



## Forming Basin-wide Networks: a strategy for Implementing Transboundary Environmental Education activities<sup>1</sup>

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### Key words

Transboundary, Networking, Environmental Education, Awareness, implementation, Planning, Monitoring, River Nile Basin

### Abstract

*Environmental education and awareness is one of the tools for combating environmental degradation. Some success has been reported in implementations of environmental education and awareness activities at national level. However there are few case studies on cross-border EE&A activity implementations reported and even fewer which are transboundary in nature.*

*Networks have been formed for various reasons. Mostly for sharing information, creation of synergy and in some cases help in monitoring and evaluation. Rarely are networks formed for planning and implementation.*

*This paper shares and describes a story in action on experiences in formation of networks as a means for planning implementation and monitoring of transboundary activities. The formation process is described, cases studies on their functions and activities implementation shared as examples.*

This is a working Paper which is intended to share both process and methods while comparing with similar work done else where. The paper is also intended to illicit comments and debate. The views expressed are those of the author alone and not necessarily those of NBI.

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## Introduction

The Nile basin is home to about 160 million people, majority of these, live in rural areas and depend directly on land and water resources for shelter, income and energy. Six of the ten Nile basin countries<sup>2</sup> are among the worlds poorest, with a GDP of less than US\$250 (NBI, 2001). Such grinding poverty in combination with very rapid population growth has put enormous pressure on the natural resources and ecological systems on which economic development is based.

Having recognised their common concerns and interests, the Nile basin riparian countries established in 1999 the Nile basin initiative (NBI) whose vision is *'To achieve sustainable socioeconomic development through equitable utilisation of, and benefits from, the common Nile Basin water resources'*

To translate this shared vision into action, the NBI launched a strategic Action Program which includes two complementary components: a basin-wide Shared Vision Program (SVP) and Subsidiary Action Programs (SAPs).

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<sup>2</sup> Burundi, D.R. Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, Uganda. Eritrea is an observer.

The SVPs include eight projects: seven basin-wide thematic projects and one aimed at building the capacity of NBI secretariat for the program execution and coordination. These are:

1. Nile Transboundary Environmental Action (NTEA)
2. Nile basin Regional Power Trade
3. Efficient Water Use for Agricultural Production
4. Water Resources Planning and Management
5. Confidence building and Stakeholders Involvement (CBSI)
6. Applied Training
7. Socio- Economic Development and Benefit Sharing
8. SVP Coordination

The objectives of the SVPs are (i) help in establishing a foundation for transboundary regional cooperation and (ii) create an enabling environment conducive for investment and action projects on the ground within an agreed basin-wide framework while the SAPs are aimed at the delivery of actual development projects on poverty reduction, economic development and reversal of environmental degradation (NBI, 2003).

The Nile Transboundary Environmental Action Project (NTEAP) 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: (i) improve the understanding of the relationship of water resources development and environment; (ii) provide forum to discuss development paths for the Nile with a wide range of stakeholders; (iii) enhance basin-wide cooperation and environmental awareness and (iv) enhance environmental management capacities of the basin-wide institutions and the NBI (NBI, 2002).

In order to achieve these objectives the project is divided to five components.

1. Institutional strengthening to facilitate regional cooperation
2. Community-level land, forests and water conservation
3. Environmental Education and Public Awareness
4. Wetlands and Biodiversity Conservation and
5. Basin wide water quality Monitoring

The Environmental Education and awareness component is aimed at creating and enhancing awareness on the River Nile environmental threats<sup>3</sup> and its effects on communities. The main objectives of the component include,

1. Develop or strengthen transboundary partnership and networks of environmental education and awareness practitioners;
2. To build EE&A practitioners capacity;
3. To introduce and build transboundary cooperation;
4. To demonstrate, through pilot activities, the feasibility of developing and delivering a variety of EE&A programs at basin-wide level.

The component will stimulate behavioural change at three levels (i) Public Information and awareness (ii) Schools – through project based

learning and (iii) Universities & Research Institutions.

