NILE BASIN INITIATIVE

EASTERN NILE SUBSIDIARY ACTION PROGRAM (ENSAP)

Annual Report, July 2012-June 2013

August, 2013
Addis Ababa, Ethiopia

Eastern Nile Technical Regional Office (ENTRO)

We Work for the Shared Benefits of Cooperation

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List of Acronyms:

AFD	-	Agence Francaise de Development
AfDB	-	African Development Bank
CRA	-	Cooperative Regional Assessment
DSS	-	Decision Support System
EMG	-	Environmental Management Guidance
ENPM	-	Eastern Nile Planning Model
ENWM	-	Eastern Nile Watershed Management
GBO	-	Global Development Objective
GEF	-	Global Environment Forum
IPoR	-	Independent panel of Reviewers
ISP	-	Institutional Strengthening Project
JMP ID	-	Joint Multipurpose Program Identification
LIU	-	Local Implementation Unit
MOST	-	Ministry of Science and Technology
MSIOA	-	Multi-Sector Investment Analysis
NBTF	-	Nile Basin Trust Fund
NCORE	-	Nile Cooperation for Results
PFMA	-	Potential Failure Mode Analysis
PIPEP	-	Project Implementation Performance Enhancement Plan
RISM	-	Review and Implementation Support Mission
RWH	-	Rain Water Harvesting
SWC	-	Soil and Water Conversation
TBIWSP	-	Tana Beles Integrated Watershed Project

1. Background Information

1.1. Program Background

1.1.1. Program Standard Data

i. Program Name: Eastern Nile Subsidiary Action Program (ENSAP)

ii. Ongoing Projects:

- Eastern Nile Planning Model,
- Eastern Nile Watershed Management,
- Baro-Akobo-Sobat Multi-Purpose Water Resources Development Study,
- Joint Multi-Purpose Program,
- NBI-Institutional Strengthening Project (NBI-ISP)

iii. Program Partners:

a) **Owners:** The Governments of Egypt, Ethiopia and Sudan

b) **Development Partners:** GEF-WB, AFD, Netherlands, NORAD, NBTF (EU, CIDA, Finland, France, Norway, WB)

c) **Key Stakeholders:** Communities in the EN Basin, Relevant government agencies, NGOs, Civil society, private sector, universities, media and others.

iv. Duration of the program**:** Continuous, however individual projects with varying start and closing dates (two to three-years duration on average)

v. Total Program Budget**:** Estimated preparation cost is USD 49.0 m as per PAD (May 2001) Total current year budget (July 2012 to June 2013) is USD 9.3 million

vi. Program location**:** ENTRO Headquarters in Addis Ababa, Ethiopia with the individual ENSAP Project activities in the EN Countries: Egypt, Ethiopia and Sudan

1.1.2. Program Goal and Objectives:

Program Goal: To develop the water resources of the Eastern Nile in sustainable and equitable way to contribute to poverty reduction and to ensure prosperity, security and peace for its entire people.

Program Objectives:

- Poverty reduction,
- Reversal of environmental degradation
- Promotion of economic growth,
- Increased regional cooperation and integration
- Enhanced regional peace and security

1.1.3. Key Milestones in the reporting period:

- The following three ENSAP/ENTRO projects phased out at the end of December 2012:
  - Eastern Nile Planning Model (ENPM),
  - Joint Multipurpose Project(JMP I ID), and
  - NBI-Institutional Strengthening Project (NBI-ISP).
- Nile Cooperation for Results (NCORE) project approved by World Bank and started implementation in the 1st of January 2013,
- Grant Agreement signed with AfDB in May 2013 for Baro Akobo Multipurpose Water Resources Study Project.

1.2. Report Background:

The annual report covers the progress of ENSAP for the period July 2012-June 2013. It is prepared in line with the Results-Based Reporting System of NBI, focusing on results and on the basis of the annual work plan and budget for July 2012-June 2013. The report consists of background information, internal and external contexts of implementation, program achievements (physical & financial), major challenges & constraints, and lessons learned & recommendations.

2. Context as it affected Project implementation:

2.1 External Context & effects on implementation:

The technical support provided by the World Bank team and the Panel of Reviewers have been immense and invaluable for reviewing the JMP I Working papers to ensure quality and accepted standard.

