or more states shall be recognised and given consideration.

The Rwanda Education policy objectives provide a framework for capacity building for Rwandese people for sustainable development:

- Ensure that education is available and accessible to all Rwandese people;

- Improve the quality and relevance of education;
- Promote the teaching of science and technology with a special focus on ICT;
- Promote trilingualism in the country;
- Promote an integral, comprehensive education orientated towards the respect of human rights and adapted to the present situation of the country;
- Inculcate in children and sensitize them on the importance of environment, hygiene, health and protection against HIV/AIDS;
- Improve the capacity for planning, management and administration of education;
- Promote research as a mobilizing factor for national development and harmonise the research agenda.

Rwanda's Vision 2020 is aimed at raising Rwanda to middle-income (900 USD) status over a period of 13 years now. It is also concerned about sound political, economic and environmental governance, transformation of rural economy, development of industry services, human resources development, promotion of the private sector, and regional and international economic integration. The Vision's long term objectives in this regard include:

- Integration of environment in all development policies, programmes and planning of development activities at all levels;
- Conserving, preserving and restoring ecosystems as well as protecting biodiversity;
- Ensuring optimal and sustainable level of natural resources use;
- Promoting participatory approach to environmental management.

1.4. REMA - Environmental Education and Mainstreaming Framework

The draft REMA strategic plan indicates that the Authority will ensure that between 2007 and 2011 there will be:

- Integration of environmental concerns into national and sectoral policies and legislation, plans, programmes and projects;
- Coordinated oversight of environmental management of the country's natural resources;
- Improved documentation and dissemination of environmental information;
- Enhanced compliance with and enforcement of environmental guidelines, standards and regulations;
- Improved coordination and implementation of multilateral environmental agreements (MEAs) and other national commitments to regional and international agreements;
- Increased awareness and public participation in environmental conservation and management;
- Enhanced management and coordination capacity of the Authority to implement its programmes at all levels.

The above mandates are translated into specific roles and functions, i.e. Research, Environmental Planning and Development; Environmental Regulation and Pollution Control, Finance and Administration; Legal Affairs and Environmental Education and Mainstreaming. All departments of REMA in one way or another generate educational products. The functions and roles of the Environmental Education and Mainstreaming Unit are to:

- Integrate environmental issues into primary and higher institutions of learning (school curricula);
- Collect, document and disseminate environmental information to different users;
- Supervise the dissemination of environmental information to national and international agencies;
- Facilitate outreach activities for environmental awareness raising and networking;
- Facilitate preparation and implementation of environmental training programmes and awareness raising materials for different stakeholders/CBOs and public at large;
- Coordinate the production of REMA newsletter and other technical materials;
- Integrate environmental concerns in the policy and law making process at all levels.

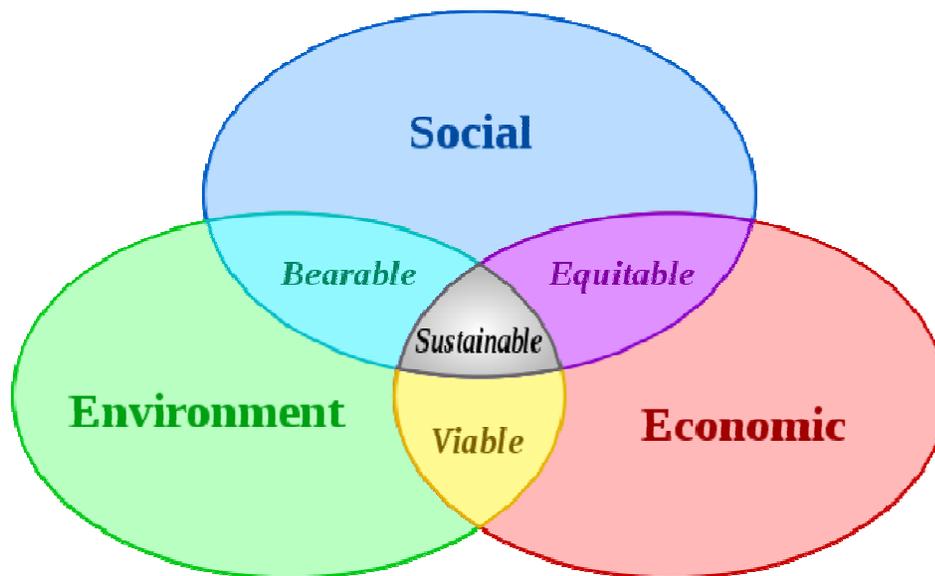
1.5. Definition of Terms

Sustainable Development

Sustainable development is defined as “the development that meets the needs of the present generation without compromising the ability of future generations to meet their needs”. The concept of sustainable development emerged in the 1980s in response to a growing realization that economic and social activities have potential to compromise environmental quality as well as lower the productive potential of natural resources. At the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, it was declared that sustainable development is built on three interdependent and mutually reinforcing pillars, namely social development, economic development and environmental protection. Sustainable development takes into account society, environment and economic factors conceptualized as pillars in order to ensure a more balanced form of development. However, it is an evolving concept embracing emerging challenges and concerns.

Various scholars have conceptualized sustainable development and elaborated different models. Hatting (2005) has developed a three-sphere model from which the figure below has been adopted.

Figure 1. Sustainable Development (Hatting, 2005)



The three pillars represented as spheres, are intertwined thereby embracing a holistic approach in the process of sustainable development. This illustration further infers that activities in one sphere may have a negative or positive impact on the other. The most important implication of the relationship between the three embedded spheres is that economic, social and environmental considerations do not each have their own logic and values separate from the other spheres.

Environmental Education and Lifelong Learning

Environment is understood to encompass the natural and built environment, socio-ecological and economic aspects of environmental issues and political dimension of environmental protection. In this context environmental education and training includes aspects related to a wide variety of environment and development issues that affect and are affected by human activities and natural phenomena. A holistic understanding of environment in the context of sustainable development is central to the definition of environmental education. The holistic view supports the interrelated principles of conservation, appropriate development, improvement of quality and good governance.

Environmental education is a continuous lifelong learning that emphasizes the complexity of environmental issues and calls for the use of different and innovative educational approaches for teaching and learning. The approaches used should be responsive to environmental issues at all levels, to dynamic contexts and needs; it should recognise different systems of knowledge,

promote knowledge and skills required and be socially transformative. These should apply to all educational sectors namely formal, non-formal and informal in order to empower all citizens to participate in environmental management.

Education for Sustainable Development

Reorienting education to sustainability requires that traditional compartments and categories of environment, economic and social aspects of development work increasingly at the interface of disciplines in order to address the complex problems of today. Ultimately, sustainable development requires education that not only continues throughout life but that is also as broad as life itself, an education that serves all people, draws upon all domains of knowledge and seeks to integrate learning into all activities.

Educating people for sustainable development should provide the skills, perspectives, values and knowledge to live sustainably and must be interdisciplinary, i.e. integrating concepts and analytical tools from a variety of disciplines reoriented to include the changes needed to promote sustainable development. ESD was first described in Chapter 36 of Agenda 21. It identified three major thrusts: reorienting education towards sustainable development; increase public awareness and promote training. ESD is therefore an emerging but dynamic concept that seeks to empower people of all ages to assume responsibility for creating, maintaining and enjoying a sustainable future. The aim is not only for the educator and the learner to understand the issues of sustainable development but also to cope with and act upon the interdisciplinarity of the issue.

The WSSD recognized two key aspects of education in relation to sustainable development. Firstly, education is the foundation for sustainable development and much of the work on ESD is closely linked to the pursuit of EFA. Secondly, education is a key instrument for bringing about changes in values and attitudes, skills, behaviour and lifestyles consistent with sustainable development. Therefore, it is a tool for addressing issues around the three pillars of sustainable development - society, environment and economy. It includes, among others, education for poverty alleviation, human rights, gender equity, cultural diversity and peace etc. The overall aim of ESD is to empower citizens to act for positive environmental and social change by giving people knowledge and skills to help them find new solutions to their social, economic and environmental issues.

ESD addresses key areas of sustainable development with culture as an underlying dimension. The vision underscores certain values in each pillar as follows:

Society: understanding social institutions and their role in change and development, as well as the democratic and participatory systems, which give opportunity for the expression of opinion, the selection of leaders, the forging of consensus and the resolution of differences.

Environment: awareness of the resources and fragility of the physical environment and the effects of human decisions and activities with the commitment of integrating environmental concerns into social and economic policy development.

Economy: sensitivity to the limits and potential of economic growth and their impact on social and quality of the environment, with a commitment to assess personal and societal levels of consumption for concerns of the environment and social justice.

