

**NILE TRANSBOUNDARY ENVIRONMENTAL ACTION PROJECT
ENVIRONMENTAL EDUCATION AND AWARENESS PROGRAM**

**Initial Country Environmental Education and
Awareness Review**

Country: BURUNDI

By

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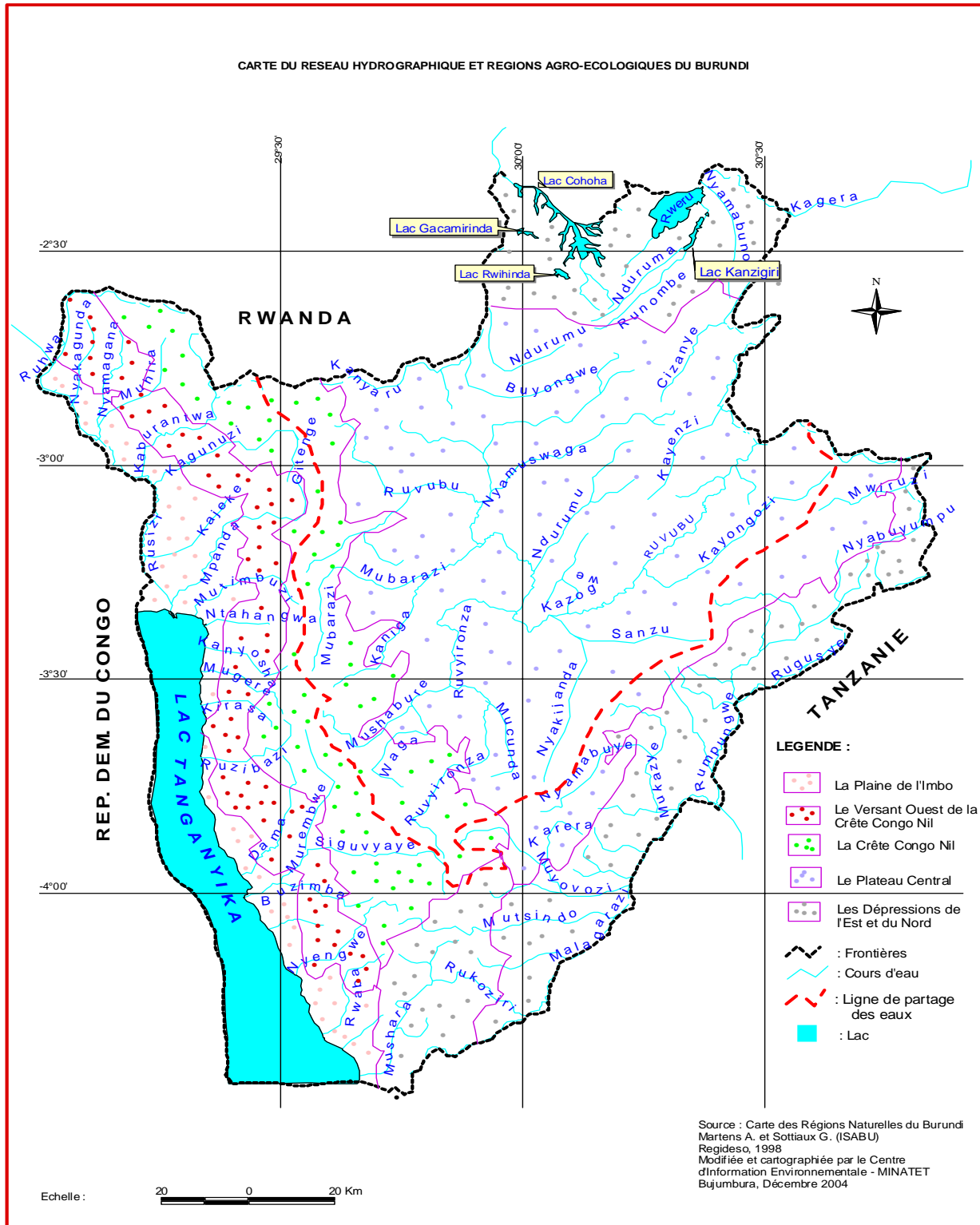


Fig. 1. Map of geographical regions of Burundi and its hydrological network

ii. List of abbreviations

CARE	: Cooperative Assistance for Relief Everywhere
COPEDE	: Conseil pour l'Éducation et le Développement
CRS	: Catholic Relief Services
EE&A	: Environmental Education & Awareness
FACAGRO	: Faculté d'Agronomie
FAO	: Food and Agriculture Organization
FM	: Frequency Modulation (radio)
GDP	: Gross Domestic Production
GOB	: Government of Burundi
IEAP	: Institut d'Études et d'Appuis à l'Autopromotion
IGEBU	: Institut Géographique du Burundi
INADES	: Institut National de Développement Économique et Social
INECN	: Institut National de l'Environnement et la Conservation de la Nature
IRAZ	: Institut de Recherche Agronomique et Zootechnique
ISABU	: Institut des Sciences Agronomiques du Burundi
ISTEBU	: Institut des Statistiques du Burundi
MINATE	: Ministry of Land Management, Environment and Tourism
NGO	: Non Governmental Organization
NPC	: National Project Coordinator
NPEEE	: National Project for Excellence in Environmental Education
NTEAP	: Nile Transboundary Environmental Action Project
ODEB	: Organisation pour la Défense de l'Environnement au Burundi
OMS	: Organisation Mondiale de la Santé (World Health Organization)
PCAC	: Programme Cadre d'Appui aux Communautés
REIEPGL	: Réseau d'Évaluations d'Impacts Environnementaux dans les Pays des Grands-Lacs
RJEB	: Réseau des Journalistes Environnementalistes du Burundi
RPA	: Radio Publique Africaine
RTNB	: Radio Télévision Nationale du Burundi
UNDP	: United Nations Development Program
UNESCO	: Organisation des Nations Unies pour l'Éducation, la Science et la Culture
UNICEF	: United Nations Children's Fund
USAID	: United States Agency for International Development

Executive summary

Burundi, a small landlocked country covering 27,834 square kilometers is a former Belgian colony which won its independence in 1962. To the north, it borders Rwanda which, too was a former colony of Belgium. Burundi and Rwanda were administratively linked and known collectively as Ruanda-Urundi. The two countries are affiliated culturally; they have almost the same size, geography, ethnic composition and much of the predominant livelihoods. They have high human densities and are both rural nations of peasant farmers (over 90% of the population are agriculturists). As a result, land for cultivation is a constant issue and a major obstacle to effective implementation of environmental policies.

Burundi has a temperate climate and an annual rainfall which is adequate for three growing seasons. There are four natural ecological regions in Burundi: the Imbo, the Congo-Nile Massif or Mugamba, the central plateau, and the Kumoso and Bweru Depressions. There are in addition, ten geographic subdivisions. Burundi belongs at two major basins: the basin of the Congo River and the Nile River basin. Waters on the west of the Congo-Nile crest go in the Lake Tanganika and those in the east run into the Lake Victoria and consequently in the Nile River. This is the reason why the southern source of the Nile is in Burundi. Given its rapid population growth, the continuing crisis and its limited resources, Burundi is facing a number of serious environmental problems which need strong educational program to curb their detrimental effects.

Overexploitation of land, smaller farms (less than half a hectare), and fewer fallow periods have led to severe land degradation. Loss of soil fertility, soil erosion, and silting of rivers are the most critical environmental issues. Soil erosion is a chronic problem throughout the country. During the past 10 years deforestation rates have risen dramatically. Some groups and individuals are using virtually all of the forested areas (including parks and reserves) as the main source for income generation and wood products for their various services.