At the launch of NCORE in January 2013, ENTRO was facing a formidable challenge regarding recruitment of regional staff, as staff selection depended on country endorsement. Staff vacancies were not limited to new positions relating to NCORE (Dam Expert, Water Resources Engineer, and Modeller) and the new ENTRO Management Team, but also included existing positions that became vacant upon resignation of incumbents (Environment Management Specialist and Development Communication Officer). In consultation with ENSAPT Chair, ENTRO is planning to advertise the vacancies, undertake short-listing and organize interviews for selection. It is expected that the technical positions would be filled before end of 2013

In the context of inability to recruit regional staff, ENTRO adopted two mitigation measures to advance planned NCORE activities: reliance on short-term Individual Consultants and diligence in selection of Interns for the EN Young Professional Program. Two experts (GIS and Geo Database Specialists) were contracted to consolidate the knowledge base established under the ENPM and other ENSAPT projects and to establish the EN central geo-database/ GIS Platform for the EN Multi-sector Investment Opportunities Analysis (MSIOA) planned under NCORE. Likewise a Water Resources Engineer was engaged to advance work on Dam Safety. To assist the Senior Water Resources Planner in supervising the work of Interns, Junior Water Resources

Engineer and Junior Modeller were recruited. In addition, Executive Consultant and Advisor (the former ENTRO EDs) were contracted to support ENTRO management.

ENTRO officers together with the Individual Consultants have made moderately satisfactory progress in advancing planned activities. Virtually all TORs for the main consultancies were formulated and cleared by the World Bank. By September 2013, all studies will be launched. Good progress was also achieved in areas of knowledge management and capacity building as elaborated in this report

2.2 Internal Context & effects on implementation:

The team work sprit which is well developed at ENTRO results in significant contribution for efficient implementation process. The JMP I technical teams and management members have been involved in the restructuring process of the JMP I ID ToR, contract negotiation, review of study reports, facilitating and providing logistical support during technical meetings and workshops.

3. Actual Results:

3.1 Results for the period:

Short-term Outcome 1.3: Increased ENSAP dialogue and partnership with civil society, local communities, private sector and development partners

- **Joint Multipurpose Project (JMP):**

Even though it was planned to organize and facilitate the wider stakeholder consultation workshops for working paper # 1 and #2, the meeting was held between the JMP I and World Bank team members only because of the current situation in the NBI.

Short-term Outcome 2.1: Stronger EN institutional architecture at national level to identify, prepare and implement cooperative developments

- **Eastern Nile Watershed Management (ENWM):**

Social Safeguards and conflict management workshop: The workshop was organized in Khartoum, Sudan from 21-23 December 2012. Participants were drawn from the three EN countries. The workshop was dedicated to addressing social safeguard and conflict management issues related to project planning, implementation, and monitoring. The specific objectives of the workshop include:

1. To introduce basic concepts of conflict, conflict management as related to the design and implementation of community based Natural Resource Management projects,
2. To discuss and agree upon next steps: a Conflict Clinic Setup for the EN WSM-Sudan and
3. To present the 1st Draft ENSAP Social Management Guidance for review and feedback.

The workshop was focused on providing conceptual background to natural resources based conflict; reviewing experiences within and outside the Eastern Nile basin through presentation of case studies and assessing their implication for the design, implementation and monitoring of watershed projects in the Eastern Nile basin.

Resource persons were primarily from ENTRO together with local experts from Ethiopia and Sudan. They presented field case studies from their respective countries which demonstrate the benefit of being adaptive, learning by doing and being flexible when implementing projects in conflict or post conflict situations. The discussion was also enriched by the active involvement of participants from the three EN countries.

The social development and communication unit at ENTRO took the lead role in organizing the workshop and was financed from ISP project.

Environmental and social management workshop: The workshop was organized in Singa, Sudan from March 31 – April 4, 2013. Participants were drawn from the three Local implementation Units and the Coordination Office of the Community Watershed Project in Sudan. The environmental and social sustainability of this Project that operates in a post conflict environment and with sensitive issues such as access to land and water has been flagged as a high priority during the Mid Term Review of the project. The objective of the workshop is to create awareness and understanding among management and technical staff of the project on the principles, practices and procedures of safeguard polices. At the end of the workshop, the following specific objectives would have been achieved:

- Project staff and stakeholders awareness will be raised about environment and social issues and capacity will be built for enhance project implementation ;
- project screening and modification (design of mitigation) and monitoring programmes;
- Conflict addressing tools;
- LIU technical staff (TA and Counterparts) , different stakeholders understand social and environmental safeguards principles;
- Practice and procedures and using of this knowledge to improve the design of project activities / interventions;

.
The workshop focused on providing conceptual background and practical approaches to the following:

1. Conflict management and stakeholders analysis
2. Conflict addressing tools
3. Principles and procedures for social and environmental safeguards processes, screening, assessment, etc.
4. Introduction to Environmental management and Environment Management Planning for Community Watershed project
5. Natural resources based conflict and project approach
6. Land Use and conflict issues in Sudan
7. Design and incorporation of mitigation measures.
8. Monitoring of implementation and effectiveness of mitigation measures (during project implementation).

A total of 25 participants from the project and government staff as well as other stakeholders attended the workshop.