ESD further seeks to promote and advocate:

- Interdisciplinary and holistic learning embedded in the whole curriculum, not just as a separate subject;
- Sharing of values and principles underpinning sustainable development;
- Critical thinking and problem solving leading to confidence in addressing the dilemmas and challenges of sustainable development;
- Different pedagogies;
- Learner-centred environment;
- Addressing local as well as global issues in appropriate means of communication to learners.

1.6. Global trends and priorities in Education for Sustainable Development

The Stockholm Declaration (1972), the Brundtland report and the 1992 World Conference on Environment and Development recognized education as a strategy for sustainable development. In December 2002, the United Nations General Assembly declared the United Nations Decade (2005-2014) of Education for Sustainable Development (DESD). Education was considered as humanity's best hope and most effective means in the quest to achieve sustainable development.

The overall goal of DESD is to integrate the values inherent in sustainable development into all aspects of learning in order to learn and acquire values, behaviour and lifestyles required for a sustainable future and for positive societal transformation. UN Decade of Education for Sustainable Development has the following objectives:

- Facilitate networking, linkages, exchange and interaction among stakeholders in ESD;
- Foster an increased quality of teaching and learning in education for sustainable development;
- Help countries make progress towards and attain the millennium development goals through ESD efforts;
- Provide countries with new opportunities to incorporate ESD into education reform efforts.

The Decade provides context and relevance for learning and addresses all levels and modalities of education, including technical, industrial, vocational and entrepreneurship training (TIVET), higher education, communication and media, corporate training programmes. Moreover, it

promotes the societal goal of sustainable development, which results from quality education programmes. The objectives of ESD in the context of DESD are:

- To promote and improve basic education, including literacy and lifelong learning for sustainable livelihoods, with emphasis on access, opportunity and quality outcomes for children and youth in and out-of-school, and adult literacy;
- To orient existing education programmes at all levels (content and processes) to promote the social, environmental, cultural and economic knowledge, skills, perspectives and values inherent to sustainability;
- To create public awareness and build understanding of the principles of sustainable development, with emphasis on the roles of the media and civil society;
- To develop training programmes for imparting skills to promote sustainability practices;
- To develop strategies at every level to enhance capacity for ESD.

In order to realize the above objectives, the Decade has proposed seven strategies. These are advocacy and vision building; consultation and ownership; partnership and networks; capacity building and trainings; research and innovation; use of information and communication technologies as well as monitoring and evaluation.

PART 2. SITUATIONAL ANALYSIS AND RATIONALE FOR ENVIRONMENTAL EDUCATION FOR SUSTAINABLE DEVELOPMENT (EESD)

2.1. Sustainable Development Challenges in Rwanda

Sustainable development issues in Rwanda are complex and interlinked. The joint DFID, EC, UNDP and World Bank report, “Linking Poverty Reduction and Environmental Management” asserts that environment is important for development because of the links between Environment and Livelihoods; Environment and Health; Environment and Vulnerability; Environment and Economic growth. These factors are the key pillars of vision 2020 and key priorities of EDPRS in Rwanda.

Livelihoods of the poor are often directly dependent on natural resources, and therefore the income dimension of poverty is determined by the quality of the natural environment. Health is an important income determinant of human well-being and the quality of water, air and settlements has a profound impact on health. In addition, the poorest are the most vulnerable to the impacts of disaster and emergencies- floods, droughts, epidemics and civil wars increase the levels of poverty as the poor do not have the safety nets to cushion against such crises.

In Rwanda, subsistence agriculture provides food security and employment to about 90% of the population. It also contributes about 36.4% to the GDP (EDPRS 2008-2012). A significant proportion of export earnings are derived from coffee, tea, tourism, and minerals. Soil erosion, is a threat that is reducing the productivity and growth of these sectors, in turn affecting the demand for non-agricultural goods in the economy. Integration of environment in the agricultural sector is crucial for poverty reduction and sustainable economic growth. To strengthen the agricultural sector’s contribution towards achieving sustainable economic growth and poverty reduction, the Poverty and Environment Initiative (UNDP-UNEP- Rwanda, 2007) recommends the promotion of awareness and skills on improved agricultural methods and technologies environmentally sound approaches.

Although the commerce and industry sector in Rwanda is very important for growth and technological improvement, it is a major user of raw materials and energy as well as a major source of pollution. It is therefore, important that development of this sector is guided to ensure sustainable economic growth and poverty reduction. There is need to promote the potential of the environmental management within the sector for private investment and Private-Public Partnerships (PPP) development.

The Rwandan economy is primarily dependent on natural resources and therefore environment and natural resource degradation has adverse impacts on economic growth and the livelihoods of a majority of Rwandans. To strengthen the economic planning sector’s contribution towards achieving sustainable economic growth and poverty reduction, the sector must adopt an integrated approach in development planning, i.e. economic growth and efficiency, fair distribution of resources and environmental sustainability.

Health is an important determinant of human well-being. According to the recent National Health Statistics, the major diseases experienced in the country are malaria, respiratory infections and intestinal worms. These diseases are primarily caused by poor sanitation, hygiene and limited access to clean water. Often the poorest of the population in Rwanda are the most vulnerable. These environmental health stresses result in reduced productivity, budgetary constraints to the health sector and lead to poor performance of the national economy as a whole. ESD is required to respond to the above issues.

Construction is one of the largest activities driving the economy. There is a lack of environmental consciousness to enable the sector integrate environment into the District Development Plans. There is a need to inculcate a sense of understanding of natural resources management and pollution prevention and control at various levels, from local communities (imidugudu), sector administration, districts, provincial administration, NGOs, the private sector, to the central government and national levels. This should be with support from a variety of stakeholders.

Although the Rwanda environmental education philosophy embraces the principles of sustainable development, the above challenges hinder its realization. Consequently, the concept of ESD is timely and is expected to provide the modalities for attaining sustainable development.

2.2. State of EESD in Rwanda

Rwanda is a signatory to the international environmental conventions and agreements including the DESD and as such has a responsibility to implement them. The government, CSOs as well as private sector have made notable ESD related responses in relation to society, environment and economic spheres of sustainable development. These include policy formulation, advocacy and public awareness, resource material development, research and innovations, capacity-building, networking, partnerships and vision building.

The Government commitment is evident in a number of development initiatives which address the importance of environmental management. The government has developed an environmental framework to enhance environmental compliance: Organic Law No 08/2005 of 14/07/2005 determining the use and management of land in Rwanda; Law No 16/2006 of 03/04/2006 determining the organization, functioning and responsibilities of Rwanda Environment Management Authority; Law No 26/2005 of 17/12/2005 relating to Investment and Export Promotion and Facilitation; Organic Law No 04/2005 of 08/04/2005 determining the modalities of protection, conservation, and promotion of environment in Rwanda. Other policy documents hanging on sustainable development include: the National Vision 2020; the Environment Policy Paper; Economic Development and Poverty Reduction Strategy (EDPRS); and provisions for EE in the Education Sector Policy.

2.2.1. Public Awareness and Advocacy

Civil society organizations have been in the frontline of public awareness and advocacy campaigns for social justice, environmental management, economic recovery and development. In this regard, several programmes have been initiated and community participation enhanced. There are some NGOs implementing environmental education and awareness in Rwanda and different media are used to report on environmental issues. Radio is the most influential channel of communication in Rwanda, but there is need to forge more partnership with all stakeholders to access environmental information.

2.2.2. Resource Material Development

Different institutions have developed several resource materials for public awareness as well as education on sustainable development themes such as anti-corruption, gender equity, HIV/AIDS, governance, poverty reduction, environmental management, the materials developed are in form of posters, banners, brochures, badges, booklets, fliers, books, symbols and audiovisuals, etc. Some private sector players have also supported in material development processes.

2.2.3. Research and Innovations

The government has clear policies on research and innovations to strengthen research centres and universities with special attention to invention, innovation and technology transfer; create and maintain synergy between researchers, research partners; business community and policy makers. However, research in institutions of higher learning has not been harmonized, adequately funded, nor equipped and staffed by qualified personnel. There is little awareness about the importance of research as a tool of modernisation and social change. There are only two government funded research institutes, "Institut de Recherche Scientifique et Technologique" (IRST) and "Institut des Sciences Agronomiques du Rwanda" (ISAR), whose role is to carry out research in science and technology as well as agriculture and livestock. (ESP, pg 14, 2002).

2.2.4. Networking, partnerships and vision building

The Public Private Partnership Project has been established by REMA and other stakeholders such as civil society, with an aim to enhance compliance to environmental requirements through regulatory and voluntary mechanisms by stimulating and strengthening partnerships which facilitate the sustainable, inclusive and participatory management of the environment focused to the EDPRS and the vision 2020 of Rwanda.