Table one below gives a summary of EE&A component activities (NBI, 2002)

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<sup>3</sup> Land degradation, water quality degradation, disaster preparedness and loss of biodiversity, habitats and wetlands

**Table 1: Environmental Education and Awareness Activities**

Subcomponent	Activities
Public Awareness	<ul style="list-style-type: none"> <li>▪ Support Transboundary EE&amp;A campaigns based on Nile threats</li> <li>▪ Support capacity building through training, exchange tours of various target groups</li> <li>▪ Facilitate information exchange within the basin</li> <li>▪ Lobby for policy change favouring EE within the Nile basin</li> </ul>
Schools	<ul style="list-style-type: none"> <li>▪ Support electronic network of schools through connectivity and development of electronic modules</li> <li>▪ Support delivering of EE in schools including building teachers capacity and development of teaching materials</li> <li>▪ Support transboundary environmental projects to enhance project based learning</li> <li>▪ Establish Nile Transboundary Environmental Award Scheme</li> <li>▪ Support infusion and mainstreaming of EE within current schools curriculum</li> </ul>
Universities & Research Institutions	<ul style="list-style-type: none"> <li>▪ Support Faculty Exchange; both EE lecturers and Masters students.</li> <li>▪ Develop a regional EE course framework for adoption at Institution level.</li> </ul>

**What are networks?**

Network is defined in Oxford dictionary as a net-like arrangement, a group of people that exchange information, a system of computers linked together. The Ms Word thesaurus gives two words – a system (n) [set-up, set of connections, arrangements, association, group, set of contacts] and meet people (v) [meet people, make contacts, exchange ideas, interact].

There are several notions of networks, which include; information networks, technical networks, professional networks, learning networks, etc. Economists look at networks as tools for increasing returns that result from improved coordination between entities and process of organisational learning. Lupele (2004) suggests that looking at the typology of networks help in their understanding. There basically three types of networks

- Line or chain networks – these have many nodes spread out in more or less linear fashion

- Star or hub networks – relationships move through a central hub or hubs
- All channels networks – communication proceed in all direction

Goldstick (1993) defined a network as a system that links people together for the purpose of sharing information, while Taylor 1997 describes a network as a structure, where informal or formal, that enables people to share information and work together. To elaborate his definition, Taylor, (ibid) gave an example of Share – Net; an informal, collaborative network through which individuals, projects and agencies can both contribute to, and benefit from, the development and use of environmental education resources. Taylor (1997) cautions that a network is neither a computer retrieval system nor a clearing house but rather an informal structure which encourage grass-root participation by local groups and communities, and foster joint activities amongst different stakeholders.

There are several international, regional and national environmental networks. Some are

general and some highly specialised. The functions of these networks also vary but most networks are formed for sharing information. Goldstick (1993) lists some examples as; Climate Network Africa (CAN), *Econews Africa*, World Information Services on Energy (WISE), Alliance of Northern People for Environment and Development, Association for Progressive Communication- a computer network (adopted from, East African Environmental Network (EAEN), etc.

### **Why Nile Basin Environmental Networks?**

One of the main outputs of the NTEAP project is 'to increase number of basin-wide networks of environmental and water professionals' (NBI, 2002).

The EE&A component uses networks as an approach to planning, implementing and monitoring of transboundary environmental education and awareness activities.

Failure of the top-down or centre –to- periphery approaches, lead to participatory approaches made in early 1990s.

A participatory orientation to environmental education was seen as a solution to the top-down, centre to periphery approach. Unfortunately this approach was unable to provide all the answers. More problems emerged as the process turned into a cure-all and increasing became a legitimisation exercise (Taylor, 1997).

This emerged in a new concept of using networks as a means of implementation of activities, especially those of transboundary in nature.

There are several reasons why environmental education networks are vital today (Chumo and Rego (1993).

