



EASTERN NILE TECHNICAL REGIONAL OFFICE (ENTRO)

NOTE ON STRUCTURING THE ENVIRONMENT MANAGEMENT PROCESS AT ENSAP

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Acronyms

CRA	Cooperative Regional Assessment
EEHC	Egyptian Electric Holding Company
EEPCO	Ethiopian Electric Power Company
EIA	Environmental Impact Assessment
EMF	Environment Management Framework
EMP	Environment Management Plan
EMS	Environment Management System
EMU	Environment Management Unit
EN	Eastern Nile
ENCOM	Eastern Nile Council of Ministers
ENIDS	Eastern Nile Irrigation and drainage Study Projects
ENPTSP	Eastern Nile Power Trade Study Project
ENSAP	Eastern Nile Subsidiary Action Program
ENSAPT	Eastern Nile Subsidiary Action Program Team
ENTRO	Eastern Nile technical Regional Office
ESIA	Environmental and Social Impact Assessment
ESPTP	Ethiopia-Sudan Power Transmission Project
FPEW	Flood Preparedness and Early Warning Project
ISP	Institutional Strengthening Project
JMP	Joint Multi-purpose Program
JMP-1	First Set of Projects of Joint Multi-purpose Program
MEA	Multi-lateral Environmental Agreements
NBI	Nile Basin Initiative
NBSF	Nile Basin Sustainability Framework
NEC	National Electricity Corporation-Sudan
Nile-COM	Nile Council of Ministers
NTEAP	Nile Transboundary Environmental Action Project
RAP	Resettlement Action Plan
RCP	Resettlement and compensation Plan
SA	Sustainability Assessment
SAPs	Subsidiary Action Programs
SDCO	Social development and Communication Office
SDM	Structured Decision Making
SHC	Stakeholder Consultations
SSEA	Strategic Social and environmental Assessment
WRPU	Water Resources Planning Unit
WSP	Watershed Project

Summary

ENTRO has been mandated by Nile-COM to ensure sustainability and target reversal of environmental degradation and by ENCOM to ensure good practice in environmental in project preparation. ENTRO is striving to meet these instructions by fulfilling the interlinked (rather than separate) project needs. Also, since the expansion in activity and growth in size ENTRO is looking forward to structure the environment management process to make an efficient and pronounced contribution towards the sustainability of ENSAP projects aiming at enhancing ecosystems resilience, economic prosperity, and poverty alleviation in the EN region.

Structuring the environment management process under one program ensures linkages between environment and various projects and activities and documents it and make it automated, ensures better use of financial resources and support the environment management (especially SEA) as a consensus building and planning tool. In addition, a one EM process at ENTRO will be able to link closely and create synergies between the multitudes of activities (such as capacity building, climate change and long-term cumulative impacts assessment of projects) and to mediate the process of planning and IWRM. Also the environment management process and shall not be isolated from strategic planning to project planning to development.

Specifically a structured environment management process streamlined to stakeholder similar processes to ensure benefits for all stakeholders, may require initiation of a strategic environment program inline with ENSAP mandate building on the current ENSAP and EN countries institutional structure to:

1. Address country needs in capacity building technically and institutionally to enable addressing ENSAP pertinent priority environmental issues
2. Create synergies among ENSAP projects to better address environmental issues
3. Create a regional institutional arrangement to address environmental issues at the transboundary level linking closely with the national environmental authorities
4. Bolster the relevance and legitimacy of ENTRO to build an internationally responsive institution able to mobilize funds and attract international interest.