Heavy population pressure and population movements have led to unsustainable land use practices. Marginal lands are increasingly being cultivated, and ecologically significant lands are vulnerable to encroachment. In addition, adverse policy incentives, lack of sound property rights and long term investments in the land, and weak regulatory and enforcement authority are root causes while resource use planning is hampered by poor monitoring and lack of environmental and natural resource related data.

To-day the preservation of the environment and natural resources management is at hand. The Government has taken a move towards the preservation of the environment. This move is based on clear articulation on both national policies and international conventions and laws. The National Strategy for the Environment (SNEB) revised in 1997 and the Plan of Action for the Environment which is an implementation tool for the SNEB and the Leading Plan for Water (1998) have been instrumental in dictating the environmental policy in Burundi. The policy framework is fully developed in this report under Policy framework at national level.

Although, the legal system exists in the area of environment, there is a need for another law that specifically states a code or a decree for an environmental education and awareness. This law is badly needed to lay down a process that aims to develop skills and knowledge in order to make well-informed choices in the exercise of the rights and responsibilities of all Burundians.

The institutional capacity is also weak. At the ministerial level, there is the Ministry of Land Management, Environment & Tourism which was created in 1988. This together with INECN which has the mandate for the management responsibility over all the remaining national forest reserves and national parks and the environmental education are the solely visible institutions with clear mission for EE &A. However, INECN is poorly equipped in both human and material resources that could enable it to coordinate EE& A activities.

In regards to formal EE programs in Burundi it is clear that there is none! This would rather mean in other words that most Burundians are environmentally illiterate. This was clearly stated and observed in the first workshop proceedings of October 2004.

For non formal EE programs, various actors have recently timidly started activities in this area, but they too, suffer from a lack of experience, lack of financial resources and lack of qualified personnel.

At the tertiary level, no EE &A is taught as a subject, or as module within programs. The only relevant subjects provided at the University of Burundi, the Institute Superieur of Agriculture of Gitega, or the University of Ngozi are crossed-related to the disciplines of environment.

Nonetheless, several projects are planned, others are undergoing implementation at the national or the regional levels. Most of them are being funded by the GEF. The Nile Transboundary Environmental Action Project (NTEAP) has a component of an EE &A in the Nile basin and is profiled by government officials to be a rescue for EE&A in Burundi.

Several opportunities do exist. These are:

- ◆ **Local institutions which are training in related environmental education.** The key strategy for these institutions is to become more focused and specific to incorporate guidelines and principles of environmental education.
- ◆ **The best opportunity is the NTEAP.** This has the advantage of leading towards establishing the development of balanced, scientifically accurate and comprehensive environmental education programs.
- ◆ **Local NGOs and international NGOs** with light structures can be effective at implementing activities with immediate impact at the local level.
- ◆ **Local media.** These can be the vehicle and engine for an environmental education program provided they have clear guidelines.
- ◆ **Existing schools** (primary, secondary and university levels). They can be both the nurseries and field for an strong and durable environmental education program.

Conclusion and recommendations

Even though EE&A is still new in Burundi, the GOB has shown from its policy decisions that it is committed to reverse the current tendency on continued depletion of natural resources. We have seen that policy makers in Burundi struggle on how to control human activities that are causing environmental problems such as deforestation, land degradation, erosion, etc., at the same time optimize communities and individual well-being while reducing the harmful effects on health of people and their environment.

We have seen also that much of the difficulties for the GOB and its partners and the society in general to implement appropriate decisions are being limited by the rapid population growth, the civil war, the lack of sufficient financial and qualified human resources and a lack of instruments to evaluate the effects associated with such destructive human processes of the environment.

Of paramount importance in policy decisions in regard to EE&A in Burundi today, is the lack of public's understanding of what it costs either for the country or for individuals in terms of severe environmental degradation and resource depletion and pollution. So, which ever solution it takes to curb the destruction of the environment is first of all to inform correctly the public on all the dangers with environmental problems. Consequently, there is no substitute for a strong, committed environmental education program. Hence, there is an urgent need to train educators in environmental education who will in return prepare guidelines for training the public and particularly students in all levels of education (primary, secondary and university). Key policies are to be prepared for law enforcement in the area of EE. To obtain all this the following recommendations are formulated:

- 1) **Policy and Institutional capacity.** The GOB with the support of NTEAP needs to establish principles and guidelines for the development of a balanced, scientifically adapted environmental education program in Burundi. The ministry of Land Management, Environment and Tourism should prepare a law which specifically articulates the political, economic and cultural voices of an EE. The same ministry needs to take a lead role in promoting EE &A throughout the country by involving all stakeholders in more collaborative and supportive management.
- 2) **Formal EE programs.** For the formal education, the ministry of education in collaboration with the ministry of environment should work together in the development of environmental education programs to be incorporated in the curricula of education programs of the country. At the primary level, secondary level or university level, each one should have a specific program developed for this matter.
- 3) **Non formal EE programs.** Local NGOs should be financially supported to become effective implementing agencies of EE&A at the local level. Local media as well need training in EE&A in order to broadcast accurate information that is well targeted. They are first the ones to be literally trained in EE &A before they can mainstream it to the rest of the public.

- 4) **Key players and the general public.** A program targeting the development of a series of educators resources in quality environmental education is urgently needed in Burundi for educators, professionals, students and or other non formal learners.

- 5) **Planning is the prerequisite for any long term strategy.** EE &A should be taken into consideration in all major planning processes with active participation of all stakeholders from initial definition of the problem and situation analysis through achieving goals or maintaining values for better health, safety and welfare most the time and for most people living in Burundi.

1. Introduction

1.1. Purpose of this study

The purpose of this review has to following objectives:

- ◆ to determine the state of both formal and informal Environmental Education and Awareness (EE&A) activities in Burundi;
- ◆ to determine the policy and institutional frameworks at national level and transboundary activities within the Nile basin;
- ◆ to determine the state of EE&A within all levels of learning institutions especially secondary schools;
- ◆ to assess the number of tertiary institutions offering EE either as a course or a module;
- ◆ to identify active practioners and or products (film, books, radio programs, campaigns, brochures, posters, etc.) within the basin on public awareness and environmental education;
- ◆ to identify activity gaps and suggest opportunities within the basin in each country;
- ◆ to suggest main SMART indicators for measuring progress.

To that end, a consultant conducted this assessment.

1.2. Methodology and organization of this report

This study benefited from a participatory approach which used various techniques and tools to gather meaningful information. Amongst others, the consultant used documentation from existing documents and web search reviews; he also used semi structured interviews and focus group discussion together with critical field observations directed to various socio-professional and diverse participants: government officials, NGO workers, students, private individuals, civil workers, women, and people who preferred to talk about their organizations. All of them provided extensive information by responding to numerous questions prepared for the purpose of this study. Their comments and viewpoints were crossly analyzed together with information from the documentation review and packed into this report.