Resources persons were primarily from ENTRO together with local expert (from Sudan) who presented field case study that demonstrated the benefit of being adaptive, learning by doing and being flexible when implementing projects in conflict or post conflict situations. The discussion was also enriched by participants from the three countries.

Staff exchange visit to China: An international training/study tour on Rainwater Harvesting (RWH) was organized to The Gansu province, Peoples Republic of China from June 15 to July 4, 2013.

The main purpose of organizing this training/study tour is to document experiences in Rainwater Harvesting in China and draw lessons which will be useful and applicable to the development of integrated watershed management interventions in the Eastern Nile context. In addition, it will provide a forum to discuss on project implementation modalities and contribute to multi-disciplinary perspectives on approaches and thereby ensure performance of project implementation and sustainability of outputs. Such exchange of knowledge will also serve as a forum for capacity and confidence building by enabling interaction among professionals of the basin. Knowledge and experience exchange tour will enhance the technical capacity of institutions involved in watershed management to undertake effective planning, monitoring & evaluation of watershed management interventions and thereby strengthen the role and capacity of national institutions in the development of pro-poor investments and services to promote productive and environmentally sound livelihoods with local community participation. In line with the overall purpose, the international training/study tour on Rain Water Harvesting and watershed development is designed to strengthen the capacity of participants on improved approach on rainwater harvesting through classroom sessions and field visits, particularly to improve the capacity on planning, design and implementation of rainwater harvesting system.

A total of 18 participants drawn from the four Eastern Nile countries and ENTRO attended the training/study tour. This international training/study tour was jointly organized by the Eastern Nile Technical Regional Office (ENTRO) and the Gansu Research Institute for Water Conservancy, Peoples Republic of China. The Ministry of Science and Technology (MOST), People's Republic of China and ENTRO jointly sponsored the training/study tour. EN National Coordinators for watershed project were actively engaged in the identification and selection of participants. The Gansu Research Institute for Water Conservancy was organizing and conducting the training/study tour, including logistic arrangement.

Implementation review and support mission: Two Implementation review and support mission were conducted within the reporting period. The first mission was conducted from November 5 – December 2, 2012 with visits to project sites in Egypt (November 5 – 10, 2012), Sudan (November 11 – 23, 2012) and Ethiopia (November 29 – December 2, 2012). Donor mission contingent comprised staff from the World Bank and the Government of Finland that was represented by its Water Resource Advisor at the Finland Embassy in Ethiopia. Other mission members were drawn from the implementation entities of the Project who came from the three Eastern Nile Basin countries.

The second mission was conducted from June 9 -14, 2013 focusing only on the Community Watershed component in Sudan. The main objective of the mission was to undertake a thorough review of the overall progress of the entire Project since it became effective and also to complete a restructuring of the Sudan Community Watershed Management Component (CWMP) implemented by the Sudanese Ministry of Water Resources and Electricity. Specifically, the Mission was to: (i) measure progress on immediate outcomes and outputs and how these are contributing to the achievement of the project's development objective (PDO) and global development objective (GDO); (ii) measure progress on actions agreed upon during past implementation support missions; (iii) assess the operational effectiveness of the Project's

monitoring and evaluation system; and (iv) develop a project implementation performance enhancement plan (PIMEP) for the CWMP, with the aim of moving it to a satisfactory status

The overall assessment of the review mission indicates that progress was satisfactory.

Training workshop on design and construction of drainage control structures: The training workshop was organized in Woreta, Ethiopia from 13-18 August 2012. Its objective was to enhance the technical capacity of institutions involved in watershed management to undertake effective planning and design on the construction of drainage control structures. A total of 30 participants attended the training workshop. The participants were drawn from Amhara Regional Bureau, zonal and woreda offices as well as from Tana-Beles Integrated Watershed project (TBIWS).

The major topics covered in the training workshop include:

- Agricultural drainage system (definitions and applications),
- Basic principles and practices of drainage management,
- Design, layout, and construction of drainage control structures,
- Integration of various drainage control structures for watershed management,
- Checklist for supervision of planning and construction, and
- Field practice on design, layout and construction of drainage control structures.

A resource person with extensive experience facilitated the training on contract basis. A field guide manual was also prepared and distributed to the participants.

Training workshop on Results and Process Based Monitoring and Evaluation of watershed projects: The training workshop was organized in Bahir Dar, Ethiopia from 30th September to 5th October 2012. The overall objective of the training was to enable participants understand the tools and techniques of effective Results-Based Monitoring and Evaluation that would facilitate the success of their respective projects.

The specific objectives include:

- To clarify M&E concepts(Process based, Results-Based and Participatory M&E);
- To improve the participants' skills to formulate and use the results chain, logical framework and Performance Measurement Framework so that they can monitor and evaluate projects;
- To improve their ability to gather, manage, and communicate project information;
- To enable participants, prepare Results-Based work planning and reporting; and
- To learn methods to evaluate project effectiveness and impact.