2.2.4. Environmental Education in Rwanda

The Education Sector Strategic Plan (ESSP) 2008–2012 builds upon the Government's overarching Economic Development and Poverty Reduction Strategy Paper (EDPRS) which recognises the key role that education can play to improve social and economic well-being and reduce poverty. The key priority issues to be addressed include reducing population growth rate through teaching of life skills, developing of entrepreneurship, sensitization on HIV/AIDS and promotion of environmental protection. The aim of education is to combat ignorance and illiteracy and to provide human resources useful for the socio-economic development of Rwanda through the education system (ESP, pg 7, 2002). The education sector policies comply with major international goals promotion of peace, unity and reconciliation, promotion of Rwandan culture, gender equality and social inclusion. The ESSP is consistent with the United Nation's 2000 Millennium Declaration and the Millennium Development Goals (MDGs).

The education policy has facilitated the integration of education for protection of environment and health in the school curriculum. Education policy also needs to ensure that education is of quality and relevance through increasing access to education, using an output-oriented curriculum in all schools and providing relevant text books; teacher training through both pre-service and in-service methods with the use of distance learning; imparting of good values and attitudes in Rwandese culture including those that promote gender equality and equity as well as those from outside which are relevant to national development; development competencies such as life skills, practical and entrepreneurial skills shall be emphasized at all levels of the education system; strengthening scientific and technological research in all research centres, including universities and other institutions of higher learning (ESP, pg 19, 2002).

The five year EESP has recently been integrated and aligned with the EDPRS. The purpose of education within this framework is to provide access to quality, equitable and effective education to all Rwandans in order to achieve sustainable economic growth and social development. The expected outputs include: national and decentralized systems strengthened to increase participation in the effective management of schools, improve monitoring and evaluation through Environmental monitoring and information systems (EMIS); an education system responsive to individual and national needs; curriculum revised to be responsive to individual and national needs; education resources available in adequate numbers are durable, curriculum compliant and well-utilized; sufficient numbers of teachers supported to deliver quality teaching and learning; and a strategy in place to ensure improved access retention, achievement and performance for girls and women at all levels of education.

The Nile Basin Trans boundary Environmental Education Programme has been established to enhance awareness on the nature of environment and its inter-relatedness in the basin and how its effects on communities, through enhanced public awareness, campaigns and training on Nile Basin trans boundary environmental issues; support of project-based learning NGOs to implement projects in schools; networking of secondary schools for project-based learning which includes building of teachers capacities; environmental school projects support through proposals and award schemes; enhanced networking among universities and research institutions; and

established environmental education and awareness (EE&A) working group and a network of EE&A practitioners.

EE in schools is mainly through carrier subjects. In primary schools it is through science and elementary technology and civic education, while in secondary schools it is through geography and general paper. There are environmental clubs which promote experiential learning. EE at tertiary institutions is still fragmented, compartmentalised, exam oriented and lacks a base in secondary schools. EE is offered in three main institutes, which are Kigali Institute of Education (KIE), the National University of Rwanda and Kigali Health Institute (KHI).

2.3. SWOT Analysis of environmental education for sustainable development

The SWOT Analysis below has established the need for EESD in Rwanda:

STRENGTHS

- Presence of a strong Political will on environmental conservation;
- EE has been introduced in schools mainly through carrier subjects and through clubs;
- There is high participation by civil society in creating public awareness on environmental issues.

WEAKNESSES

- Poor implementation mechanisms of EE in schools;
- Insufficient integration of environmental concerns in institutions of learning and as such limited environmental programmes;
- EE at tertiary institutions is still fragmented, compartmentalized and exam-oriented;
- Insufficient qualified personnel to instil sustainable development values into the public;
- EE is not pegged to environmental standards. The standards themselves have not yet been developed;
- EE does not holistically and adequately address development challenges and hence sustainable development;
- Inadequate information sharing among the government lead agencies as well as public and private sector organizations;
- Limited understanding by different sectors on integrating environment business issues into their planning, management and reporting processes;
- Little awareness of the concept of sustainable development and poverty environment linkages;
- Fragmented approach to developing public awareness about sustainable development.
- Current education and training lacks relevance to key sustainable development issues in focus;
- Environmental content in the curriculum is issue-based rather than linked to an inter-disciplinary education for sustainable development context;

- Lack of environmental materials and guidelines for the various public sector organizations makes it difficult for them to efficiently address environmental issues with stakeholders;
- Partnership and coordination still not strong and reluctant.

OPPORTUNITIES

- Environment is among higher government priorities;
- The decentralisation and public service reform currently being implemented across government provides an opportunity for EESD implementation at grassroots level;
- The five year education sector strategic plan (EESP) has recently been integrated and aligned with the economic development and poverty reduction strategy (EDPRS);
- The teacher development and management (TDM) policy provides a framework to strengthen teaching quality in all schools in Rwanda. The TDM policy aims to promote a range of training approaches and it supports learner centeredness;
- The development of the Technical and Vocational Education (TVET) strategy as a sub-sector policy in the education sector policy is an opportunity for improving the quality and relevance of education for sustainable development;
- The curriculum under development to incorporate environment, economic development and poverty reduction;
- A policy for adult literacy is being drafted by the Ministry of Education (MINEDUC);
- The ECCD policy and strategy is an opportunity for integrating ESD at an early stage;
- The school health policy which aims to adopt a holistic approach to school health including environment;
- Organized and willing population;
- Availability of funding/donors, e.g. Nile Basin and the Swedish International Development Agency (SIDA);
- Environmental legislation and policy in place, e.g. Land, forest water and mines under articles 6,7,40, 42, 43, 44 and 69;
- REMA's opportunity to operate through environmental committees as stipulated in the Organic Law up to the local levels;
- Environmental education and awareness is one of the main pillars of the policies and strategies put in place by the government. These include vision 2020, MDG 7 and PRSP;
- Need to improve partnership and coordination with CSOs.

THREATS

- Wide spread poverty exacerbated by the impact of HIV/AIDS and natural resources degradation;
- Conflict on natural resource use;
- Un-harmonised sectoral environmental legislation;
- Unreliable funds for environmental management;
- Population Pressure;
- Lack of adequate resources (human, financial).

PART 3. STRATEGY

3.1. Principles of EESD

The overall aim is to provide an enabling environment and capacity for all sectors and stakeholders to effectively contribute towards the achievement of sustainable development.

The proposed EESD strategy calls for all sectors in Rwanda to embrace EESD and implement the following core thrusts:

1. Improving quality of education

In regard to improving the quality of education, it is imperative to inculcate the values of sustainable development, create public awareness and understanding on sustainability, and build capacity on sustainable development. This can be achieved through:

- a. Reorientation of teaching and learning processes to make them locally relevant, culturally appropriate, age and gender sensitive, inclusive of all learners. In regard to teaching and learning, ESD should address needs in context (e.g. geographical location, socio-cultural and structural situation), perspectives and conditions in the pillar areas of ESD namely society, economy and environment. It should be presented through action-inquiry strategies with a problem solving orientation. Action inquiry strategies include action learning specifically active learning, action research, participatory action research and action science (*Ellis and Kiely, 2000*).
- b. ESD content should be interdisciplinary, holistic and embedded in the curriculum. It should be values driven and promote critical and creative thinking. Research on emerging issues of concern to ESD should inform curriculum relevance, content and context; development of different teaching and learning methods, which promote problem solving learning and participatory techniques as well as research aimed at improving teaching and learning to address sustainability;
- c. Continuous professional development of teachers/educators both in content and pedagogy from pre-service to continuing education which should redefine the role of the teacher/educator towards sustainability goals;
- d. Development of relevant teaching and learning resources (materials) reflecting issues and perspectives under the three ESD pillars and for use in the different educational settings – formal and non-formal. Research should inform the development of new teaching and learning resources
- e. EFA providing opportunities to all to access quality basic education, adequate learning facilities and appropriate learning environments as per demand along age, gender, special needs, geographical lines.