This report has eleven parts:

- ◆ An executive summary
- ◆ Country background,
- ◆ Policy and institutional framework,
- ◆ Formal EE programs,
- ◆ Non formal EE programs,
- ◆ EE & A at tertiary institutions,
- ◆ Recent projects & programs and planned environmental education and outreach program within the basin,
- ◆ List of opportunities and constraints
- ◆ Summary of lessons learned around EE and A
- ◆ Main indicators and their measurement
- ◆ Conclusions and recommendations

2. Country background

Burundi's location, geography and climate

1. Burundi is a small landlocked country of 27,834 square kilometers and 7.2 million people in the heart of south central Africa. It borders Rwanda to the north, RDC to the west, and Tanzania to the south and east. National borders fall between 2°45' and 4°25' degrees south latitude, and between 28°50' and 30° 53'30" east longitude (Atlas du Burundi).
2. Burundi is temperate over most of its area due to its elevation. The annual average temperature varies between 15°C and 23° C with a high influence of altitude.
3. Rainfall is characterized by two seasons : dry and wet seasons having each a short and a long one. The long wet season occurs between February and April and it is followed by the long dry season which occurs in May and goes through August. Recently, because of an advanced progression of drought, one assists at climatic changes that are characterized by a dry season often much longer than usual and a quick stop of precipitation. The short wet season occurs usually in September through December and it is immediately followed by a short dry season from December through February. The rainfall generally is adequate for three growing seasons: season A (from September to January), season B (from February to May) and season C (from June to August).
4. The relief of Burundi is marked by an altitude which varies between 774 m, the level of Lake Tanganyika and 2670 m, the pick of Mount Heha. Differences in altitude allow for the country various landscapes with a thousand of hills which form the central plateaus of the country.
5. There are four natural ecological regions in Burundi: the Imbo, the Congo-Nile Massif or Mugamba, the central plateau, and the Kumoso and Bweru Depressions. There are in addition, ten geographic subdivisions as shown in Figure 1.
6. Burundi belongs at two major basins: the basin of the Congo River and the Nile River basin. Waters on the west of the Congo-Nile crest go into the Lake Tanganika and those in the east run into the Lake Victoria and consequently in the Nile River as also shown on Figure 1. This is the reason why the southern source of the Nile is in Burundi.

Burundi's history, economy, politics and social situation

7. Burundi is a former Belgian colony that gained its independence in 1962. For most of the period following World War I (1916) up until independence, Burundi and Rwanda were linked administratively and known collectively as Ruanda-Urundi.

8. Political power struggles have led into ethnic cleavages which assumed violent and tragic proportions particularly during the years following independence in Burundi (1965,1972,1988,1993). In 1966 a military coup officially ended Burundi's period as a monarchy and proclaimed Burundi as a Republic.
9. Burundi was traditionally self-sufficient in food production, but the civil crisis (which erupted in October 1993) disrupted production and caused looting and destruction of household goods and livestock. Farmers became deprived of their most important income-generating potential (Tschikuku et al. 1996. UNDP.1996).
10. According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), the war pushed in exile 839,000 refugees into neighboring countries, mainly Tanzania, and displaced 388,000 people in different parts of Burundi. The resettlement of returning and displaced people has started and is still going on.

- ◆ Burundi has some of the worst health indicators in the world and continue to register increasing infant and maternal mortality rates.
- ◆ In 2000, severe malnutrition, epidemic levels of malaria and measles and a rise in cholera and bacillary dysentery hit the country.
- ◆ Under-five chronic malnutrition rates rose from 48 per cent in 1987 to 56 per cent in 2000.
- ◆ The number of cases of HIV/AIDS continues to rise dramatically, particularly in rural areas. An estimated 20% of the country's urban population and 6% of the rural population are HIV positive. Infection rates in girls aged 15 to 19 are four times greater than boys of the same age. There are an estimated 230.000 children orphaned by HIV/AIDS in the country. (UNICEF. 2003).

Burundi's key environmental issues

11. The war left a very chaotic social, political, and economic situation in addition to having a heavy toll on Burundi's people and causing many casualties. The conflict exacerbated the natural resources management challenge, slashing investment in the land and increasing deforestation as a result of extended cultivation in forested areas and over exploitation of wood products.
12. Agricultural output declined sharply after the start of the crisis, with 1997 production leveling 21 percent lower than the average volume for 1989-93 and agricultural per capita GDP down 33 percent. Around 90 percent of Burundi's population rely on agriculture for their livelihood, and it accounts for 50 percent of GDP and more than 80 percent of export earnings. Moreover, agricultural production is subsistence-oriented, except for such cash crops as coffee, tea, rice, sugar, and cotton that target export markets (PRASAB- PAD).
13. Burundi is characterized by rural dispersed settlement patterns. Land fragmentation has not been compensated for by enough increases in agricultural productivity. Adverse incentives for

cash crop production are an important structural problem. Production is mainly done with hand-held tools and basic practices.

14. Land and wetland degradation are partly caused by the rapid population growth together with limited natural-resource base, low government investment in the smallholder sector, and an economy largely limited to agricultural employment. These led to the cultivation of marginal lands.
15. Overexploitation of land, smaller farms (less than half a hectare), and fewer fallow periods have led to severe land degradation. Loss of soil fertility, soil erosion, and silting of rivers are the most critical environmental issues. Soil erosion is a chronic problem throughout the country. Deforestation and soil erosion can lead to increased sedimentation and greater flood risk downstream, while sediments also accumulate in wetlands and reservoirs. On the hill side, dust blowing from degraded lands increases nutrients levels in lake waters, encouraging algal growth. Water hyacinth and other invasive aquatic weeds are spreading through many waterways in Burundi. Land degradation contributes to declining agricultural productivity and threatens other living ecosystems as well. Much of the border of Burundi lies within marshes and swamps that drain into Lake Tanganyika or into the Congo and Nile watersheds (Ibidem).
16. The Mimirwa zone (geographic subdivision) has been hardest hit, with annual soil loss as high as 100 tons per hectare. Soil erosion and siltation of the Nile and Congo basin watersheds and Lake Tanganyika have increased due to soil erosion and thereby threatening biodiversity (Ibidem).
17. Heavy population pressure and population movements have led to unsustainable land use practices. Marginal lands are increasingly being cultivated, and ecologically significant lands are vulnerable to encroachment. In addition, adverse policy incentives, lack of sound property rights and long term investments in the land, and weak regulatory and enforcement authority are root causes while resource use planning is hampered by poor monitoring and lack of environmental and natural resource related data.
18. In the northeast, dry spells are becoming a growing problem in a region where the soil is poorly suited for agriculture. Farmers are less adaptive to climatic variations, aggravating the poverty alleviation challenge. Fertilizer use is extremely low and plot sizes are small. The country has reached the limit of traditional land cultivation and has little economic diversification in the rural sector.
19. During the past 10 years deforestation rates have risen dramatically. Some groups and individuals are using virtually all of the forested areas (including parks and reserves) as the main source for income generation and wood products for their various services. The FAO's annual report on global deforestation in 2003 shows Burundi's annual deforestation rate listed at 9%.

Some of this is occurring within the plantations created during the 70s and 80s years ago (some of which are economically mature), but most is in open access woodland forests in the eastern part of the country and in protected areas.

20. Although the INECN exists, it is able to do little in regard to its original mandate of natural resources management. For some stakeholders the blame for illegal logging and other destructive activities is placed on field agents and local officials working together (USAID/Chemonics International. 2003). Reportedly, the Kibira and Ruvubu National Parks have suffered from deforestation and severe degradation, while Bururi, Rumonge and Kigwena Forest Reserves are being degraded. At this rate of deforestation, Burundi will lose all its remaining natural forests in less than a decade as well as its hydropower for its major cities and other services (Ibidem).