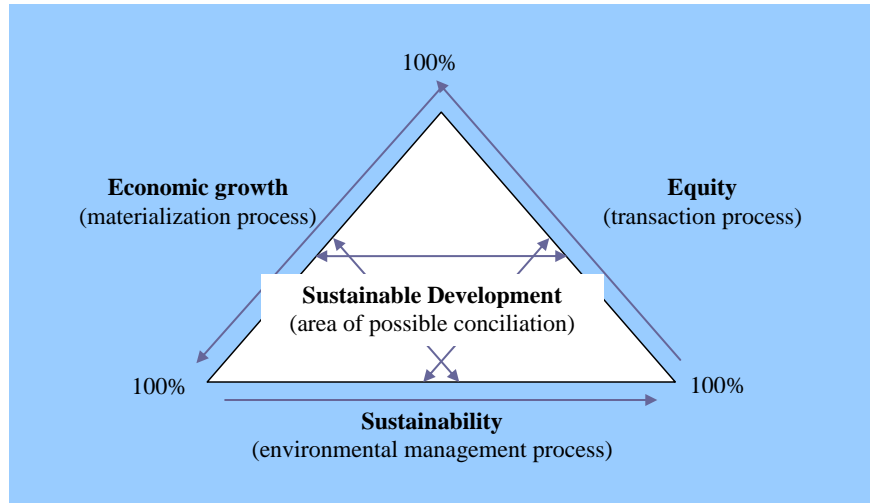
An environment management program at ENTRO shall be based on four pillars, which are: Program issues and activity (Strategic environment program agenda), program management (environment management system, EMS) human resources, and program financial resources. The program is managed through a framework that employs the plan-do-check-act continual improvement cycle fully integrated within ENTRO's structure. Main components of the strategic environment program are:

1. Compliance with all applicable EN countries environmental laws and regulations, and with other requirements to which the EN countries subscribes.
2. Identification and implementation of techniques and environmentally sound practices that emphasize environment upstreaming at the earliest possible project preparation levels.
3. Promotion of continual improvement in ENTRO's environment management process practice and procedures leading to improved environmental performance of projects. Promoting climate change proof activity at ENSAP as well as the national level.
4. Open communication and consultation with all stakeholders in the process of identifying pressing environmental issues in the EN countries, ENTRO identified environmental aspects, objectives and targets and programs to achieve them, and the results of these efforts.
5. Coordination of efforts and actions necessary to handle the transboundary nature of environmental issues.

I. Context for Sustainable Development and Environmental Management

NBI vision is “to achieve sustainable socioeconomic development through the equitable utilization of and benefit from, the common Nile Basin water resources”. The NBI, through this vision, is laying the ground for an environmental sustainability, which is further strengthened by the NBI overriding objectives.

The overriding objectives of the NBI are; Poverty reduction, Reversal of environmental degradation, Promotion of economic growth, increased regional cooperation and integration, and Enhanced regional peace and security. NBI strives to accomplish this through preparing and implementing a set of selected, visible, benefit-



generating investment projects in the two main regions of the Nile: the Eastern Nile, and the Nile Equatorial Lakes regions while abiding to its guiding principles of; Benefit-sharing, Win-win projects, and No significant harm.

On February 22, 1999 Nile-COM adopted the policy guidelines for the Nile River Basin Strategic Action Program. The guidelines provide a basin-wide framework for moving forward with cooperative action, set forth in the primary objectives of the NBI, and also provide a framework for environmental management in the NBI context embodied in the set of policy guidelines to translate the transboundary development opportunities within the agreed basin-wide framework. These policy guidelines for implementation of SAPs are:

1. Action on the ground needs to be planned at the lowest possible level.
2. Planning must involve all those who will be affected.
3. SAPs to be built on principles of equitable utilization, no significant harm and cooperation.
4. Range of development projects will vary depending on needs and opportunities.
5. Benefits, costs and risks to be distributed equitably.
6. Resources to be utilized efficiently; **environment must be protected**.
7. Bundling projects into programs to counterbalance the positive and negative impacts of different projects.

1.1 ENTRO's Mandate

The operational vision of EN clearly requires development to be conducted in an environmentally sustainable manner. *Operational Vision of the Eastern Nile* states “Within this overall vision, the River Nile will serve as a key catalyst, with its yield increased and utilized in a rational, fair, efficient, and environmentally sustainable manner, with effective flood and drought management, watershed management. Reversed desertification, and pollution control”. ENTRO works for the shared benefits of cooperation among the EN countries by planning development projects depending on needs and opportunities, and building on NBI guiding principles, and by bundling projects into programs to counterbalance the positive and negative impacts of different projects, promotes efficient resources utilization ensuring the environment must be protected as well as the health and well being of the citizens of the EN countries. ENTRO's strategy 2006-10 clearly recognizes the transboundary

environmental challenges faced by the EN countries, and in its SWOT analysis, ENTRO have identified an opportunity to increased awareness of impacts of climate variability and ecological changes which is a major cross-cutting environmental challenge.

Most recently, in its 19th meeting, ENCOM instructed ENSAPT/ENTRO to:

- Initiate JMP-1 identification and preparation in the Blue-Main Nile system by identifying the scope and sequence of specific projects.
- Prepare identified projects, ensuring technical, economic and financial soundness and social and [environmental good practice](#).
- Develop and implement a strategic communications and consultation program to ensure stakeholder engagement and awareness including dissemination of all studies related to the JMP.