2. Orientation of education towards sustainable development

ESD should include principles, skills, perspectives and values related to sustainability (i.e., in social, economic and environmental realms). This can be achieved through development or promotion of:

- a. Curriculum framework: the curriculum should accommodate ESD perspectives informed by a critical approach/paradigm to curriculum development as opposed to a technocratic approach;
- b. Transdisciplinarily: ESD should encourage theme teaching and team teaching in different educational settings. Themes should be derived from the three ESD pillars and may include poverty, wasteful consumption, gender inequality, violation of human rights, environmental degradation, conflict, waste management, etc;
- c. Skills development for creating a sustainable future: ESD should promote decision making, problem solving, critical and creative thinking, communication (oral and written), computation skills, inquiry/research skills;
- d. Knowledge imparted: ESD should draw knowledge from society, economy and environment. The knowledge base should support sustainability goals as identified in the national ESD priorities and should capture the major issues of concern in the curriculum at different levels in formal and non-formal settings;
- e. Values and ethics: ESD should promote values and ethics such as: Respect and care for the “community of life”; Social and economic justice; Ecological integrity; Democracy, non violence and peace;
- f. Perspectives: ESD consider history and the future as well as accommodate the needs of different stakeholders, while promoting consensus and vision building.
- g. Lifelong learning: ESD should strengthen and sustain lifelong learning by empowering people to improve their livelihoods and well-being through informed decisions that are culturally appropriate and relevant.

3. Public understanding and awareness of sustainability

This helps individual communities and local governments to promote sustainability measures, by encouraging people to participate, belong and contribute to collective decision making on sustainability issues. It also helps socialize people and enhances a clear understanding sustainable development.

4. Capacity building

Capacity building for ESD encompasses all stakeholders and seeks to be appropriate, relevant and timely by providing opportunities for knowledge and skills development for all. The underlying

values of ESD include respect for the dignity and rights of all people, commitment to social and economic justice for all; respect for inter and intra-generational equity; respect and care for life in all its diversity including protection and restoration of the earth's ecosystems; respect for cultural diversity and a commitment to a culture of tolerance, non-violence and peace.

3.2. Objectives of the EESD strategy

The objectives of the Environmental Education for Sustainable Development Strategy (EESD) are to:

1. Promote education and awareness to increase public participation in sustainable environment development;
2. Capacity build future leaders to have the commitment and ability to work to ensure sustainable development;
3. Integrate Environment and Sustainability issues in the School Curriculum to improve the quality of learning and make it relevant to the needs of the society;
4. Capacity build the media to report and communicate sustainable development Information required to address pertinent sustainable developmental challenges;
5. Enhance the quality and relevance of higher education to respond to local sustainable development challenges.

3.3. Implementation of EESD in Rwanda

The foregoing situational analysis has demonstrated the need to embrace ESD as an opportunity for Rwanda to continuously build its citizen's capacity towards healthy measures for utilizing the country's resources to lead productive livelihoods and improve their quality of life. The DESD also provides an opportunity for Rwanda to develop and implement an education system and programme, which develop values that promote viable, alternative approaches to sustainable development. This strategy will build on the existing Environmental Education Initiatives in order to guide and give direction to the provision of Education for Sustainable Development in all sectors. Therefore, it will be termed Environmental Education for Sustainable Development (EESD).

3.3.1. Flagship Programmes

From the foregoing EESD objectives, the following key priority flagship programmes will be implemented:

- Promotional Programme on EESD;
- EESD Leadership Programme;

- EESD in Primary and Secondary Schools;
- Training Programme for the Media on EESD Reporting;
- Mainstreaming EESD into Technical and Higher Education programmes.

3.3.2. Strategies for implementing the flagship programmes

Several interlinked strategies will be used in order to increment the promotion and implementation of ESD. These strategies will ensure that change in public attitudes and more so, that educational approaches keep pace with the evolving challenges of sustainable development. Specifically, 10 strategies will be used to implement and support key flagship programmes on EESD. These will include:

- Advocacy , vision building and promotion of education for sustainable development;
- Capacity building, professional development and training;
- Curriculum development and orientation;
- Networking and partnerships;
- Research and Innovation;
- Public awareness raising;
- Information dissemination;
- Information and communication technologies;
- Establish Regional Centres of Expertise;
- Monitoring and evaluation.

3.3.2.1. Advocacy, vision building and promotion of environmental education

In pursuit of sustainable development, the Rwandese populaces require an aggressive awareness campaign transformed into understanding root causes of unsustainable outcomes in social, environmental, cultural and economic ventures of development. This requires that local, regional and national visions of living and working sustainably are developed by various stakeholders to capture local realities and enrich the propagated national commitment through unity across diverse contexts. In vision building, awareness will reflect a sense of social responsibility and consciousness of individuals' actions and how they affect social interaction and production in the Endeavour of development.

This strategy seeks to strengthen REMA's role in enabling policy and resource allocation decisions within political, economic, social and environmental agencies to enhance the profile of environment and ESD in order to improve peoples' quality of life. Advocacy will be central at all levels and by all stakeholders, making it become an educational process for thinking critically of the current circumstances and future. Stakeholders will in that spirit, need to maintain a permanent dialogue as part of ESD for a common agenda and in lobbying of particular issues of sustainable development through responsible media and other learning processes committed to encouraging informed and active citizenry.

Consultation among stakeholders is extremely essential in all the undertakings of ESD at every level so as to own the vision. Ownership *per se* depends on consultation and participation in the formulation processes and planning of both local and national initiatives and activities. Consultation will therefore include, among others:

- Transparent and timely dispensations of information on policy proposals and budgetary provisions by the various sectors;
- Processes to solicit inputs from stakeholders into local, regional and national plans and initiatives;
- Legislative affirmation and commitment towards ESD process;
- Public awareness campaigns that invite feedback to the process and other ESD initiatives;
- Commissioning of research.

3.3.2.2. Capacity building, professional development and training

This strategy of implementation aims at ensuring that the ESD partners and stakeholders acquire and constantly improve their capacity and skills. Therefore, capacity building and training approaches will be tailored to local needs and geared to provide knowledge and durable skills of social environmental concerns for economic development. Capacity building will focus on cultivating future environmental leaders who will work to ensure sustainable development. Leaders who are environmentally conscious and have the ability to make the socio-economic systems more in harmony with the environment through environmentally friendly products, services, businesses, technologies and policies.

Vital areas of capacity building and training include:

- Leadership in environmental management;
- Communication and public awareness that will provide avenues for networking and establishing partnership towards ESD;
- Planning, management, evaluation and analyzing skills are developed in ESD;
- Training and refresher courses for educators to promote values, attitudes and behaviour to stimulate learning that embraces issues of sustainable development;
- Instructional content and materials that are suitable and relevant to ESD are developed in all forms (written, electronic, and audio-visual) to stimulate concerns and offer knowledge in each context;
- Instructional methodologies and facilitation techniques that reflect common concerns of ESD and show a commitment towards learner-centred engagement and participation modes of instruction to open up learners to issues of sustainability.

3.3.2.3. Curriculum Development and Orientation

Environmental issues and sustainable development challenges have implications for EESD curriculum development. Some possible innovations may include developing a more holistic view

of knowledge showing how different disciplines complement each other or add value to each other in resolving problems, generating new forms of knowledge through multidisciplinary, interdisciplinary and trans-disciplinary approaches to research and learning. Innovations in the way knowledge is generated and used influences educational curriculum. In this context this strategy will promote new EESD curriculum innovations. These will include learners relying less on externally derived curriculum content (from textbooks and external research) and incorporating and critically reviewing locally, contextually relevant sources of content in the curriculum; allowing for flexibility in the curriculum design; and building new approaches to assessment into the curriculum design to allow for greater flexibility and broader learning approaches.

Integrating or mainstreaming environment and sustainability concerns may lead to reorienting curricula in learning institutions. This may mean renewing existing courses, improving the congruence of courses to address issues that are pertinent to the current context, developing future perspectives based on the present, or improving links with local communities through introducing innovations such as service learning. A more substantial transformation may be required to respond to the complexity, risk and uncertainty evident within environmental issues and sustainable development challenges. Also a more reflexive orientation to both content and methodologies that underpin curriculum design, pedagogy and research within and across disciplines will be required. Examples of curriculum changes which The Curriculum Development Centre and other stakeholders in Rwanda will need to engage in include multidisciplinary perspectives, holistic, system based approaches, problem -based learning and contextualised/case study and site based learning.

3.3.2.4. Learning support materials

In order to implement ESD effectively there is need for the production and distribution of relevant support materials. REMA, in close collaboration with the National Curriculum Development Centre (NCDC), will promote exemplary materials that are flexible and adoptable to variety of stakeholders. The materials will reflect action oriented and contextual approaches to learning.

3.3.2.5. Partnerships and networks

The effectiveness of the ESD implementation in Rwanda will depend on the strength and inclusiveness of the partnerships, networks and alliances formed by the stakeholders at all levels. Therefore, REMA's coordinating role and resource mobilization needs to be embedded by the private sector and development partners and supported by civil society networks and connections to enable the benefits of ESD to trickle down to local and grass root levels. Partnerships will therefore be established to come up with new initiatives and build on existing work and projects through building synergy and cooperation between diverse partners. A key aspect of partnerships and networking will be the regular and systematic exchange of experience and information regarding ESD.