A. Current Situation

21. In Burundi, Environmental Education and Awareness (EE&A) started timidly in the 90's. However, its necessity has been recognized internationally through various gatherings such as the Conference of Stockholm (Sweden) in 1972, the Conference of Tbilissi (ex USSR) in 1977, the Summit of Rio de Janeiro (Brazil) in 1992 and the Conference of Cairo (Egypt) in 1995. Despite this awakening process, Burundi continues to threaten its own environment.
22. To-day the preservation of the environment and natural resources management is at hand. The Government has taken a move towards the preservation of the environment. This move is based on clear articulation on both national policies and international conventions and laws. Actions are being undertaken as follows:

- ◆ The creation of INECN in 1982 was an excellent move towards the protection and preservation of the environment;
- ◆ The creation of the ministry of the Environment in 1988 was a reinforcement towards the protection of the environment in Burundi;
- ◆ The conventions of the United Nations on Desertification and Climatic Changes were ratified in 1997 and the GOB is committed to put them into application.
- ◆ A code of Environment, the legal framework for the National Environmental Strategy for Burundi was approved by the GOB adopted by the Parliament in 2000.
- ◆ A national commission for the environment was put in place under the decree n°100/091 of August 28, 2001.
- ◆ An Environmental Information Center was created in 2000 at the Ministry of Land Management and Environment & Tourism.
- ◆ A Geographic Information System was conceived for a long term planning with elaboration of maps showing soil aptitudes, soil degradation, slopes and soil cultivation.

- ◆ Burundi coordinates the regional Project for the Biodiversity of Lake Tanganika which includes riparian countries of the Lake (Burundi, RDCongo, Tanzania, and Zambia). Burundi is also a member of the Conference of Dense & Humid Forest Ecosystems of central Africa.
- ◆ Actions on soil conservation and protection have been undertaken. A national program for erosion control, watershed management, mapping of arable lands, and the revision of the “Code Foncier” or Land code in order to enforce the legal base for sustainable uses of soils. However all these efforts still need clear legislation and clarification on the rights and responsibilities of users and stakeholders.
- ◆ A national inventory of wetlands and their classification has been achieved.
- ◆ A program of reforestation and tree planting is underway to curb the effects of deforestation and desertification at the same time conserve the remaining natural forests.
- ◆ Actions are also being developed in water management and air pollution. (UNDP. 2003).

23. Within the ministry of Environment and Land Management and Tourism together with INECN several activities in EE&A have been undertaken. A conceptual document for an EE&A in Burundi was prepared by INECN and several bulletins “info-environment” were equally produced by INECN. Two weekly broadcast on environmental protection are again diffused on the national radio. With financial support by the FAO, the ministry for the environment and land management has edited an evaluation document for an environmental education in primary schools.

24. Other actions are conducted around the national parks by the “Park for Peace” to protect biological diversity of protected areas. Each year, the Forest Department launches a “Tree Day” on which several educational messages on environment and environmental protection are head.

25. Despite all mentioned efforts, the implementation of relevant objectives is hampered by a lack of financial resources, insufficient institutional capacity, poor planning, lack of coordination, insufficient data, lack or poor policy making and a lack of equipment. This affects equally EE&A perhaps because of lack of qualified personnel and appropriate materials within the institutions which have in charge EE&A.

B. Policy and Institutional framework

26. The environmental policy in Burundi as was reviewed above has the following major objectives. These are dictated from the National Strategy for the Environment (SNEB) revised in 1997 and the Plan of Action for the Environment which is an implementation tool for the SNEB and the Leading Plan for Water (1998). This policy intends the following:

- ✓ Reforestation/afforestation and development of the forest heritage;
- ✓ Reinforcement of the management for the existing resources;

- ✓ Promotion of techniques which add value on transformed wood;
- ✓ Putting in place a program of research;
- ✓ Evaluation of water needs and its availability for its better use;
- ✓ Assessment of risks for water pollution;
- ✓ Assessment of air quality in Burundi and inventory of forms of pollution;
- ✓ Reestablishment and maintenance of ecological balance;
- ✓ Safeguard of the genetic heritage and biodiversity;
- ✓ Control all forms of pollution and contribute to the increase of production.

Source: Sector Policy of the Ministry of Land Management, Environment and Tourism

27. The law regarding EE &A does not exist in the legislation in Burundi per se! However, the new code of environment contains some articles on environmental education.

0.1. Code of environment

28. This is a major law regarding environment in Burundi. It is registered under the decree n°1/010 of June 30th 2000. However, very few people are aware of it. Its understanding - a knowledge of some of its fundamental principles, particularly article 5,6,7,8 &9, and also its basic concepts and definitions which are detailed in this code, in particular article 12 & 13 - should be the purpose and the necessity to reinforce this code on more specific undertakings by passing another law specific to EE&A.

0.2. Other environmental legislation

The legal framework in regard to environmental legislation in Burundi has the following laws:

- *Ancient texts prior to independence concerning fishing (1932,1937,1961), la hunting(1937), forest reserves (1934,1951,1954), dangerous establishments , unhealthy or incommode (1956) ;*
- *The decree 100/162 of December 6, 1979 on research and mining;*
- *The decree 1/6 of 3 mars 1980 concerning protected areas ;*
- *The decree 100/47 of March 3, 1982 for the creation of INCN (Institut National de la Conservation de la Nature), which become later INECN ;*
- *The Code on Public Health (1982) ;*
- *The law 1/6 of 25 May 1983 on Protection of National Cultural Heritage;*
- *The Law 1/02 of 25 March 1985 on Forest Code;*
- *The law 1/008 of September 1st 1986 on Soils code,*
- *The decree 1/41 of November 26, 1992 on Public Waters;*
- *The decree 100/241 of December 31, 1992 regulating used waters in urban milieu;*
- *The decree 1/003 of June 30, 1993 on Plant Protection;*

- *The ordinance 52/160 of November 16, 1995 regulating fishing in the lakes .*
- *The decree 1/010 of June 30, 2000 on the Code of the Environment of the Republic of Burundi.*

29. Looking into these laws one finds that some of these are well formulated others are not. For example:

Forest exploitation: The legislation on forest exploitation requires permits for cutting and for charcoal manufacture, but uncontrolled cutting continues.

Mining Policy: A mining and petroleum code under its terms, concession rights are granted for a period of 25 years, with two ten-year extensions possible. But this code does not incorporate environmental concerns.

Water Policy: Under this law, groundwater belongs to the owner of the land, except where such water is subject to legislation regarding mining or the protection of public drinking water. Surface waters are treated two ways: private appropriation of small pools or streams is recognized, while running water is publicly appropriated. Navigable waters are part of the public domain. Several items of this legislation protect water quality while water pollution is prohibited.

Land Policy: This law is one of the major environmental legislation in Burundi. It distinguishes domanial (national) lands and private (non domanial) lands. National lands belong to the public domain and they are inalienable. There are also those lands that belong to the State's public private domain, to the districts, public establishments and societies. On the other hand those lands which are not domanial are either registered or attributed to customary. However, due to land scarcity, farmers are invading wetlands and remaining forests, while this legislation and the land tenure laws actually encourage the drainage of marshes. Local stakeholders find these laws unclear and their prohibition to access natural resources inadequate and unjust.