1.2 ENTRO's Environmental Practice

ENTRO recognizes environment management as a critical step towards materializing sustainable cooperative investments of the EN under ENSAP framework. Not only environmental sustainability may strengthen cooperation and stakeholder involvement, but it can also help further support identifying concrete regional joint multipurpose projects and prioritize projects in a regional context. ENTRO is bundling projects into programs to counterbalance the positive and negative impacts of different projects, promotes efficient resources utilization ensuring the environment must be protected as well as the health and well being of the citizens of the EN countries. For example, the JMP is an example leading the basin in integrated planning, vis a vis targeting environmental degradation, and proactive environmental management, social development and planning.

By its scope and nature of project preparation and implementation supervision, ENTRO has consistently ensured environmental and social good practice and accumulated experience in employing and conducting a variety of environmental and social management instruments such as the Cooperative Regional Assessments (CRA) for the ENPTSP, WSP, and ENIDS, Strategic Social and Environmental Assessments (SSEA) for ENPTSP, Environmental and Social Impact Assessments (ESIA) for the ESPTP, Resettlement and Compensation Plans (RCP) for the ESPTP, EMPs for the ESPTP, EMFs for the WSP and FPEW, and Environmental and Social Monitoring and Audit currently performed biannually for the ESPTP (**Table 1**). In addition capacity building (CB) is one of the cross cutting activities linked to all of the above. In this regard, ENTRO has helped the power utilities in NEC and EEPCO to establish EMUs learning from EEHC. In addition to these activities capacity building activity in the field of environment as well as promoting climate change proof development through defining ENTRO's approach were of major emphasis recently.

However, currently there is no one EM process at ENTRO to link closely and create synergies between the multitudes of activities (such as capacity building, climate change and long-term cumulative impacts assessment of projects) and to mediate the process of planning and IWRM. Also the environment management process and shall not be isolated from strategic planning to project planning to development. Structuring under one program ensures linkages between environment and various projects and activities and documents it and make it automated, ensures better use of financial resources and support the environment management (especially SEA) as a consensus building and planning tool.

[In this mainstream and very upstream context, and with this huge volume of environmental output, it is therefore, compelling and inevitable that ENTRO establish a robust environment management process that will fit within and link with the NBSF. Towards this end, ENTRO is preparing this note towards the successful formulation and implementation of it environmental management activity.](#)

Table 1. Environmental Management in the Project Cycle

Project Cycle Stage	Environmental Management Tools Used in Projects
Program and Strategy development	JMP SSEA, BAS SSEA
Project identification	WS CRA, ENPTSP CRA, ENIDS, CRA ENPTSP, SSEA
Pre-feasibility, Feasibility	ENPTSP Initial environmental evaluation, ESIA, RCP, EMP
Detailed Design	National fast track WS, ESMF
Construction	ES Interconnection, EMP, RCP
Operation/implementation	ES Interconnection, Monitoring

1.3 Objectives of Structuring the Environment Management Process

The overall objective of a structured environment management process is the efficient and pronounced contribution towards the sustainability of ENSAP projects aiming at resilient ecosystems, economic prosperity, and poverty alleviation in the EN region. The structured environment management process will foster integrated, transparent and improved decision making process regarding shared natural resources in a transboundary context. In addition, a structured environment management process will answer key questions pertaining to the ecohydrology and ENSAP projects such as what are the effects of environmental degradation on the profitability of ENSAP projects and what are the benefits of existing environment infrastructure. Aligning environmental and water resources development strategies will help ENSAP/ENTRO address emerging sustainability challenges and opportunities, not the least of which is energy development.

Specifically a structured environment management process streamlined to stakeholder similar processes to ensure benefits for all stakeholders, shall initiate a strategic environment program inline with ENSAP mandate building on the current ENSAP and EN countries institutional structure to:

1. Address country needs in capacity building technically and institutionally (such as EMU's at corresponding national institutions) to enable addressing ENSAP pertinent priority environmental issues
2. Create synergies among ENSAP projects to better address environmental issues
3. Create a regional institutional arrangement to address environmental issues at the transboundary level linking closely with the national environmental authorities as well as establishing an appropriate approval mechanism for the regional ENSAP projects environmental studies to meet country requirements and enhance compliance with country MEA's.
4. Bolster the relevance and legitimacy of ENTRO to build an internationally responsive institution able to mobilize funds (especially for project implementation) and attract international interest.