3.3.2.6. Information Dissemination

Information dissemination is vital for efficient advocacy, awareness raising as well as promotion of EESD. This can be done through print or electronic media such as newspapers, newsletters, journals, magazines, radio and television programmes, documentaries and advertisements but also on internet websites. Towards this end, communication strategy/strategies can be developed, targeting different stakeholders (students, educators and trainers, business people among others), with messages and information on EESD. Such a communication strategy can comprise the approaches below:

- Internal communication to increase knowledge, build support for the initiative and address concerns among REMA staff and other key implementing partners;
- Establishing public participation mechanisms that will provide the stakeholders with a platform to contribute to the successful implementation of the EESD flagship programmes. Advocacy can be undertaken to change public perception and understanding of EESD and why the proposed programmes are being undertaken. The advocacy framework will identify issues/problems, solutions, “gatekeepers” who make decisions, resources; define strategies, create action plan, implement and monitor it;
- A media campaign to promote accurate and analytical coverage of EESD activities.

In order to ensure coordination in the implementation of the communication strategy the following is recommended:

- Establishment of a central source for official documents on EESD;
- A theme, logo and slogan for EESD can be developed to provide a branded platform for all communication materials at the beginning of the implementation of the communication strategy. This will enhance coherence of messages and create synergy across the different communication activities;
- Dissemination of EESD information materials, which refers to distribution of materials with an explanation of who the intended audiences are and where they should be used, handed out or displayed. Materials will be distributed efficiently and used effectively at community level.

3.3.2.7. Research and innovation

For better understanding of issues of ESD and its progress, research forms a basis of assembling information for evaluation and for seeking innovative solutions for ESD. Baseline studies, situational analysis, longitudinal studies and other sector specific/institutional demonstrations will identify and further delineate key issues to be addressed as ESD is implemented in thousands of local situations across the country. Research will also foster the ways of integrating ESD into multitude of different learning situations, geographical divides, socio-cultural context and ranges of development programmes to bring possible strategies of meeting the various challenges. Research will inform professional development programmes, policy development processes, learning support materials and current emerging approaches to ESD.

3.3.2.8. Use of ICTs

Technology offers new modes and space of learning features thus magnifying opportunity to explore global grounds for dialogue and experience sharing for mutual support in building consensus towards sustainable development. This provides the lifeline of networking by linking partners, storing data and sharing of information among all the stakeholders. Beyond these daily uses, ICTs will have particular links and implications with EESD. REMA will explore possibilities of initiating e-learning programmes.

3.3.2.9. Awareness raising and media campaigns

Awareness-raising will be achieved by involving decision makers, communities and the media in initiatives that provide a better understanding of the links between social, economic and environmental issues and its impacts on the environment and people's quality of life. REMA will prioritise training of journalists to enhance effective reporting for public education and action for sustainable development.

3.3.2.10. Monitoring and evaluation

Monitoring and evaluation will be used to assess progress of implementing the EESD strategy and the attainment of its objectives. This is expected to be an in-built exercise that ascertains the impact of the EESD process.

3.3.3. Regional Centres of Expertise

This strategy proposes the establishment of Regional Centres of Expertise (RCEs) to address local issues of the respective communities. Stakeholders in RCEs will be drawn from government, private sector, civil society organizations and development partners. These include actors in the formal, non-formal and informal education sectors (teachers, trainers at all levels of learning, researchers, NGOs, CSOs, FBOs, CBOs, communities, media); providers of content for EESD (scientists, researchers, museums, zoos, botanical gardens); students and learners at all levels; supporters of the delivery of EESD (local government officials, representatives of private enterprises, volunteers, media people, foundations, and development partners).

Functions of RCEs

RCEs will bring together organizations at the regional/local level to jointly promote EESD. They will build innovative platforms to share information and experiences and promote dialogue among regional/local stakeholders through partnerships for sustainable development. This will lead to the creation of a local/regional knowledge base to support EESD, namely:

- Re-orient education towards sustainable development, designing an integrated SD curriculum tailored to address issues relevant to the local context;
- Increase access to quality basic education that is most needed in the regional context;

- Deliver training programmes for all levels of society as well as develop methodologies and learning materials; and
- Lead advocacy and awareness raising, focusing on educators and the essential role of ESD in achieving a sustainable future.

RCEs will also promote the long-term goals of ESD, such as environmental stewardship, social justice, and improvement of the quality of life. The RCE and the stakeholders will employ the nine interlinked strategies discussed above.

3.3.4. Strategies for Integrating EESD in school programmes

- a. Advocacy for the infusion of EESD in the curriculum of Primary, Secondary schools and teacher training colleges and University. Advocacy materials such as posters, brochure and T-shirts will be developed including website for information sharing etc. EESD awareness raising seminars in all the provinces will be held and exhibitions used to share best practices and experiences. Furthermore the EESD activities will be exhibited through the media (newsletters, electronic press);
- b. Strengthen the capacity of schools to enable them to effectively integrate EESD in the Education system in collaboration with NCDC. This includes further/in-service training in integration/mainstreaming sustainability issues in various curricula disciplines, practical project management, strategic planning action learning, development of learning resources and networking;
- c. Promote EESD schools through sensitization and establishment of EESD demonstration centres on how school and communities in cooperation can target poverty alleviation on a local scale;
- d. Establishment of income generating micro-projects based on local needs in all schools to promote localizing curriculum, action learning, research and innovation and problem solving as well as enhance better performance. Development themes will be established in collaboration with schools to address local issues such as water, energy, health, agriculture, waste, and biodiversity;
- e. Develop simplified EESD learning and teaching supplementary materials (handbook, starter pack, theme packs and teachers guides). Electronic curriculum support materials (video tapes and radio programme scripts) will be developed;
- f. Establish networks and cooperate with relevant government, private sector and civil society organizations to implement EESD. Schools will require support actions which will include micro project investments; technical assistance for micro project implementation in schools targeting poverty alleviation; training of teachers and community representatives in micro-project implementations; training of teachers in EESD provision of EESD teaching materials; support for network interactions between schools and community groups;
- g. To enable all primary and secondary schools to implement EESD innovations at national competitions with attractive awards to be won. In collaboration with the Quality assurance office evaluate/monitor the integration of environmental education in lesson plans, schemes of work by teachers in schools;
- h. Policy statements on implementation of EESD in schools.

3.3.5. EESD in primary and secondary schools

The integration of EESD in schools will aim at achieving sustainable environmental management at the local level through schools. Using schools as spring-boards for reaching communities, the programme will offer a flexible way of supporting EESD processes at school level through integrating development experiences with classroom studies and applying certain principles and guidelines to the day-to-day running of schools. This will enable schools to solve real/ existing environmental problems while planning in advance to prevent future advent of adverse environmental impacts.

The programme will improve:

- Lesson planning and resource material development;
- Methodologies of EESD delivery, i.e. by fostering action learning;
- Project management and problem solving;
- Public awareness campaigns and advocacy skills in environmental conservation;
- Local curriculum development and implementation.

EESD areas of focus will be:

- a. The promotion and improvement of quality of education
- b. Re-orienting existing education systems at all levels to address sustainable development at local level through localising the curriculum with schools as entry points. Therefore stimulating schools and community partnerships and providing principles, skills, perspectives, and values related to sustainability:
 - Collaboration and cooperation including communication skills via internet;
 - Community based approaches, empowering youth, women and other vulnerable groups;
 - Biodiversity conservation, social well being and sustainable livelihoods;
 - Knowledge and critical thinking;
- c. Develop public understanding and awareness of sustainability through sensitisation activities, with schools relaying sustainability messages across to community members;
- d. Training of trainers in Environmental Education for Sustainable Development, i.e. training in micro-projects establishment, localising curriculum, learning resource development etc;
- e. Engage multiple stakeholders to participate in educational activities including government, civil society and private sector particularly in the establishment of micro projects.

The following strategies will be employed:

- Advocacy, campaigns and vision building the integration of sustainability environmental sustainability issues in the school curriculum, demonstrating focus areas and action plans to address environmental and development issues;
- Capacity building and training of teachers in teaching methodologies in the integration of environmental concerns in the curriculum;

- Use of Information Communication Technologies (ICTs) between students and teachers in sharing experiences through the school linkages and network activities;
- Monitoring and evaluating the outcomes of micro-projects and other learning activities to assess impacts of problem solving environment and poverty related problems in schools and community groups;
- The Awards of performing schools as per the EESD schools criteria to provide motivation and recognition for quality learning and school improvement;
- Consultation and ownership of environmental initiatives facilitated through EESD school committees;
- School community partnerships;
- Innovation via the establishment of school and community projects;
- Community participation in the establishment and implementation of learning programmes particularly through the design and implementation of micro-projects which allow for the integration of community ideas. This will result into concrete actions and visible spin-offs.