A total of 16 participants from Sudan and Ethiopia (11 from Sudan and 5 from Ethiopia) attended the training workshop. The participants were drawn from the community watershed project in Sudan and TBIWSP in Ethiopia.

The major topics covered in the training workshop include:

- Introduction to Basic Terminologies and Concept of Result Based Management
- Result Frameworks
- Logical framework Approach and Tools
- Building a Results-Based Monitoring and Evaluation System
- Results-Based work plan and reports for integrated watershed program
- Practical exercise and field visits on the application of result and process based monitoring and evaluation.

A contracted resource person together with ENTRO M&E Officer facilitated the training workshop. M&E reference materials and and a CD of slide presentations were distributed to the participants.

On the Job training on Soil and Water Conservation: A ten- day training workshop on Soil & Water Conservation was organized at Singa town (for theoretical sessions) and Jaldock village (practical exercise) of Dinder locality, Sudan from March 20 – 29, 2013. The training workshop on Soil and Water Conservation (SWC) has been intended to enhance the technical capacity of project staff as well as partner institutions involved in watershed management to undertake effective planning, monitoring & evaluation of soil and water conservation practices. The overall training was given with the intension of fulfilling the following specific objectives:

- Participants are familiarized with the design, layout and construction techniques of different soil & water conservation measures, understood activities to be integrated and hence can plan and supervise the entire implementation processes including maintenance,
- Enabled participants to have the required competence (skill, knowledge and attitude/confidence) to undertake backstopping and technical support to farmers and the community at large during actual implementation of those structures,
- Serves as a Training of trainers (TOT) and enables participants/trainees to deliver/cascade down similar trainings to the community,
- Provide opportunity to exchange ideas and experiences among participants with regard to integrated watershed management and other related issues.

A total of 24 participants comprising 7 Agricultural professionals, 5 Livestock/range specialists, 5 Foresters, 3 Water resource and design, 2 management staff and 2 NPCU staff have attended

the training. In addition, 40 farmers who were selected from Jaldock and Shabana villages have attended the practical sessions.

The overall training have been done in two major phases: the preparation phase and the implementation phase. During the preparation phase imperative steps have been taken in time. The major accomplishments made during this phase were; selection of trainers and trainees, identification of skill/knowledge gaps, selection of contents, preparation of training materials (manual, PowerPoint presentations, various formats, surveying equipments), selection of training sites and preparation of the necessary logistic (equipments and hand tools). After all those essential prerequisites, the actual training has been delivered as per the training schedule formulated and agreed. The actual training program again was divided into two major parts: A theoretical session lasting for the first 3 days (30% of the training duration) and the remaining 7 days (70%) were allocated for practical exercises (learning by doing) in the selected village/watersheds.

The major topics addressed in this training workshop include the following:

- Principles of Community Watershed Management
- Process of Soil Erosion and land degradation
- Physical and Biological Soil and Water Conservation Measures
- Gully prevention and Control
- Rain Water harvesting with Particular Focus to Soil Storage

Resource persons with extensive experience in Soil and Water Conservation were recruited to facilitate the training. A field guide manual was also prepared and distributed to the participants.

Rain water Harvesting & Utilization: A ten day training workshop on Rain Water harvesting & utilization was organized in Debre Tabor town of the Amhara Regional State, Ethiopia from April 9 – 19, 2013.The general objective of the training workshop on Rainwater harvesting was to contribute to sustainable land management efforts of the region and beyond. The specific objectives of the training include:

- Participants are familiarized with the design, layout and construction techniques of different rainwater harvesting methods and structures
- Provide effective technical training on planning, design, construction, and monitoring of RWH practices and systems for field technicians (Watershed Team members, experts Development Agents and Community Facilitators)
- Enabled participants to have the required competence (skill, knowledge and attitude/confidence) to provide backstopping and technical support to development agents, farmers and the community at large during actual implementation of those structures,
- Serves as a Training of Trainers (TOT) and enables participants/trainees to deliver/cascade down similar trainings to the development agents and community,
- Provide opportunity to exchange ideas and experiences among participants with regard to integrated watershed management and other related issues.

A total 28 natural resource experts drawn from Amhara Bureau of Agriculture (#12) and from 9 Zonal Agriculture Office (#16) attended the training workshop.