- It enables organisations and individuals to share and coordinate ideas in the course of planning and implementation of programmes.
- Environment is a cross cutting issue with both many ideas and players at different

levels, hence need to have a forum to enable keep track or respond to all issues

- Networking discourages duplication of efforts
- Allows members to share information and know that they are not working in isolation
- Regional Networks promotes exchange of resources among member organisations and institutions
- Exposing of members to new ideas and in-depth knowledge on current environment concerns within the region, as well as simple technology and skills found successful and useful in other regions

This paper tries to answer two main questions on network formation. (i) How can networking offer better support for the emerging process of transboundary environmental education activity implementation? and (ii) how can one avoid formation of networks that have a deterministic intent to achieve the objectives of the initiating organisation?

### **The Nile Basin Environmental Education Networks**

(Taylor 1997) argues that for a network to be formed there should be cooperation between individuals and organisations with a range of different but complementary skills and equipment. Cooperation takes place because of specific needs and realisation of wider opportunities. This argument fits with the formation process of the Nile basin EE&A networks.

The EE&A component has embarked in the formation of several networks<sup>4</sup> as a mechanism in implementation of transboundary activities, to facilitate information exchange, participate in both planning and monitoring of activities.

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<sup>4</sup> (i) EE&A National Working group, (ii) EE&A Practitioners Network, (iii) Environment Journalists Network and (iv) EE Lecturers Network, (v) Teachers Network and (vi) Members of Parliament Network.

The first step in formation of Nile basin EE&A networks was initiated by first forming a hub at country level. This hub – the national environmental education and awareness working group (NEE&A WG) – was instrumental in a participatory process of forming all the other EE&A regional networks.

#### **a. National Environmental Education and Awareness working group**

This initiative stemmed from the realisation that there are appreciable but uncoordinated projects and activities responding to environmental degradation through environmental education at country level.

Whereas coordination of EE&A activities is vested within the environment enforcement agencies with each country, a forum where more stakeholders can share information is lacking. The need for the formation of such forums was echoed ten years ago in most of the Nile basin riparian states. For example Field (1994) recommended formation of such a forum in Uganda.

The objectives of the national environmental education and awareness working group are;

- Promote awareness and provide a forum for exchange of ideas on EE&A
- Open channels of communication through networking
- Disseminate information regarding EE&A
- Support professional development for EE&A practitioners
- Participatory planning, implementation and monitoring of EE&A activities

The formation process was done through a workshop. A cross-section of stakeholders on EE were invited to form the network and plan for national EE&A activities. On average twenty five people participated representing non-governmental organisations, civil societies, relevant Government ministries, the private sector, media and groups (youth and women)

The two-day workshop came up with (i) a list of national working group committee (ii) list of national activities and recommendations on how the network can be sustainable (NTEAP, 2004).

#### **b. Nile basin EE&A Practitioners Network**

The need for participatory planning, implementation and monitoring of transboundary EE&A activities was the backbone of this network. The fact that countries within the Nile basin are on different stages of EE&A activity implementation; there was need for sharing information to move them to the same level.

The objectives of Nile basin EE&A Practitioners Network include;

- Exchange of EE&A information and case studies to accelerate implementation of activities
- Using participatory approach plan and monitor transboundary EE&A activities
- Create awareness to a wider target group

The core Nile Basin Practitioners' network is composed of four members from each country. The coordinator of environmental education at the national environment agency, an EE&A non governmental organisation representative, a director from the ministry of education and the NTEAP National Project coordinator. The selection was done by the National EE&A working group from each country. The formation workshop was held in Khartoum Sudan 17-19 January 2005. The Network meets once every year.

#### **c. Nile basin EE Lecturers' Network**

Environmental education practitioners are few within the Nile basin. There is therefore need to build capacity. Only two universities – Makerere (Uganda) and Ahilia (Sudan) – offer stand alone courses on environmental education (NTEAP 2005b). The need to develop an EE course framework for the basin where tertiary institutions can adopt can not be over emphasised. Sporadic environmental activities do occur at universities, however deliberate

efforts to form environmental clubs are lacking yet most students at the universities belonged to similar clubs at secondary schools.