At school level, the activities may involve establishment of school sustainability audits, developing of school action plans and policy statements, monitoring and evaluation of activities, teaching from the local environment, informing and involving the school and the wider community. The learning programs in schools will therefore be tailored to make EESD not as an additional subject, but to incorporate it into existing programmes. The aim is to enable all members of the school community to participate in the implementation of environmental micro-projects and the sustainable development of the local environmental resources.

3.3.6. The Outreach and Partnership Strategy in EESD

3.5.1. Stakeholder participation

Environmental management is demanding with numerous challenges. Effective environmental management therefore requires the participation and ownership of all stakeholders who have unique roles to play. EESD is therefore a partnership initiative of which REMA needs to first of all share its EESD vision and mission and then develop coordination mechanisms for effective collaboration and linkages as well as working relationship with all lead agencies and other stakeholders in all sectors in every part of the country. This will call for a multi-sectoral process, participation, collaboration and synergy with government departments, CSOs, private sector the media and development partners.

3.3.7. Partners in EESD

<p>a) Government Agencies Assemble the stakeholders and laying the infrastructure for realization of EESD</p> <ul style="list-style-type: none"> • Ministries and Departments including: [Ministry of Environment and Lands (MINELA), Ministry of Agriculture and Animal Resources (MINAGRI), Ministry of Education], NCDC • Parastatals (state corporations) • Local authorities • Schools/ The youth • Higher learning and research institutions • Parliament 	<p>b) Civil society Organizations Network and collaborate with other stakeholders to advocate for and complement attainment of EESD objectives.</p> <ul style="list-style-type: none"> • NGO Councils and NGOs • Faith-Based Organizations and institutions • Professional associations and Trade unions • Community-based organizations (CBOs)
<p>c) Private sector Support entrepreneur programmes and practices that enhance realization of EESD</p> <ul style="list-style-type: none"> • Corporate companies • Business community (formal and informal) • Business associations • Cooperative societies 	<p>d) Development partners Support the implementation of EESD process.</p> <ul style="list-style-type: none"> • Bilateral partners • Multilateral partners • Inter-governmental agencies <p>e) Media – communicate and create awareness and education</p>

REMA together with stakeholders will guide the EESD process through popular participatory processes at all levels. These consultative popular participatory processes will ensure ownership, resolution of divergent views and approaches and promote sustainable development. They will also ensure linkages to relevant national and international commitments including Vision 2020, the New Economic Partnership for African Development (NEPAD), Africa Union (AU), EFA, MDGs and UNLD, etc.

The stakeholder consultative processes will focus on:

- Development of modalities for strengthening existing educational plans to reflect commitment to ESD including identification of key national issues in sustainable development and messages for raising public awareness and setting national EESD objectives;
- Identifying the financial needs and resources for implementing EESD during the Decade including existing programmes and new initiatives;
- Additionally, set up financial mechanisms to support governmental, private sector and civil society initiatives.

Government Agencies Partnership in EESD

All Government sectors have an inherent relationship with environment giving them great advantage and opportunity in promoting sustainable development. This provides an excellent entry point for participation and integration of environmental and sustainability concerns into development. REMA will coordinate policy development since it has statutory powers and capacities. Government agencies will complement this and also promote the infusion of EESD concerns into the existing sectoral policies as follows:

- Facilitate development of a national policy framework for EESD;
- Avail and mobilize resources;
- Support EESD interventions in all sectors;
- Foster public awareness, participation and capacity building on EESD at all levels;
- Mainstream/integrate EESD into the curriculum;
- Monitor and evaluate EESD implementation;
- Domestic relevant international agreements that relate to EESD;
- Strengthen networking on EESD.

This will directly or indirectly steer change in instructional practices at all levels in the development of knowledge, skills, attitudes and behaviour related to the sustainable development.

The National Curriculum Development Centre

The National Curriculum Development Centre (NCDC) ensures that all school curricula are well-understood and effectively used by teachers via regular visits to schools, training seminars to orient teachers, periodic reviews, research and evaluation of curricula. NCDC attaches great importance to ensuring continuing education and training and the encouragement of individual and collective research programmes in Sciences and Arts.

The NCDC will play a pivotal role in the implementation of the EESD strategy by:

- Integration of EESD into the existing curricula at all levels: primary, secondary, technical and professional education, in partnership with other partners;
- Research, design, production and distribution of high quality appropriate EESD learning materials for education at all levels: primary, secondary, technical, professional and adult education;
- Preparation of teacher's guides, learner's textbooks and other pedagogical materials on EESD;
- Provision of pre and in-service training for teachers on use of new EESD oriented materials;
- Evaluate use and impact of learning support materials produced.

Civil Society Organizations' Partnership in EESD

The civil society and the general public influence decision making systems based on the level of understanding, physical location, knowledge, experience and presence. They also serve as leaders and conduit for bringing small, local and innovative experiences to the attention of government and the general public. REMA and Civil society will together advocate and lobby for EESD by linking communities with existing policies. In particular, civil society shall play a catalytic role in promoting EESD through:

- Advocacy for policy reform and legislation that recognizes the importance of public engagement in EESD;
- Adoption of popular participatory learning and action;
- Promote community involvement through awareness and education programmes at the grass roots level through publication of books, journals, magazines, newsletters, and pamphlets for distribution as a means of sharing information relating to EESD;
- Capacity building by providing training, materials and information at both the national and local levels;
- Research activities at the social level (policy, legislation, contemporary issues) so as to improve the understanding of the relationship between society and sustainable development;
- Networking and partnerships to enhance sharing of information and good practices on EESD.

The youth represent a large proportion of the Rwandan population and the leaders for future generation of the country. They will therefore provide a great potential in environmental conservation activities due to their large numbers and energies. EESD will provide a forum for youth to participate in environmental conservation activities. Youth partnerships will be through learning institutions such as schools, colleges and universities as well as organized groups. Involvement of the youth will enhance environmental consciousness and encourage good environmental practices for future generation. Youth activities will include poems, art/music, drama, debates and environmental projects/activities and campaigns and community work.

Private – Public Partnership in EESD

The private sector largely depends on the natural resource base as raw materials for production of products and services. However, the private sector often degrades the environment through generation and poor waste disposal, effluent discharge and emissions into the environment. As such EESD offers a forum for public and private sector partnerships in environmental conservation.

Private sector will promote EESD by providing opportunities for practical demonstrations of sustainable development. The private sector has associations that are expected to facilitate rapid adoption of EESD principles, programmes and implementation. In this regard, the private sector should be fully engaged at all levels. More importantly, private sector is strategic in promoting

sustainable consumption and espousing sustainable production and imparting knowledge, both through its advertisements and their capacity building programmes. The industrial and service sectors will provide platforms for identifying challenges in sustainable development. They will also design and facilitate the development and testing of intervention measures.

The contribution of the private sector will therefore be at the following phases of their respective activities:

- Entrepreneurial initiatives and training;
- Management models and approaches that enhance corporate responsibility;
- Implementation and evaluation of EESD;
- Development and sharing of practices of sustainable production and consumption;
- Provision of forums to identify inherent challenges in implementation of EESD;
- Identification of necessary learning needs to embrace EESD;
- Encouraging individual business practitioners to adopt practices that will enhance EESD.

Media Partnership in EESD

The media is an important stakeholder in education for sustainable development and awareness creation. The key advantage of the media is its ability to reach different audience simultaneously with uniform messages. The main channels of communication include print and electronic media such as newspapers, radio, television and cinema among others. As such there is need to work closely with the media to enhance coverage of accurate information in the news, events, programmes and documentaries on topical environmental issues. It is expected that this will help influence positive attitudes and change of behaviour.

Media shall integrate EESD and sustainable development awareness building in communication strategies. The media can run programmes that promote, inform and entertain in line with EESD. Private, public sectors, civil society or individuals shall be encouraged to sponsor such programmes and hence, play a pivotal role in shaping change of attitudes towards sustainable development.

Donor Partnership in EESD

In liaison with other stakeholders, development partners will foster partnerships in the spirit of enhancing the Decade of ESD in Rwanda.