This 10 days technical training workshop on rainwater harvesting and utilization technique was organized in to in-house theoretical training for 3 days and practical training for the remaining 7 days. The major topics covered in the training workshop include the following:

- Introduction to rainwater harvesting: The concept, benefits, challenges and opportunities of rainwater harvesting systems
- Planning considerations on promoting rainwater harvesting systems: where to apply, when to apply, how to apply, selection criteria for multiple use, possible risks in developing and promotion of rainwater harvesting techniques, sustainability issues (financial, institutional, environments, technical and social, recommendation on feasible implementation approach, etc.
- Design of rainwater harvesting systems (RWH): technical components of the RWH systems/structures used as catchment, conveyance, filtration, storage, delivery (abstraction), utilization systems, system sizing that includes; catchment area, storage, rainfall data, demand and supply. Bill of quantity, material specification and estimation of costs for selected rainwater harvesting techniques
- Construction guideline for rainwater storage structures : general, cemented materials, plastic lined, etc
- Construction guideline and maintenance of selected rainwater harvesting techniques; (roof top rainwater harvesting system (10m3), underground hemispherical rainwater tank (50m3) and trapezoidal shape farm pond (84m3)
- Rainwater harvesting from seasonal rivers by constructing sand dams
- Groundwater development by manual well drilling techniques
- In-situ rainwater harvesting techniques
- Artificial recharge techniques to groundwater
- Water lifting devices

A resource person with extensive experience in Soil and Water Conservation was recruited to facilitate the training. A field guide manual was also prepared and distributed to the participants

- **Eastern Nile Planning Model (ENPM):**

Internship program: ENTRO internship program is envisaged to be useful to the interns by providing them an exposure to working in a regional institution, develop a regional perspective for their work, learn new tools, techniques, and methodologies, interactive with other regional and international staff/consultants/interns. It also contributes to the work of ENTRO in fostering improved cooperation on water resources development and management in the Eastern Nile, including work on information/analysis, institutional capacity-building, and investment facilitation.

The objectives of the internship program are following:

- Promote collaborative joint regional research program across EN Universities and access to public domain set of models, and Knowledge-products,

- Link National Academic Research Programs to address Key trans-boundary EN WR Development and Management issues ,
- Establish EN Community of Modelers and Planners,
- Establish a *Help Desk Services* at ENTRO and the EN outreach centers to support sharing and dissemination of Knowledge products,
- Balance the Knowledge Gaps and strengthen the capacity of the EN,
- Enhance synergy among the different National institutions, and
- Support the ultimate goal of common platform of Analytical and Knowledge Tools.

Three batches of Interns joined ENTRO, for duration of three months each, starting December 2011. The third batch of interns completed its internship program end of November 2012. Interns were nominated by ENPM focal persons from the EN universities. Participation to the program extended to have interns from most of EN universities and research institutes including South Sudan.

Interns were engaged in the development process of the following activities:

- Base line development of projects,
- Data collection, checking, and organizing,
- Development of Water Balance Modeling system;
- Participate in training programs to learn new tools, methodologies, or applications to build their capacity,
- Apply new techniques to an area of mutual interest to ENTRO and the Intern (e.g. data analysis, development of new knowledge products/maps, assisting in model development and application, documents preparation, etc.),
- Undertake basic literature review and documentation (e.g. summarizing documents, internet research, developing annotated bibliographies, developing basic content for ENTRO website, etc.),
- Produce tangible outputs at the end of the internship which are useful to ENTRO, and
- Facilitate ENTRO interactions with national-level institutions (e.g. Universities) and other partners.

Short-term Outcome 2.2: Stronger EN institutional architecture at regional level to identify, prepare and implement cooperative developments

- **Eastern Nile Planning Model (ENPM):**

The ENPM project has been instrumental in providing ENTRO with the enabling knowledge base, modelling tools, and professional networks and institutional capacity in order to better serve its member countries in their efforts to better develop, manage, and utilize the shared waters of the Nile Basin. This includes a comprehensive and well-organized knowledge base, including spatial information organized into thematic geo-databases. Also, this enables ENTRO to more effectively utilize studies conducted in the past (e.g. the Cooperative Regional Assessments) as well as other available global, regional, and national information.

The quality management and organization of the knowledge base has also made it possible to visualize this information in many different forms for publications and presentations (e.g. charts, maps, animations), develop input datasets as required for a wide variety of modelling tools, and

develop a range of thematic and sub-basin toolkits. A range of models has also been developed using the available knowledge base to test a variety of development and climate scenarios.

ENTRO has also built strong relationships with regional academic institutions and young modelling professionals through the internship programs. This has enabled ENTRO to develop credibility as a knowledge institution that has good access to knowledge, tools, and expertise on critical issues facing the Eastern Nile and be in a position of being a centre of excellence to provide knowledge and analytical helpdesk services to the region.

Short-term Outcome 3.2: Increased ENSAP cooperative investment projects identified and prepared for implementation

- **Eastern Nile Watershed Management (ENWM):**

Delineated and prioritized watershed investment projects in the Blue Nile sub-basin: This activity was conducted with financial input of ISP project. The task was done in two steps: delineation and prioritization. Delineation of sub-watersheds was done through document review and field assessment. A list of 4 projects (hotspots identified during the CRA study) was provided to the consultant. A delineation of each project was made into Watersheds of manageable size (i.e. 1,000 – 2,000 km^2). Key issues, challenges and potentials were identified for each of the four micro-watersheds based on the documents reviewed, field assessment (to collect additional data to augment the information available from document review) and stakeholders' consultation.