30. Internationally, Burundi adheres on the following international laws:

- *The Paris convention (UNESCO) on the protection of world cultural and natural heritage in vigor in Burundi since August 19, 1982 ;*
- *The Washington convention on internatioanl trade of wild species fo fauna and flora (CITES),in vigor in Burundi since November 6, 1988 ;*
- *The Rio de Janeiro Convention of June 5, 1992, on biological diversity;*
- *The convention on desertification ;*
- *The convention on the protection of the ozone layer (Vienna Convention, of 22 March 1979) and the Montreal protocole (16 September 1987) ;*
- *The convention of United Nations on Climatic Changes (New York, May 9, 1992) ;*
- *The convention on transboundary control of dangerous wastes and their disposal (convention de Bâle, du 22 mars 1989) ;*
- *The convention on ban of importation dangerous wastes and their transboundary control in Africa (convention de Bamako, du 30 janvier 1991).*

In addition, Burundi envisages to ratify or to adhere at the following conventions :

- *Convention on conservation of migratory species from the wild fauna (convention de Bonn, du 23 juin 1979) ;*
- *Convention on conservation of wet zones with an international interest (convention de Ramsar, 1971).*

31. Of all these laws, it is clear that the legal system exists in the area of environment, but there is a need for another law that specifically states a code or a decree for an environmental education and awareness. This law is badly needed to lay down a process that aims to develop skills and knowledge in order to make well-informed choices in the exercise of the rights and responsibilities of all Burundians. (adapted from NPEE Guidelines for Excellence initiated by the North American Association for Environmental Education in 1993). In addition all the above laws need to be reinforced to be applied.

C. Institutional capacity

32. At the ministerial level, there is the Ministry of Land Management, Environment & Tourism which was created in 1988. Within this ministry there is also a department in charge of environment. At a parastatal level within this same ministry, there is INECN which has the mandate for the management responsibility over all the remaining national forest reserves and national parks and recently the environmental education. Within INECN, there is a department in charge of EE&A. However, INECN is poorly equipped in both human and material resources that could enable it to coordinate EE& A activities.

33. Both these institutions suffer from lack of financial resources and support from qualified human resources. They are not well structured with a clear definition of their management responsibilities and clear tasks to carry out. In addition, they lack appropriate training materials that can help them carry out adequate environmental education throughout the country (First national workshop proceedings. Bujumbura, October 2004).

34. The other key players in regard to environmental education in Burundi and or having a wealth of resources for documentation are the following:

- ◆ *The University of Burundi*
- ◆ *IRAZ*
- ◆ *INECN*
- ◆ *ISABU*
- ◆ *ISTEBU*
- ◆ *Department of Water, Fishing & Pisciculture*
- ◆ *Ministry of Agriculture & Animal Husbandry*

- ◆ *Ministry of Development planning and Research*
- ◆ *IGEBU*
- ◆ *UNDP*
- ◆ *FAO*
- ◆ *OMS, etc.*

35. All the above combined have a wealth of knowledge and resources (libraries) to build on for an environmental education and awareness. However, the public or the common person is unaware of the existing of these resources probably because there is a lack of communication and networking in this important area.

36. Other places relevant to the people of Bujumbura which facilitate the teaching, knowledge and provide proper language in the area of environmental education and awareness are the following:

- ◆ *Musee Vivant*
- ◆ *French Cultural Center*
- ◆ *Botanical garden of Bujumbura*

However, these too, are less frequented and a large proportion of the population of Bujumbura are unaware of the existing of these services.

D. Formal Environmental Education programs

37. There are no formal EE programs per se in Burundi! This would rather mean in other words that very many Burundians are environmentally illiterate. This was clearly stated and observed in the first workshop proceedings (1st workshop proceedings, Bujumbura.2004).

38. Environmental programs that exist have to deal in one way or the other with the problems of environment, **but no specific course on EE**. Nonetheless, opportunities for mainstreaming such activity do exist at the university level in the faculties of Agronomy, Biology, Geography, Rural engineering and Nutrition respectively from the University of Burundi, Institute Supérieur of Agriculture of Gitega and the University of Ngozi which train students in programs related to environment. These institutions deliver diplomas for engineers, biologists, etc..

39. **At secondary level, EE & A program does not exist. At the primary level, neither EE is mainstreamed in the formal curriculum.** What exists is called "*etude du milieu*" which embraces very much of the living milieu. Pupils at this level must pass through stages of learning in interdisciplinary integration: they move from an active and concrete observation of the milieu (environment) in order to adopt to the kids a positive attitude which will help them transform the milieu for the purpose of improving it. This stage is designed to children in first & second year of the primary schools. The second stage is designed for children in third and fourth year of the primary schools. At this level children learn how to analyze immediate phenomena of the milieu.

The third stage is designed for pupils in the fifth and sixth years of the primary schools. This level deepens analysis and relationships between phenomena distant to the child in space, time and spirit. In short, there is a spirit of progression in understanding the milieu.

40. There are, however, projects within the Ministry of Education which are intended to develop formal Environmental Education in primary and secondary schools. This may take time since the curricula are not yet prepared, teachers too, are not trained nor qualified to teach EE and training materials are not yet available.
41. Nonetheless, the « *Maison de Presse* » in collaboration with the University of Makerere, Uganda is sending Burundian journalists at this university to be trained in EE &A. From September 2002, about 50 journalists have been sent there. As a result, there is now an Association of journalists called “ Réseau des Journalistes Environnementalistes du Burundi (RJEB)” which is a bit laying down a foundation for the development of an environmentally literate citizenry capable of making well-informed choices.

E. Non formal Environmental Education programs

42. Various actors have an informal EE in their programs, but they have no experience in this area and there is no coordination of their activities at the national level. The following are those that officially deliver messages with a content of EE:
- ◆ At the Direction General of agricultural extension (vulgarization) within the ministry of Agriculture and Animal Husbandry they prepare themes for diffusion amongst the population and one of the theme is environmental awareness and protection.
 - ◆ National and private radios deliver messages that sensitize the public on the environment. These radios are RTNB, Bonesha, Isanganiro, RPA, School Radio Nderagakura, Renaissance FM, and Radio Culture.
 - ◆ One journal (comes monthly) called “ Notre terre” or “our earth” publishes some awareness to the preservation of the environment.
 - ◆ The other journals such as “Le Renouveau” or “Nouvelle Vision” have in their publications sporadic themes on environment.
 - ◆ NGOs (local and international) have in their programs, projects or activities which have to do with sensitization and education to the management of natural resources: these among others are INADES, CARE international, CRS, World Vision, etc..

F. Environmental Education and Awareness at tertiary institutions

43. As stated above universities in Burundi **do not teach environmental education as a subject nor as a module**. But several subjects are built in across their curricula some components of EE as follows:

- ◆ At the University of Burundi, the Faculty of Agronomy, the Department of Biology and Geography, various courses incorporate some environmental education principles that explore environmental problems and their solutions. Just to name a few, they have the Forestry Introduction and Management Practices, the Soil Conservation and Management, Fertilization, Entomology, Geology, Landscapes, Organic Chemistry, etc.
- ◆ At the Institute Superieur of Agriculture (ISA) in Gitega, they have strong background in Forestry and Rural engineering well developed in their cursus.
- ◆ At the University of Ngozi, a new attention on the environment is promoting in their cursus, courses that lay groundwork for analyzing environmental problems, resolving conflicts and preventing new problems from arising. These are: Agroecology, Fertilization, Phytotechnie, Plant Improvement, Agriculture hydraulics, and Ecology of Landscapes.