II. Elements of Structured Environment Management Program at ENSAP

This program will be formulated to achieve these objectives and principles as outlined below:

1. **Build on existing management system components at ENTRO.** The best environment management process is one in which environmental issues have been completely integrated into the organization's culture and management. The environment management process must fit within the structure of the organization and its process components to support attainment of its strategic objectives.
2. **Use an appropriate environment management framework.** Using an environment management framework that employs the plan-do-check-act continual improvement cycle to facilitate communication and to increase awareness in the EN countries.
3. **Engage the organization.** Actively engaging ENTRO staff and stakeholders in the development and implementation process is crucial to building an effective environment management framework.

Like any other program the environment management at ENTRO shall be based on four pillars. These pillars are: Program issues and activity (Strategic environment program agenda), program management (environment management system, EMS) human resources, and program financial resources. Each of these elements is described briefly below:

2.1 Environment Program Management (EMS)

Based on the approved version of this document ENTRO shall prepare an environment management framework (corporate/organizational environment policy) and in line with the organizational environment policy ENTRO shall develop and annual activity plan, implementation responsibilities, and appropriate channels for communications.

All projects under ENSAP will eventually streamline the organizational environment policy in their respective activities. At the lowest operational level will produce a guiding document (published manuals/booklets for each project) on environment referring to best environmental practices with cases from the region and internationally.

2.2 Strategic Environment Program Agenda

Aiming at greater consideration of options when planning infrastructure, enhanced dialogue between stakeholders, improved integration of environmental aspects in frameworks relating to infrastructure And improved capacity of stakeholders in EM of infrastructure; ENTRO, in its operations and activities, will demonstrate leadership and environmental stewardship through a structured environmental management process coordinated and synergized among ENSAP projects that;

1. Ensures compliance with all applicable EN countries environmental laws and regulations, and with other requirements to which the EN countries subscribes; including donors and international bodies. This shall be achieved through establishing EM focal points, primarily at the corresponding national institutions, strong linkage with the national environmental authorities, and the support of a regional environment advisory group. This arrangement will constitute bases for approval of environmental studies.
A country assessment study to guide ENTRO on strengthening national institutions through an informed capacity building program is the pillar of this program agenda.
2. Identifies and implements techniques and environmentally sound practices that emphasize environment upstreaming at the earliest possible project preparation levels and contribute to resilience of the EN environment; such as SSEA, CRA, EIA, EMP, RCP, SHC, SA, SDM, and monitoring and corrective actions during implementation and operation phases of projects as per international best practice.
3. Promotes continual improvement in ENTRO's environment management process practice and procedures leading to improved environmental performance of projects by implementing M&E to complement the plan-do-check-act cycle.
4. Openly communicate with all stakeholders in the process of identifying pressing environmental issues in the EN countries, ENTRO identified environmental aspects, objectives and targets and programs to achieve them, and the results of these efforts. Stakeholder consultations and public involvement, throughout the dissemination, communication, capacity building, and other meetings and events. Promoting climate change proof activity at ENSAP as well as the national level by building capacity and sharing information is identified as a major activity. The sources of information include but not limited to; ENTRO and other relevant studies, NTEAP outputs, and stakeholders consultations.
5. The transboundary nature of environmental issues necessitates coordinated efforts and actions. ENTRO shall encourage partnerships and environmental stewardship and foster improved environmental collaboration with stakeholders by Exchanging mutually beneficial

knowledge with, and encouraging open communication among, all stakeholders including partners, communities, the general public and environmental associations , regional and national agencies, and other State environmental protection agencies.

As **Table 2** indicates, it is envisaged that four main groups of activities will take place: strengthening normative and operational frameworks; strengthening planning and management processes; improving access to information on practices and technology options; and training human resources. The issues suggested in the left hand column are aspects that need to be addressed during a project life cycle. They include, but not limited to options assessment, stakeholder participation, strategic environmental assessment (SEA), transboundary impact assessment (TIA), environmental management plan (EMP), environmental management system (EMS) and approval mechanisms. Examples of the kind of activities earmarked to take place within this matrix are provided in the body of **Table 2**. These were found to be fruitful areas of engagement by ENTRO to facilitated multistakeholder dialogue and produce non-prescriptive tools with the ultimate aim to strengthen structures and capacities to the stage where the full range of options will be considered at every stage of the project cycle, from early planning up to decommissioning.