Main outputs of this task include:

- Main report summarizing the approach and methodology; review of project profiles and result of delineation of investment projects; and ranking and prioritizing of watershed investment projects

- Four documents in which each of the delineated investment projects are described in detail including their specific location (supported with maps), key issues, on-going programs, and key stakeholders.

Development of scaling up strategy for the watershed projects in the Eastern Nile: Significant achievements have been made since the implementation of pilot watershed projects began about three years ago. The innovative approaches (both in design and implementation) that build on previous experiences, choice of technologies that are people centered, and integration of monitoring and evaluation system to track progress and impact as well as modify design on time are the key features of watershed management in the pilot watershed projects.

On the other hand, watershed degradation in the Eastern Nile is wide spread and deep. The geographic coverage of the pilot watershed areas relative to the enormous task at hand is like a drop in the ocean. There is an urgent need to increase the pace of intervention many folds and thus a move from project and pilot site levels towards a long term program-based approach. One way of doing this is by stimulating and encouraging land users to adopt best practices and

approaches to watershed management. Scaling up of watershed projects requires a broader and longer-term commitment than simple technology dissemination. Watershed management efforts will thus remain islands of success unless these institutional elements can be replicated on a wider scale. However, adoption and scaling up of successful practices is faced with barriers. A number of critical factors contribute to the low level of adoption and scaling-up.

Its objective is to develop a strategy to scale-up best practices and approaches in watershed management, building on the lessons learned from implementation of on-going fast track projects and other experiences in the region, with the objective to promote sustainable land use cover bigger geographic areas in the Eastern Nile region. To this end, a detailed and comprehensive strategy document was produced on scaling up of best practices and approaches in watershed management in the EN.

Revision of annual work plan: The revision of the Annual Work Plan and budget for the period July 2012-June 2013 was made after assessing progress of planned activities done mid way in to the planning period, and taking in to account the positive development made at governance level regarding the unfreezing of regional activities. The revised plan by enlarge focused on rescheduling of some planned activities to the 2nd half of the planning period; adding few activities in light of country specific needs and availability of funds; and postponing others to the next planning period. The elements added in the new plan include organizing national training workshops based on country specific needs and preparation of watershed investment projects in an implementation ready format.

- **Eastern Nile Planning Model (ENPM):**

The ENPM project has helped ENTRO to transform into a credible center to provide regional knowledge and analytical services. ENTRO now has the enabling skills, knowledge base, modeling tools, networks, partnerships, and outreach mechanisms to be able to engage a wide variety of stakeholders to help them make more informed decisions on issues and options that have regional significance. The ENPM work has also benefitted other NBI activities (e.g. Nile DSS) and has helped to shape the next generation of projects (e.g. NCORE) for the NBI.

The ENPM project has had mixed successes. The project has contributed to develop excellent partnerships with Universities in the EN countries, helping Universities to establish better professional networks both within and across countries, and to partner with a number of ENTRO activities. The internship program established has been pioneering, helping a new generation of potential water professionals and leaders to acquire new skills, develop new regional collaborations, and contribute multi-sectoral perspectives to enhance ENTRO's knowledge and analytical services. The project has also helped improve national government capacity through provision of equipment and training. However, this has been severely constrained by the current status of regional cooperation in the EN.

Several World Bank meetings were conducted intermittently with ENPM project team to revise the procurement plan and provide support and advice in the ongoing development activities.

Technical meetings were conducted with the ENPM international consultants to follow up the development progress related to SWAT modeling tool and identify options for data availability need for model configuration and application.

- **Joint Multipurpose Project (JMP):**

Submission of ***Working Paper #1 Report:*** The 1st draft report was submitted and reviewed by JMP I, WB team and Panel of Independent Reviewers (IPoRs). Accordingly, the consultants incorporated all the comments received from the reviewers and submitted the Final Working paper #1 Report.

Submission of ***Working Paper #2 Report:*** The 1st draft report was submitted and reviewed by JMP I working team, WB team and Panel of Independent Reviewers (IPoRs). Accordingly, the consultants incorporated all the comments received from the reviewers and submitted the Final Working paper #2 Report.