3.3.8. Coordination of EESD

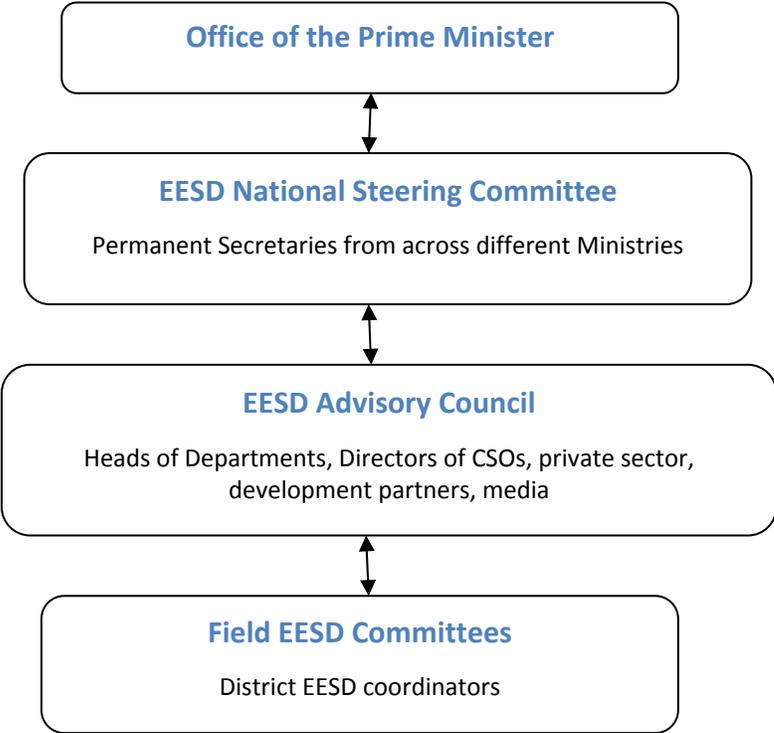
The Office of the Prime Minister will spearhead and co-ordinate the implementation of the EESD programmes supported by stakeholders with regard to the Flagship Programmes prioritised.

A National Steering Committee (NSC) composed of Permanent Secretaries from across different ministries will steer the EESD process. The NSC will continuously monitor opportunities to build partnerships that enhance the integration of EESD into all education and environment programmes and review progress on the strategic plan and update it as necessary. The NSC will also ensure regular and timely dissemination of information on EESD initiatives nationally.

An Advisory Council, convened by REMA-EEM, will be constituted with membership drawn from various heads of departments/organizations to ensure that REMA remains abreast of national trends and issues in EESD, and to oversee the mainstreaming of EESD concerns in their respective plans and activities.

District EESD coordinators will coordinate activities at the grassroots level.

Figure 2. Coordination of EESD



Resource mobilization

The ESD Strategy requires financial resources for its implementation. There is need for all implementing institutions to fund raise through both national budgetary and development partners and the private sector. Human and financial resources are required for all the flagship programme areas.

PART 4 – ACTION PLANNING

Flagship Programmes

Flagship Programme 1. Promotional Programme on EESD

Objective: Promote education and awareness to increase public participation in sustainable environment development

Strategy	Objective	Activities/ projects	Expected Outcome	OVis	Implementing Agency	Time Frame	Budget	Source of Funds
Advocacy and Promotion of EESD	Promote EESD awareness at all levels and all sectors	Develop a communication strategy and awareness raising activities for EESD	Increased public awareness and participation in environmental SD	No. of review reports	REMA , other government agencies and departments, National EESD steering committee, NCDC, institutions of higher learning, research institutions, CSOs, private sector	5 years		Government & Donors
		Review of education policies to integrate education for sustainable development	EESD policy and curriculum formulated and implemented	Communication strategy Policy & Reports				
		Integrate/Mainstream sustainable development principles in Learning institutions	EESD resources/guides for mainstreaming EESD developed	No. of Tools/materials for integrating/mainstreaming EESD				
		Establishment of a clearing house mechanism for information sharing (using ICT) and coordination related to the Decade for ESD	EESD resource centres established	No. of Clearing houses/resource centres established				
		Establish Institutional linkages on EESD, Regional Centres of Expertise	EESD networks and RCEs established	Number of Institutional MoUs				

Capacity Building/ Professional Development and Training	Equip educators/trainers with competences to include SD in their programmes	Design appropriate EESD awareness, e-learning and training programmes for all stakeholders Promote and support the development of EESD programmes for different Sectors	Improved skills in mainstreaming SD Effective training of trainers in EESD	No. of programmes developed No. of Institutions trained No. of MoUs with stakeholders Reports	NCDC, learning institutions government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government & Donors
Learning Support Materials	Promote the production of EESD support materials for a variety of stakeholders to enhance the mainstreaming of EESD	Develop a variety of materials such as handbooks, guides, resource books, policy and media briefs, documentary both print and electronic Develop EESD website Disseminate support materials to various stakeholders	Enhanced information and awareness on EESD Website developed EESD resource materials available	No. and different types of materials produced and disseminated Website updates No. of Institutions that have received support materials	NCDC, learning Institutions, government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government and Donors
Networking and Partnerships	Promote local and International cooperation in EESD	Build a database of relevant EESD best practices and success stories for replication Develop and strengthen networks and RCEs with key EESD partners	Enhanced information sharing at local and international levels Enhanced collaboration and partnership in EESD activities	Data base of courses and materials No. of MoUs with partners	Learning Institutions, government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government & Donors

		Support networks and RCEs in the implementation of their UNDES D activities	Co-ordinated activities & Effective networking to enhance EESD practice	No. of Action plans for the UNDES D Reports				
Research and Innovation	Promote research on new and innovative approaches to EESD teaching and learning strategies	Conduct research and identify innovative EESD strategies	EESD innovations developed	Research reports	Institutions of higher learning, government, research institutions, NCDC, National EESD steering committee	5 years		Government & Donors
Monitoring and Evaluation	Monitor the progress of implementation of UNDES D activities	Develop monitoring tools and carry out the evaluation	Progress reports	Monitoring tools Report	Institutions of higher learning, government, NCDC, National EESD steering committee	5 years		Government & Donors

Flagship Programme 2. EESD Leadership Programme

Objective: Capacity build future leaders to have the commitment and ability to work to ensure sustainable development

Strategy	Objective	Activities/Projects	Expected Outcome	OVis	Implementing Agency	Time frame	Budget	Source of Funds
Advocacy and Promotion of EESD	Produce a high cadre of leaders in EESD	Mobilize more institutional partners involved in the REMA Environmental Leadership Programmes Develop an EESD leadership programme Facilitate the development of appropriate Sectoral EESD Leadership programmes	A high cadre of leaders in EESD from government, private sector and Civil Society.	No. of leaders trained & Leadership guides and modules	REMA and other government agencies and departments, National EESD steering committee, NCDC, institutions of higher learning, research institutions, CSOs, private sector	5 years		Government & Donors
Professional Development and Training Programmes in EESD for Decision Makers from all sectors	Equip stakeholders/learners with leadership skills in EESD to be able to respond to local contexts	Develop EESD Leadership training and e-learning courses in environmental management for Decision Makers	Decision makers able to make sound and holistic decisions for SD	Training reports No. of Institutions /groups trained	NCDC, learning institutions government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government & Donors
Learning Support Materials	Develop an EESD Leadership publications series of resource materials	Develop resource materials (training manuals, guide books and electronic materials) for leadership programmes	Resource materials for leadership programme	No and types of materials /developed	NCDC, learning Institutions, government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government & Donors

Networking and Partnerships	Promote EESD leadership networks and partnerships between industry and community	Establish appropriate, collaborative initiatives and networking activities on EESD leadership such as RCEs	Partnerships in EESD leadership training	No. of partnerships and MoUs No. of activities/ programmes with partners No. of meetings of leaders, newsletters, website initiatives, etc)	Learning Institutions, government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government & Donors
Research and Innovation	To validate the EESD leadership programme	Investigate concepts and skills being developed in the EESD Leadership Programmes and instructional strategies and processes appropriate to the enhancement of programme outcomes	Appropriate Curricula, content and strategies for the leadership programme	Reports	Institutions of higher learning, government, research institutions, NCDC, National EESD steering committee	5 years		Government & Donors
Monitoring and Evaluation	Evaluate the outcomes of the EESD Leadership Programmes and revise/expand accordingly	Develop monitoring and evaluation tools for EESD Monitor and evaluate the impact of the Leadership Programme on decision makers Develop and disseminate regular briefing materials for the media on the EESD Leadership Programmes	Evaluation criteria and benchmarks	Evaluation reports	Institutions of higher learning, government, research institutions, NCDC, private sector, National EESD steering committee	5 years		Government & Donors