The main objectives of the Nile basin EE lecturers' Network include;

- Exchange of information on delivering of environmental education courses at tertiary institutions of learning
- Participate in development of EE course framework and teaching materials for the Nile basin
- Build capacity for network members
- Implement EE&A transboundary environmental activities

The EE lecturers' network was formed in 19-21 May 2005 in Dar es salaam, Tanzania. Two universities per country were represented by one lecturer each.

#### **d. Nile basin Environment Journalists Network**

The media have played a major role in sensitisation of communities through dissemination of information generated and in many cases the only sources of information for various stakeholders.

The media can and do influence the policy makers and their decisions. They also motivate and influence large scale public participation towards environmental conservation.

Due to various reasons, the media have sometimes presented superficial and inaccurate environmental information and exercised selectivity and sensationalism in reporting the Nile basin natural resources. This has created suspicion, lack of confidence and possibly misguided opinions and decisions among stakeholders.

The main objectives of Nile Basin Environmental Journalists Network are:-

- Facilitate information exchange at all levels: locally, nationally, regionally and internationally;

- Strengthen transboundary collaboration in communicating Nile basin environmental issues;
- Enhance capacity of networks members for responsible, investigative, accurate interpretation of facts and reporting

The Nile Basin Environmental Journalists Network was formed through a regional workshop held on July 2005 in Nairobi, Kenya. Two environmental journalists from participating Nile riparian countries attended.

#### **e. Networks to be formed**

##### **I. Nile Basin EE teachers Network**

Bringing educators together for joint program development and training will help nature a new generation in the region that has been exposed to other Nile countries and is more aware of transboundary environmental impacts and opportunities, thus establishing a community of spirit over time.

The main objectives of Nile Basin EE teachers Network are:-

- Share information on delivering (teaching) EE within set curriculum
- Build capacity of EE educators through training of trainers
- Implement jointly transboundary EE&A activities

The network will be formed in April 2006.

##### **II. Nile basin Members of Parliament Network**

Policy affects the implementation of environmental activities. Most of the Nile basin countries have legislations and policies which guide environmental activities. However, most of these policies are not in line with the current changes (NTEAP, 2005). This necessitates constant engagement with the policy makers. This network will

- Provide of forum for Members of parliament from Nile riparian countries

to share information on different policies on environment.

- Provide a one stop shop for lobby for transboundary environment issues
- Provide a forum for creating awareness to policy makers on good environmental practices

This network will be formed in July 2006.

### **How do Networks play the functions of planning, implementation and Monitoring of Activities?**

All the EE&A Networks plays a big role in planning, implementing and monitoring of EE&A transboundary activities.

Planning of activities was done during the formation workshop and NWG meetings. Box 1 below gives a case study of planning for World Environment day (WED) activities in various countries of the Nile basin.

#### **Box 1: Planning for WED**

The EE&A practitioners' workshop proposed transboundary activities (NTEAP 2005a), among them was a need to improve the visibility of NTEAP at country levels. The WED was selected as a good entry point

The National EE&A working groups in each country planned for a variety of activities to be implemented. The working group also played an active role in the implementation.

Box 1 gives an example of activity implementation by the EE&A NG networks. Some Network members implement activities directly. For example all members of EE&A practitioners' network were trained as trainers on EE&A materials development. The TOTs have been involved in training at country level giving a multiplier effect.

The EE&A practitioners annual workshops plan and monitor implementation of the previous years implementation. The EE&A working group monitor implementation of activities at national level. This two-tier system (both at regional and national level) helps in monitoring

and provision of feedback on activities implementation.



**Picture 1:** Product of Materials development Workshop in Congo DR



**Picture 2:** Practitioners evaluating EE&A activities in Rwanda

### **Nile basin Environmental Education Networks - deterministic intent?**

Ideally, networks are supposed to form spontaneously. What happens when they do not form while they have a big role to play?