- **Nile Cooperation for Results Project (NCORE):**

Strengthening the Knowledge Base and Analytical Framework for Eastern Nile Water Resources Planning and Management

Internalizing lessons from the experience of the EN Young Professional Program under ENPM, ENTRO decided to ensure a competitive procedure in the nomination of interns by EN Focal Universities. Applications for the program exceeded 60 in some countries; and interviews were conducted by Focal Universities to submit to ENTRO a short-list of 8 nominees for eventual selection of four candidates. From NCORE project support, a first batch of 16 Interns was recruited in June, 2013 (four from each EN country). Due consideration was made to ensure diversification of interns (gender, different government agencies and academic institutions)

The Interns were divided into four multi-country working groups: Flood Monitoring, Dam Safety, Multi-sector Investment Opportunities Assessment and Benefits of EN Cooperation.

Benefit of Cooperation Study and Configuration of Multi-Commodity Trade Model

A multi-country team of four Interns led by ENTRO Junior Water Resources Expert was tasked with advancing activities in the Benefits of EN Cooperation Study. A major task for the team was development of Multi-Commodity Trade Model for the EN Region with the goal of promoting regional economic integration. This effort is building on similar experience from other trans-boundary sub-basins (MEDUSA Model developed by Dr. Harsh for the Ganges River Basin in Asia). Significant progress was made by the team in the following respects:

- An excel based interface was developed for accessing relevant country based socio and macro economic data This include multi-sector data for different commodities including agriculture crops, energy related commodities, and existing and proposed transportation infrastructure that could potentially link the region. The interface enable users to better access and visualize data, conduct simple analysis aimed to identify and highlight the comparative advantage of each EN country and opportunities for trade among EN countries. Significant amount of input data were collated from different global web sites (total of 2600 Excel Spreadsheets) and made part of the interface with the intent to have such a tool disseminated on the web portal within the next few weeks.
- The team also developed supply and demand curves for potential commodities reflecting prospect for trade opportunities in the EN region.

- Excel Interface for customizing and writing the Multi-Commodity Trade GAM Code from within Visual-Basic Excel Environment and for the purpose of facilitating the input/output data using Excel Spreadsheets was developed.
- At this Stage ENTRO team is working on the final customization and configuration of the Multi-Commodity Trade Model.
- Parallel effort to document the activities under this task in a report is ongoing (Report Documentation of MCTM 70% complete) and anticipated to be finalized by 3rd week of August 2013.

Analytical Framework for EN Multi-Sector Opportunity Analysis

A multi-country team of four Interns led by the ENTRO Junior Water Resources Modeller is tasked with the development of analytical Framework for the EN Multi-Sector Opportunity Analysis. Significant progress was made by this team in the following tasks:

- Consolidation of the results of different water resources simulation and comparative analysis for a set of exogenous and endogenous water resources development scenarios in the EN. (60% Complete) with activities performed include the following

  - Running different models configured under the ENPM projects (Riverware, Deltares, Hec-Res-Sim, Mike-Basin/DSS, SWAT .etc) for different scenarios of interventions such as cascade of reservoirs on the Abbay/Blue Nile and study of downstream impacts of intervention (including implications of different filling scenarios);
  - Developing an Excel based interface (Dashboard) for better visualization of results and comparing the results for consistency purposes

  - Summarizing the findings of the simulation analysis to support the profiling and multi-criteria analysis to be undertaken under the MSIOA

- Selection and enhancement of ENMOS as analytical platform for economic valuation of multi-sector investments opportunities. Progress made on this task include the following

  - Further enhancement to ENMOS including refining system schematics and disaggregation to include all potential irrigation projects, diversion nodes, water supply nodes, reservoir nodes and new realities on ground (GERD, Merowe Dam, Rossaries Heightening etc.);

  - Updating water demand data, supply and demand ratings, costing data to reflect recent studies and outputs from Site-Specific-Studies (Mendaya and Beko-Abo), JMP1, ENIDS and other sources

- Developing and configuring Agro-Economic Model for the EN Countries to examine impacts of national and regional policy interventions on agricultural productivity, food security and efficient water Use (60% Complete)

- A report documenting the establishment of Analytical framework for the EN MSIOA is ongoing (50% complete) and anticipated to be delivered by end of August 2013.

Sustaining and Enhancing EN Flood Season Monitoring Program

Under the guidance and supervision of the Senior Water Resources Planner, and support from ENTRO GIS Specialist and IT Officer, a multi-country team of five interns was tasked with activities relating to the EN Flood Season Monitoring Program Key Achievements and progress to date include the following:

- Developing flood forecasting capabilities for Gambella Floodplain and pilot the operationalization of the forecast system as part of 2013 Flood Season Monitoring Program. The Gambella flood forecasting system capability includes ETA Weather Forecast Model, HEC-HMS Hydrological Model and HEC_RAS hydrodynamic approach to estimate flood depth at different stations. The results from HEC_RAS are then exported into HEC-Geo-RAS for the purpose of producing flood inundation maps. Coordination with local authority in Gambella was initiated and is on-going to obtain observed data to verify model predication capability.