G. Recent projects & programs and planned environmental education and outreach program within the basin

44. At the country level, several projects are undergoing implementation. Even though they are not specific to environmental education component, but they do deal with elements of the environment. These are:

Projects	Planned or continuing	Modes of delivery or activities	Institutional set-up	Sources of funding	Comments
National Biodiversity Strategy, Action Plan and Country Report	Continuing	Enabling	UNDP	GEF	Approved
Participation in the clearing House Mechanism of CBD	Continuing	Enabling	UNDP	GEF	Approved
Elaboration of the Second National Communication on Biodiversity of Burundi for the conference of the Parties	Continuing	Enabling	UNDP	GEF	Approved

Capacity Needs Assessment for Implementation of the BSAP and CHM Support	Continuing	Enabling	UNDP	GEF	Approved
Preparation of First National Communication to UNFCCC	Continuing	Enabling	UNDP	GEF	Approved
Climate Change Enabling Activity	Continuing	Enabling	UNDP	GEF	Approved
Preparation du Plan d'Action National d'Adaptation du Burundi aux changements climatiques	Continuing	Enabling	UNDP	GEF	Approved
Agricultural Rehabilitation and Sustainable Land Management Project	Continuing	Enabling	IBRD	GEF	Endorsed
National Capacity Needs Assessment for Global Environment Management	Continuing	Enabling	UNDP	GEF	Approved
Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants	Continuing	Enabling	UNIDO	GEF	Approved

45. At the regional level, the following projects are undergoing implementation or have been approved. These are:

Projects	Planned or continuing	Modes of delivery or activities	Institutional set-up	Sources of funding	Comments
Nile Transboundary Environmental Action Project	Continuing	Full size	IBRD	GEF	Endorsed
Development of a	Biodiversity	Full size	UNDP	GEF	-

Regional Strategic Action Program (SAP) for the Environmental and Biodiversity Resources of the Ecosystems of the Congo Basin					
Developing Detailed Regional and National Project Proposals and Financial Mechanism to Implement the Lake Tanganyika Strategic Action Programme and the Convention	Continuing	Full size	UNDP	GEF	-
Supporting Capacity Building for the Elaboration of National reports and Country Profiles by African Parties to the UNCCD.	Continuing	Medium size	IBRD	GEF	Approved

46. Some international NGOs like CARE international, Catholic Relief Services (CRS), World Vision, Africare and Tea Fund, all in collaboration with UNDP/PCAC are implementing project activities in watershed management, livelihoods improvement and the fight against poverty in the northern provinces of Burundi (Kirundo, Muyinga, Ngozi) near the borders of Rwanda and Tanzania.

47. Other local NGOs such as ODEB, COPED, REIEPGL, IEAP, BIRATURABA, RJEJ, etc.. have in their plans of action components on environment and environmental evaluation & education. These NGOs have the advantage of being young with light structures and they act locally. Unfortunately, they face the challenge of being less accepted (despite the long experience of their founding members) by international donors due to inexperience in financial management. Note that these NGOs are built on the spirit of improving their environment and should therefore be supported and gain their experience by doing and learning.

H. Opportunities and constraints for transboundary environmental education and outreach program

0.1. Opportunities

48. As observed above, there are quite opportunities in Burundi for an EE&A taking off for the benefit of all people living in this country. Some of these are the following:

- ◆ ***Local institutions which are training in related environmental education.*** The key strategy for these institutions is to become more focused and specific to incorporate guidelines and principles of environmental education.
- ◆ ***The best opportunity is the NTEAP.*** This has the advantage of leading towards establishing the development of balanced, scientifically accurate and comprehensive environmental education programs.
- ◆ ***Local NGOs and international NGOs*** with light structures can be effective at implementing activities with immediate impact at the local level.
- ◆ ***Local media.*** These can be the vehicle and engine for an environmental education program provided they have clear guidelines.
- ◆ ***Existing schools*** (primary, secondary and university levels). They can be both the nurseries and field for an strong and durable environmental education program.

0.2. Constraints

49. Major constraints combine capacity and resources in the following:

- ◆ **Lack of trained educators in environmental education.** However, with the existing capacity, one can train these educator resources very rapidly and become well trained professionals in quality environmental education.
- ◆ **Lack of quality training materials in environmental education and awareness.**
- ◆ **Lack of financial support for actors (young NGOs or clubs, etc.) involved in environmental education.**
- ◆ **Problems of law reinforcement due to continuing civil war.**
- ◆ **Problems or lack of learner guidelines. A learner can be any citizen.**

I. Summary of lessons learned around EE and A project experiences at national and transboundary level

50. Given that EE &A in Burundi has not yet produced results for sensitive impacts due mostly to constraints above, this review will only mark the various intentions/visions produced by the participants in this review. These are the following:

- ◆ The war in Burundi has provoked more environmental problems to the extent that now Burundi is losing its forest resources at a very high and rapid rate. An awareness together with some law reinforcement is needed now to curb down this tendency.
- ◆ A system of decentralized authority is needed in order to obtain environmental protection with full participation of stakeholders.
- ◆ A sustainable development will not be achieved unless the country invests in sustainable livelihoods with Environmental Education and Awareness as a strategy to reach such a development.

J. Setting of indicators and how the indicators can be measured

51. This review shows a long way to go for an Environmental Education and Awareness taking off for environmentally literate communities who are able to compete in our regional economy. So, skills, knowledge, attitudes are the key indicators in order to make well-informed choices and exercise the rights and responsibilities as members of the country who are interdependent with other communities sharing the same resources at the local level, transboundary level or at the regional level.

Activities	Indicators	Measures		Responsible
		Type	Source of Verification	
Conduct an EE&A planning for a suitable framework that will govern EE&A in Burundi	Alternative actions are identified for the short and long term effects by 2005	Objectives Alternatives Environmental setting ¹	Reports Participants in the planning stage	NPC + INECN+MINATE
Prepare an EE &A policy to be submitted to the Parliament	A law on EE&A is approved and publicized by the end of 2005	Wide spectrum of interests	Official Bulletin	MINATE in collaboration with MIN. EDUCATION
Conduct a base line survey in	At least 10 Schools in secondary level are	School infrastructures	Physical observation plus	NPC + INECN Department of EE

¹ This includes not only the specific action, but its relationship to social, economical, political, and biophysical systems.

schools to identify pilot schools with EE&A programs	identified and have started EE&A by end of 2005	and qualified & willing teachers	report of the survey	
Design a multiyear Program in EE&A	A number of teachers and students are undergoing continuing training in EE&A for each year	Number of teachers trained each year Number of schools training in EE&A and an estimate of students attending these courses	Guiding materials Training materials Websites networking in EE&A in country Reports by NPC	NPC INECN MINATE Min. Education
Conduct a landscape assessment nationwide	A land use inventory (natural, social and man-made structures) produced by 2006 leads to policy decisions in EE &A	Classification system; Land use and land cover classification system	Reports produced by experts	MINATE & MINAGRI
Design a Plan of Action in EE &A for Burundi	Each year a plan of action in EE&A is approved for involved institutions	INECN and its partners have each a plan of action	Office documents Annual planning	MINATE INECN NPC
Develop a monitoring and evaluation plan in EE&A	A plan of monitoring and Evaluation in EE&A exists at INECN by the end of 2007	The Plan	Annual planning and budgeting at INECN	NPC INECN MINATE
Train staff, local NGOs and clubs involved in EE&A	Number of participants trained as reference from their organizations by the years 2005,2006,2007,2008	Individuals participating and their functions	Lists of participants trained and their respective organizations; Costs reports on training Other reports on training and budgeting	NPC INECN MINATE

K. Conclusion and recommendations

Even though EE&A is still new in Burundi, the GOB has shown from its policy decisions that it is committed to reverse the current tendency on continued depletion of natural resources. We have seen that policy makers in Burundi struggle on how to control human activities that are causing environmental problems such as deforestation, land degradation, erosion, etc., at the same time optimize communities and individual well-being while reducing the harmful effects on health of people and their environment.