As argued in this paper, formation of networks has played a major role in planning and implementation and monitoring of transboundary activities. Formation of networks is also a mandate of the NTEAP project (NBI 2001). Networks have also been recommended by various authors as one of the tools of ensuring awareness reaches wider audience (Field, 1994). How then does one ensure that these networks are not deterministic in nature both in the formation process and achieving their objectives? To answer this question this paper looks at indicators of non deterministic networks viz cooperation of individual members, ability to implement beyond the objectives of the forming organisation and the whether the networks a sustainable.

As argued by Taylor (1997), cooperation among individuals of the networks is one of the main ingredients of a non deterministic network. The issue of cooperating individuals was explored in



details during the formation process of all the Networks.

The other aspect of a non deterministic network is the ability of the formed network to plan, implement and monitor other activities outside the forming organisation. Whereas the EE&A networks are rather young, this is already happening as indicated by in box 2 below

**Box 2: Case studies – Discussing and Implementation of activities more activities**

**NWG Meeting in Ethiopia**

The first and subsequent EE&A National working group of Ethiopia deliberated on issues beyond the set agenda for NTEAP. The working group has a chance to discuss the use of Technical Vocational Training Centres for EE training in the whole country.

**Development of UN Education for Sustainable Development national and regional plan of action by Practitioners Network**

Being the decade for UN ESD, EE&A Practitioners dedicated sometime in discussing and planning for national and regional plan of action. They also gave feedback for the plan of action for the Africa programme.

This is an indication that the Network is deliberating on issues other than the Nile Basin agenda.

Even more important is the issue of sustainability of the formed networks. Will they continue after the life of the forming organisation ceases?

Together with the network members, the issue of sustainability is constantly being reviewed in all meetings. In addition an exit strategy for each network has been developed. For example, the National EE&A working group uses the diversity of composition of its members as one element, while being hosted by the government environment enforcement agency as the other. This strategy has already bearing fruits as in the case of Burundi where the working group is a fully recognised organ by the government by a decree form the Minister of Environment. The Environmental Journalists networks suggested developing a secretariat and national chapter office and use members as a pool of consultants to initiate income generating activities, like production of environment documentaries.

**Evaluation of networks so far**

Literature gives prescriptions of what makes good networks. Goldstick (1993) for example determines a successful network as one which should;

- Clearly define what is relevant;
- Get the objectives of the network right and correctly
- Choose effective ways of communicating
- Establishment of personal contacts where people develop in the first workshops and then maintained through other meetings
- Active linkages with other networks

Where as it could be too early to evaluate the recently formed EE&A networks, the initial planning and implementation of some activities gives an indication of progression towards the intended functions. These include:

- Sharing of information among and within members, including case studies on success EE&A from different countries
- Implementation of various activities. For example EE university student exchange programme by EE Lecturers Network
- Planning and implementing activities outside the NTEAP project. A case of UN ESD and frequent meetings of National EE&A working group are good examples.

Within the short time, certain challenges have also been observed.

**Main challenges for the Networks**

- Members are far and wide and it is very costly to allow them meet even once a year
- Most members are project implementers and can spend up to three weeks per month out of office
- Non effective distribution of information by members to their local networks

- Making members active in implementation of activities within their busy day schedules

### **Recommendations through lessons learnt**

There are several lessons which have been learnt while forming and using the networks for implementing transboundary activities.

- Networking activities should be part of everyone's daily activities, not an add-on.
- Many NGOs and CBOs are working on EE. There should be a deliberate effort at national level to bring these institutions together. Creating and enhancing partnership and networks is

paramount in the execution of EE&A at all levels.

- There is need not only to view networks in terms of people, but look at how the network is made, maintained and functions.
- For network members to take interest, networks should be encouraged to implement common activities together.
- There is need to form legal structures for the networks and find legal entities within the governments. The recognition of National EE&A Working group by the Government of Burundi as a legal structure within the Ministry of environment indicates its sustainability.

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