2.3 Organizational Framework for Program Implementation

Through the strategic programmatic approach to environmental management outlined, ENTRO will use its comparative advantage to drive the process and pursue the achievement of the set goal and objectives by channeling information and mobilizing resources, including from expert sources and partner organizations, in the direction of those in need of the resources. Areas where ENTRO involvement and support will lead to enhanced performance include EM awareness raising, EM Networking and dialogue, Building an EM practice and technology information base, EM practices dissemination and technology transfer, and EM training.

Existing human capacity within ENTRO and national corresponding institutions to manage and implement environment program activities are:

- WRPU, Environment Specialist
- EM focal points at corresponding national institutions already established or to be established
- Social development and communication unit (SDCU), social development officer and communications Officer, the Baro-Akobo-Sobat multipurpose project coordinator because of the sensitivity of environmental issues in this project, and watershed project coordinator as the watershed is the executive arm of the environment function at ENSAP
- EN-Regional Advisory Environmental Group, and EN-Climate Change Group

ENTRO shall continue to provide human, financial and technical resources appropriate to the active management and maintenance of the environment management program; including capacity building, and program control.

2.4 Program Finance

As many regional priorities will be addressed in these areas, it is envisaged that the organizational structure for implementation will comprise a centralized team lead by the EMS located at ENTRO, supported by decentralized focal points at the corresponding national institutions. Multi-stakeholder regional advisory-consultative environmental groups/committees will provide advice on substance and guidance on activities. The estimated cost of the program will depend on the range and modalities of implementation of the local and regional activities.

Current finance for environment activities comes from sources such as project opportunities, bilateral funding, ISP, Cross cutting, and other opportunities. In addition future opportunities exist within ISP. Additional sources of funding shall be sought as necessary and when opportunities exist.

III. Strategic Environment Program Approval and Follow-up

This note after shall be presented and communicated to ENSAPT and ENCOM. The detailed program development, activity plan development, implementation and continuous improvement and updating is the responsibility of the environment specialist, currently under the water resources planning unit (WRPU) of ENTRO. ENTRO is responsible for reporting activity to ENSAPT for further guidance.

To achieve the goals and objectives of the EMS, and to promote continual performance improvement, ENTRO will develop and implement an environmental management system that includes, a direct link to ENTRO 's strategic unit and the budgeting and monitoring and evaluation processes under the same unit.

IV. Conclusions and Way Forward

The strategic program described above offers a response to the identified need that ENTRO should specifically address infrastructure and environment sustainability. ENTRO shall do so in a way that builds on in-house experience and involves strong partnership building with organizations and agencies with practical experience in the area that can be disseminated to those who could benefit from such experience.

As a next step, further consultation with EN stakeholders, other development partners and stakeholders will provide more practical inputs to the program in terms of substance, implementation modalities and finance.

Table 2. Nature and focus of the proposed activities

Issues	Actions			
	Strengthen normative and operational frameworks	Strengthen planning and management processes	Improve access to information on technology options	Train human resources
Options assessment	Incorporate into environmental management framework; develop sectoral and specific guidelines	Incorporate into sectoral, cross-sectoral, regional and project planning for integrated river basins management	Environmental flows; multi-criteria analysis; valuation of ecosystem goods and services	Identification of needs and options; preparation and conduct of options assessment options; assessment processes and components;
Stakeholder participation	Develop specific corporate and organizational environment policy and environmental management framework to encourage dialogue	Strengthen stakeholder participation in planning and management processes at all levels and stages	Participation and communication plans, public hearings, workshops, other consultation meetings; media, internet etc.	Stakeholder participation mechanisms in broad way including identification of stakeholders, facilitation of meetings and conducting of surveys
SEA, TIA, EMP, EMS	Strengthen and support compliance with environmental law and environmental assessment regulations	Promote relevant assessment and management tools, with attention to social impacts and trade-offs	Baseline studies, impact assessment techniques and models, monitoring tools	Preparation for and conduct of baseline specific studies, evaluation, monitoring, assessment
Approval mechanisms	Incorporate into environmental management framework; promote corporate social responsibility	Promote incorporation of approval mechanisms into project documents	Facilitate approaches to approval	Approval mechanisms, stakeholder participation