We have seen also that much of the difficulties for the GOB and its partners and the society in general in Burundi to implement appropriate decisions are being limited by the rapid population growth, the civil war, the lack of sufficient financial and qualified human resources and a lack of instruments to evaluate the effects associated with such destructive human processes of the environment.

Of paramount importance in policy decisions in regard to EE&A in Burundi today, is the lack of public's understanding of what it costs either for the country or for individuals in terms of severe environmental degradation and resource depletion and pollution. So, which ever solution it takes to curb the destruction of the environment is to inform correctly the public on all the dangers with environmental problems. Consequently, there is no substitute for a strong, committed environmental education program. Hence, there is an urgent need to train educators in environmental education who will in return prepare guidelines for training the public and particularly students in all levels of education (primary, secondary and university). Key policies are to be prepared for law enforcement in the area of EE. To obtain all this the following recommendations are formulated:

- 6) **Policy and Institutional capacity.** The GOB with the support of NTEAP needs to establish principles and guidelines for the development of a balanced, scientifically adapted environmental education program in Burundi. The ministry of Land Management, Environment and Tourism should prepare a law which specifically articulates the political, economic and cultural voices of an EE. The same ministry needs to take a lead role in promoting EE &A throughout the country by involving all stakeholders in more collaborative and supportive management.
- 7) **Formal EE programs.** For the formal education, the ministry of education in collaboration with the ministry of environment should work together in the development of environmental education programs to be incorporated in the curricula of education programs of the country. At the primary level, secondary level or university level, each one should have a specific program developed for this matter.
- 8) **Non formal EE programs.** Local NGOs should be financially supported to become effective implementing agencies of EE&A at the local level. Local media as well need training in EE&A in

order to broadcast accurate information that is well targeted. They are first the ones to be literally trained in EE &A before they can mainstream it to the rest of the public.

- 9) **Key players and the general public.** A program targeting the development of a series of educators resources in quality environmental education is urgently needed in Burundi for educators, professionals, students and or other non formal learners.

 - 10) **Planning is the prerequisite for any long term strategy.** EE &A should be taken into consideration in all major planning processes with active participation of all stakeholders from initial definition of the problem and situation analysis through achieving goals or maintaining values for better health, safety and welfare most the time and for most people living in Burundi.
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Annexes

L. Terms of reference

NTEAP

Environmental Education and Awareness Program

Initial Country Environmental Education and Awareness Reviews

Terms of Reference

1. Project background

The Nile Transboundary Environmental Action Project is one of the eight projects under the Nile Basin Initiative Shared Vision Programs (SVP). The main objective of the project is to provide a strategic environmental framework for the management of the transboundary waters and environment challenges in the Nile river basin. Specifically, the project will:

- Improve the understanding of the relationship of water resources development and environment;
- Provide forum to discuss development paths for the Nile with a wide range of stakeholders;
- Enhance basin-wide cooperation and environmental awareness and
- Enhance environmental management capacities of the basin-wide institutions and the NBI.

The project has six components (i) Institutional Strengthening to Facilitate Regional Cooperation (ii) Community-Level Land, Forest and Water Conservation (iii) Environmental Education & Awareness (iv) Wetlands and Biodiversity Conservation (v) Water Quality Monitoring and (vi) Monitoring & Evaluation.

The Environmental Education and awareness component within the Nile Transboundary Environmental Action Project will focus on creating awareness on the River Nile environmental threats, while stimulating behavioural change at three levels; the general public, secondary schools and tertiary institutions of learning.

The programs objectives will be achieved through enhancing awareness on the nature of environmental inter-relatedness within the Nile basin and effects on communities. Focus will be put on developing or strengthening transboundary partnerships and networks of environmental education and awareness practitioners. This will be achieved through; building practitioners' capacities, introduction and building transboundary cooperation and demonstration (through pilot activities) the feasibility of developing and delivering a variety of environmental education and awareness programs at basin-wide level.

In order to design an environmental education and awareness component, it is important to begin with a sense of the history of the environmental issues, knowledge of the key institutions and individuals, and an idea of which options are possible. Successful and sustainable EE&A initiatives are usually built on a combination of all stakeholders, especially project recipients and beneficiaries ideas.

In that vein, the NTEAP intends to recruit a national consultant to obtain a rapid assessment of a country's EE&A – quick, clear snapshot of the existing state of environmental education and awareness.

2. Description of the services to be rendered (Objectives of the assessment)

The main objective of the reviews is to come up with a clear snapshot of the existing state of environmental education and awareness within the Nile Basin for each riparian country. Specifically the review will:-

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

The proposed review will address the policy and institutional framework at the national level and projects and programs at the basin level. In countries with federal states like Ethiopia the study will cover the five states which are within the basin.

3. Consultants main tasks

The consultant will carry out the following tasks;

1. Conduct desk and website reviews starting with both Project (PIP, TEA, PAD) and Nile Basin documents and websites;
2. Develop a short checklist of questions to be administered in each sample group;
3. Information gathering using participatory methodologies;
4. Information analysis and report writing;

a) Information gathering

It is fundamental that a participatory approach be used for collection of meaningful information from various sources – exiting documents, in-depth interviews, focus group discussion or direct

observations. Time will be taken to do both desk and web search reviews. To ensure a more complete picture, the consultant will seek out representative comments and viewpoints at all levels of a given organization, as well as among stakeholders, beneficiaries and groups that will be affected. Emphasis will be put to elicit viewpoints and comments from both men and women. The draft report will be circulated to a broader focus group (National Environmental Education and public awareness working group) for further inputs.

b) Interview sample group

Given time and budget constraints, interviewing all groups will not be possible, however the consultant will ensure that a representative sample of people from each major category. Emphasis will be put in all categories of stakeholders and beneficiaries including but not limited to: -

- ❖ Government desk officers assigned to environmental education, participation or outreach programs specifically the Ministries of Environment, Education and Water Resources (at national, regional, or community –level);
- ❖ Institutional/project managers, supervisors and administrators of projects that are working or intending to work on environmental outreach , school modules within the basin;
- ❖ Influential leaders or opinion makers from the private sector, NGO community, CBOs, and religious organizations;
- ❖ School instructors, teachers, extensionists working with school clubs;
- ❖ Farmers and low-skilled workers;
- ❖ Representatives of environmental journalist at the national, regional , or local mass media (print, radio, and TV as appropriate);
- ❖ Community members, students, or well defined groups like women groups, youth groups, scout movements, etc.;
- ❖ Institutional /project beneficiaries, recipients, or constituents;
- ❖ Environmental, humanitarian and development NGOs within the basin;
- ❖ Bilateral and Multilateral donors working or planning EE&A activities including UNDP, WFP, CIDA, GTZ, SIDA
- ❖ International NGOs agencies like IUCN, WWF, AWF, etc
- ❖ In Rwanda and Ethiopia NELCU and ENTRO respectively to determine their future plans, needs and possible linkages on EE & awareness activities.

4. Coordination arrangements

The consultancy will be coordinated at two levels. At PMU, the EE&A lead specialist will coordinate the contractual obligation; the National Project Coordinator will coordinate the activities at the national level.

5. Reports and/or data to be submitted to PMU

The consultant will submit a checklist intended for information collection to the PMU for review. After the study the consultant will submit the draft reports to both the PMU the Nile secretariat and the NPC (to circulate to EE&A national working group members) for comments.

6. Time frame

With limited resources – notably financial and time, the assessment is expected to be completed between 10 -19 working days depending on the situation within each country (Table 1). This activity is planned for the month of October 2004 in all countries.