Flagship Programme 3. EESD in Primary and Secondary Schools

Objective: Integrate Environment and Sustainability issues in the School Curriculum to improve the quality of learning and make it relevant to the needs of the society

Strategy	Objective	Activities/Projects	Expected Outcome	OVis	Implementing Agency	Time frame	Budget	Source of Funds
Advocacy and Promotion of EESD	Enhance and strengthen the incorporation of EESD in the School education system	<p>Evaluate and review the current curricula to establish gaps for EESD</p> <p>Develop Curricula, guidelines, action plans and indicators as a way of fostering EESD in schools</p> <p>Develop Action learning programmes such as the eco-schools including the use of IT to involve learners promoting EESD</p> <p>Identify and Develop best practice demonstration activities on EESD</p> <p>Develop a communication strategy and awareness-raising on EESD</p>	EESD needs for Primary and secondary schools established	<p>Reports and No. of policy briefs.</p> <p>No. of EESD guidelines developed</p> <p>No. of Action learning programmes</p> <p>Communication strategy</p>	<p>NCDC</p> <p>Primary and Secondary schools</p> <p>Institutions of higher learning, government, research institutions</p> <p>EESD National steering committee</p>	5 years		Government & Donors
Professional Development and Training	Empower trainers to mainstream EESD in the school curriculum	Train the trainer's (TOTs) through workshops to develop skills to implement the EESD Programmes	Trainers able to integrate EESD in the school curriculum	Workshop reports	NCDC KIE	5 years		Government & Donors

Learning Support Materials	Promote the development of innovative learning resources on sustainable development issues for schools, incorporating the use of ICT	Document best practices in EESD to disseminate and enhance replication Develop a comprehensive teaching and learning tools to enhance the incorporation of EESD into the school curriculum	Data base on EESD for schools EESD tools and resources for schools	No. and types of EESD data bases developed Type and No of tools developed	NCDC KIE Institutions of higher learning, government, research institutions National EESD steering committee	5 years		Government & Donors
Networking and Partnerships	Promote public and private sector partnerships for EESD in school	Mobilize stakeholders and establish regional and sub regional forums, such as RCEs, that bring together stakeholders from various sectors to share experiences on EESD practice Establish EESD micro-projects and centres of excellence to serve as collaborating centres and focal demonstration points	EESD Partnerships and networks Support services for EESD in schools Sustainability of the EESD programmes	Number of regional forums Types of support services No. of Centres of excellence	Learning Institutions government, research institutions, CSOs, private sector, National EESD steering committee	5 years		Government & Donors
Research and Innovation	Identify and Validate innovations for EESD in schools	Conduct research to establish EESD gaps in the school and appropriate innovations	Value of EESD established Potential innovations for EESD identified	Reports Policy briefs	Institutions of higher learning Research institutions	5 years		Government & Donors
Monitoring and Evaluation	Evaluate the integration of EESD in Primary and Secondary Schools	Develop monitoring and evaluation tools for EESD			Research institutions	5 years		Government & Donors

Flagship programme 4. Training the Media on EESD Reporting

Objective: Capacity build the media to report and communicate Information to create awareness on actions required to address pertinent sustainable developmental challenges

Strategy	Objective	Activities/Projects	Expected Outcome	OVI	Implementing Agency	Time frame	Budget	Source of Funds
Advocacy and Promotion of EESD	Raise awareness through the media of environmental and sustainable development issues and important education activities required	Document and disseminate regular information on best practices in Sustainable Development	Improved public awareness and participation in sustainable development	Media briefs Reports	Media Institutions, National EESD steering committee, government, research institutions, CSOs, private sector	5 years		Government & Donors
Professional Development and Training	Equip journalists with skills for EESD reporting to create awareness on actions required to address pertinent developmental issues in Rwanda	Training of journalists on how to integrate EESD in Media reporting	Skilled journalists in EESD media reporting	Reports	Media Institutions, institutions of higher learning, NCDC, National EESD steering committee	5 years		Government & Donors
Learning Support Materials	Promote the development of a resource base for environmental journalists	Develop a manual/handbook on EESD reporting to be used by training institutions and media organizations	Media information kits/sheets on sustainability issues	Types and no. of Resource Kits	Media Institutions, institutions of higher learning, NCDC	5 years		Government & Donors

Networking and Partnerships	Foster the exchange of information and support the establishment of networks and partnerships	Establish Partnerships between different sectors and environmental journalists to enhance EESD media reporting Exchanging information on existing and emerging environmental and sustainable development issues	Sharing and exchange of information	No. Of MOUs	Media, government, research institutions, CSOs, private sector, National EESD steering committee, RCEs	5 years		Government & Donors
Research and Innovation	Review media strategies in the implementation of EESD programmes for development of innovative tools and incorporation of ICT	Review media strategies	Improved media strategies and more use of ICT	Reviewed media strategies and innovations	Media, institutions of higher learning, National EESD Steering Committee			Government & Donors
Monitoring and Evaluation	Evaluate impact of EESD reporting	Develop monitoring and evaluation tools for EESD Monitor and evaluate the implementation of EESD reporting			Media, institutions of higher learning, National EESD Steering Committee	5 years		Government & Donors

Flagship program 5. Mainstreaming Environment and Sustainability into Technical and Higher Education

Objective: To enhance the quality and relevance of higher education to respond to local sustainable development challenges

Strategy	Objective	Activities/Projects	Expected Outcome	OVis	Implementing Agency	Time frame	Budget	Source of Funds
Advocacy and Promotion of EESD	Create awareness of the importance of integration of sustainable development issues and practices into higher & technical education	<p>Develop a communication strategy for EESD</p> <p>Awareness-raising and sensitization on transformative learning processes and new ways of thinking about teaching, research and community engagement</p> <p>Establish programmes to promote mainstreaming of environment and sustainability into higher education</p> <p>Develop EESD Action plans</p> <p>Develop and disseminate regular briefing materials for the media on REMA initiatives promoting sustainability in technical and higher education</p>	<p>Improved participation of universities in responding to sustainable development challenges</p> <p>Changes in teaching, learning, research and community engagement</p> <p>Changes in university systems and management</p>	<p>Reports</p> <p>No. of university EESD policies</p> <p>No. of institutions mainstreaming EESD</p> <p>Action plans</p> <p>Media briefs</p>	Research & Institutions of higher learning, National EESD steering committee	5 years		Government & Donors

Professional Development and Training	Build competences to integrate sustainable development into learning programmes in order to respond to environment and sustainability issues	Develop and offer training of trainers (innovative teaching and learning methods, plus online support on pedagogy, ICT, tutoring, continuous lifelong learning, flexible learning etc. Pilot EESD programmes Develop capacity building programmes that enhance the abilities of universities to practice 'sustainability' science and work with local communities on relevant sustainable development problems	Enhanced integration of sustainability issues into courses and management practices EESD innovations in teaching , research and community engagement New EESD oriented degrees and careers Change in Curriculum and teaching practice	No. of Reports & training sessions Training manuals No. of pilot programmes	Higher learning, Institutions, National EESD steering committee, UNEP - MESA programme	5 years		Government & Donors
Learning Support Materials including ICTs	Enhance support materials and resources for the integration sustainability issues in higher learning courses and management practices of universities and technical colleges	Develop and publish guidebooks and toolbox websites on sustainability in technical and higher education Development of best practice learning support materials Develop ICT e-learning	Develop and enhance guidebooks and toolbox websites on environment and development in technical and higher education	No. of Reports and publications	Institutions of higher learning, research institutions, NCDC, KIE	5 years		Government & Donors

Networking and Partnerships and Regional Centres of Expertise	Promote stronger public private sector business partnerships to enhance the practice of EESD	Develop partnerships with local, regional and international organizations such as the UNESCO& UNEP Support and encourage twining programmes, bilateral cooperation, and institutional partnerships Facilitate sharing of best practices, success and innovation Collaborate with relevant institutions to integrate ESD perspectives in Vocational and technical education	Business-university partnerships Regional Networks and Centres of expertise for EESD	No. of MoUs Types of partnerships	Institutions of higher learning, government, research institutions, CSOs, private sector, National EESD steering committee			Government & Donors
Research and Innovation	Integrate sustainable development into courses and management practices of universities and technical colleges	Review national policies for the integration of sustainable development into courses and management practices of universities and technical colleges	Change in Curriculum and teaching practice	Reports Course outlines	Institutions of higher learning, government, research institutions, CSOs, private sector, National ESD steering committee			Government & Donors
Monitoring and Evaluation	Evaluate the impact of EESD in higher education	Develop monitoring and evaluation tools for EESD			Institutions of higher learning , National ESD steering committee			Government & Donors

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