Table 1 *Suggested workplan for Initial survey*

#	Tasks	Approximate Max No. of days
1	Conduct desk and website reviews starting with both Project (PIP, TEA, PAD) and Nile Basin documents and websites	2.0
2	Develop a short checklist of questions to be administered in each sample group and send to NTEAP for review	2.0
3	Information gathering using participatory methodologies	10.0
4	Information analysis and report writing	2.0
5	Finalize report after the circulation for comments NTEAP, Nile-SEC, UNDP, WB	2.0
	Preparation and presentation of the final approved report to the 1 st National Working group workshop	1.0
		19 days

7. Standards

The initial review doubles as a baseline survey for EE&A status in each country. It is expected that the consultant will highlight a few SMART indicators to enable the program achieve M&E objectives.

8. Document and services from PMU

The PMU will provide the project documents (PIP, PAD, TEA) for use as reference materials. In addition the project and Nile secretariat websites are encouraged to visit.

9. Monitoring /progress control

Monitoring or tracking progress will be done at two levels. At the national level, the NPC will monitor daily progress. The PMU will from time to time consult with both the NPC and the consultant to monitor progress and/or difficulties encountered.

10. Expected main outputs

The main outputs from the assessments are;

- (i) *Country Status* –the current state (snapshot) of environmental education and awareness (both formal and informal, including institutional and policy framework) at national and within the basin in all riparian countries is determined;
- (ii) *Identification of key players* –key environmental education and outreach players current and planned within the basin will be identified, documenting their modes of delivery, institutional set-ups and sources of funding;
- (iii) *Opportunities* – opportunities and constraints for transboundary environmental education and awareness activities for the basin in each country will be identified.
- (iv) *Dissemination* – The report will be presented to the 1st National Environmental Education and Awareness working group workshop;
- (v) *Baseline* – The report will highlight a few SMART indicators for M&E, in addition to being used as a desk reports for the formulation of the main project M&E strategy. It will also form part of the regional status report on environmental education and awareness.

11. Reporting requirements

Contents

A detailed but reader friendly format, free of technical or academic jargon report is expected. The report will include recommendations and present them as a series of options for developing EE&A activities rather than prescriptions of what must be done. For easy of comparisons between countries and capturing the main project subcomponents, the following report format is suggested;

- ❖ Executive summary;
- ❖ Background;
- ❖ Policy and Institutional framework;
- ❖ Formal EE programs;
- ❖ Non Formal EE programs;
- ❖ EE and A at tertiary institutions;
- ❖ Recent projects & programs and planned environmental education and outreach program within the basin;
- ❖ A list of opportunities and constraints for Transboundary environmental education and outreach program;
- ❖ Summarize lessons learned around EE and A project experiences at national and transboundary level;
- ❖ Set of main indicators and how the indicators can be measured;
- ❖ Conclusions and recommendations.

Format

The report will be submitted in both hard and electronic copies. The electronic copy will be in Ms Word.

Distribution

The draft report will be reviewed by the PMU, steering committee member and development partners UNDP and the World Bank where appropriate.

12. Qualifications of the Consultant

The consultant will have:

- (i) At least 8 years experience with recognized expertise on environmental education and awareness;
- (ii) Advanced training, masters level degree or higher in related environmental, natural resource, social sciences or development field of study;
- (iii) Demonstrated skills on participatory methodologies on information gathering, analysis and presentation;
- (iv) Demonstrated writing skills, analytical and presentation and reporting skills.
- (v) A good working relationship with Government institutions and NGOs is an added advantage.

13. Remuneration

Remuneration will be based on UNDP national consultant rates. Transport and living expenses will be reimbursed on an approved work plan basis.

M. Population of Burundi

BURUNDI POPULATION IN 2003

Age Groups	Absolute numbers		Relative numbers			RM ²
	M	F	M	F	Total	
0-4	767505	750583	106,4	104,1	210,5	102,3
5-9	553916	564778	76,8	78,3	155,1	98,1
10-14	408678	415910	56,7	57,7	114,3	98,3
15-19	322478	332532	44,7	46,1	90,8	97,0
20-24	273476	306705	37,9	42,5	80,5	89,2
25-29	261576	285562	36,3	39,6	75,9	91,6
30-34	233484	248768	32,4	34,5	66,9	93,9
35-39	174123	179195	24,1	24,8	49,0	97,2
40-44	114279	129367	15,8	17,9	33,8	88,3
45-49	86644	101772	12,0	14,1	26,1	85,1
50-54	78085	100127	10,8	13,9	24,7	78,0
55-59	59325	66775	8,2	9,3	17,5	88,8
60-64	53140	70461	7,4	9,8	17,1	75,4
65-69	34561	40485	4,8	5,6	10,4	85,4
70-74	36084	44687	5,0	6,2	11,2	80,7
75-79	20965	22898	2,9	3,2	6,1	91,6
80+	37147	35283	5,2	4,9	10,0	105,3
Total	3515468	3695890	487,5	512,5	1000, 0	95,1
Together	7211358					

² RM=Ratio of men to women. Number of men to 100 women

N. Interview sample group

#	Sample group	No. and names of people interviewed	Comments
1	Government desk officers assigned to environmental education, participation or outreach programs specifically the Ministries of Environment, Education and Water Resources (at national, regional, or community-level)	1. A.Ndayizeye, NPC 2.A.Mbonerane, Minister of Environment through radio interview, La Renaissance (dec.04); 3.G.Hakizimana, Director of EE Department at INECN 4.Munama, Chief of forest reserve at INECN Rumonge	All of them state the necessity of an EE&A strongly supported in Burundi. They too, mention lack of financial support for institutions to tackle EE&A.
2	Institutional/project managers, supervisors and administrators of projects that are working or intending to work on environmental outreach, school modules within the basin	1.J.Nindorera, project manager for a watershed management in Ngozi with Care International 2.S.Ngendakuriyo, agent of ISABU Ngozi 3.G.Nyengayenge, administrator of Care Gitega	EE &A deserve high attention in Burundi. Unfortunately, it is not yet understood while it is meant to prevent various diseases and consequently promote a healthier country.
3	Influential leaders or opinion makers from the private sector, NGO community, CBOs, and religious organizations	1.Dr. I.Ndayizeye, former UNV and now member of IEAP 2.Emmanuel Nshimirimana, member of REIEPGL	They both recommend EE&A to be incorporated in the curricula in the school education in Burundi for more impact while they strongly blame the civil crisis for holding Burundians in the environmental illiteracy.
4	School instructors, teachers, extensionists working with school clubs; farmers and low skilled workers	-	-
5	Representatives of environmental journalist	-	For time constraints, I

	at the national, regional, or local mass media (print, radio, and TV as appropriate);		could not physically meet one, but found existing environmental journalists association
6	Community members, students, or well defined groups like women groups, youth groups, scout movements, etc	Focus Group discussion with skilled workers, students, 20 in total for each group	The lack of EE&A in Burundi has the consequences on land degradation such as deforestation, soil erosion, malaria attacks, and other diseases
7	Institutional/project beneficiaries, recipients, or constituents;	-	-
8	Environmental, humanitarian and development NGOs within the basin	INADES, CRS, World Vision, Care International, etc.	These have activities which tackle some environmental issues at local level, but may not be specialized in EE&A
9	Bilateral and Multilateral donors working or planning EE&A activities including UNDP, WFP, CIDA, GTZ, SIDA	UNDP through Ms.Françoise and Louis Nduwimana	UNDP is the leading multilateral donor that is pushing and supporting the GOB in the area of environment as well as EE&A specifically
10	International NGO's agencies like IUCN, WWF, AWF, etc.	-	-

Burundi ecological zones