- Through engagement of one Intern from Cairo University, effort was initiated to address flash flooding in Wade El-ariesh (Egypt) using the Hydro-beam model.

- Developing hydrological forecasting predication capability for the entire BAS sub-basin with the goal of integrating flood prone communities in Sobat sub-basin of South Sudan as part of the EN Flood Season Monitoring Program. This activity includes the engagement of one intern from South Sudan together with the support of senior intern from BAS Region in configuring the HEC-HMS Model to the BAS sub-basin. Coordination with the South Sudan Ministry of Water Resources was initiated and is ongoing to provide observed data for the purpose of model validation. g. The intent is to have pilot model validation during this flood season whenever observed data become available.

- ETA Model Predication forecast was operationalized with support from ENTRO GIS Specialist and daily rainfall forecast was produced.

- Lake Tana Model Forecast was operationalized by senior intern from Ministry of Energy and Water Resources (Ethiopia) tasked with producing daily forecast for Lake Tana floodplains and undertaking daily dissemination of forecasting message to the relevant agency in Ethiopia.

- Sudan FEWS is operationalized during this season with senior Intern from Ministry of Water Resources and Electricity of Sudan tasked with producing daily forecast report and dissemination of forecast message to relevant authority in Sudan.

- A Total of 5 releases of weekly flood bulletin were produced up to date and disseminated through both E-mail list and ENTRO Web-Portal.

- With support from ENTRO IT, a Web-based content section for EN Flood Season Monitoring Program was established with the overall goal of having an EN flood web-based forum where key relevant stakeholders in the EN countries discuss and communicate issues pertaining to flooding in the EN.

Capacity Building/Training

The first training package planned by ENTRO focused on Water System Modelling using the EN customized River ware. A week-long training was organized in Egypt, Ethiopia and Sudan, while training in South Sudan is planned for October 2013. The organization of this training was arranged in close collaboration with the consultant (River ware) and EN Universities. Riverware agreed to deliver the training without charging fees, while ENTRO covered only travel and daily subsistence costs of the trainers. EN Universities agreed to cover costs associated with national participants, training venue and other logistics.

Furthermore, to build ENTRO in-house capacity and promote knowledge and experience sharing with Interns, a number of consultation and training sessions were conducted on GAMS optimization.

Promoting Sustainable Development and Growth in the Eastern Nile :

Progress under Sub-Component 3.b. was minimal in advancing activities concerning watershed management. This was mainly due to inability to organize consultations with EN countries on the geographical focus of activities and the modality for implementation. Consultations with ENSAPT Chair are ongoing to organize a governance meeting before end of August 2013 to provide guidance on implementation of watershed management activities.

Under this sub-component, there are three indicators to measure progress. Some progresses have been registered towards achieving the two indicators: There was no significant progress related to the third indicator on Watershed Management.

Dam Safety

An Individual Consultant was competitively selected to advance work in Dam Safety supported by a multi-country team of four Interns. The Consultant sensitized the team on issues of EN dam safety practice, dam safety management basic concepts, and traditional and risk based approach to dam safety analysis and techniques. The first task of the team was to develop a Dam Safety Toolkit to create awareness on key issues relating to dam safety and strengthen EN capacities on critical dam safety issues. Ongoing activities include the following

- Conducting one-day training on dam safety standards with the support of International Dam Safety expert

- Synthesis of International dam safety standard as part of the excel-based dam safety tool-kit.
- Development of customized templates for classification and categorization of different modes of dam failure and vulnerability to various types of risk associated with dam failure.
- Development of customized sheets/templates for quantifying breach discharge and estimating PMF with use cases from EN region.
- Developing customized sheets for stability analysis of dams.
- Developing excel based interface for accessing different data sets pertaining to dams in the EN region and customized sheets that support and facilitate the inspection and monitoring of hydraulic, structural and geotechnical safety of existing dams.
- Organization of half day training session at ENTRO with the support of International Dam Safety expert on Potential Failure Mode Analysis (PFMA) and dam safety management practice in Africa. All 16 Interns and ENTRO staff attended the training.

It is anticipated that the first release of the Dam safety tool-kit will be completed and disseminated by October 2013 after revised by the Dam Safety consultant

Integrating Environment and Social Issues & communication

DEVELOPMENT COMMUNICATION:

The Social Development and Communication Unit has exerted efforts to communicate ENSAP results (program communication), to encourage a range of riparian stakeholders to support Eastern Nile cooperation (advocacy) and despite the challenges posed by the hydropolitics of the region to project a positive image of ENSAP/NBI across the region (corporate communication) and to build internal resiliency through improved intra-NBI communication, including through significant contribution to firming up project completion reports. In all these efforts, to the extent possible, coordination has been made with Nile-Sec and NELSAP in the spirit of promoting One-NBI. The following are the key activities/outputs for the reporting period.

Regional Nile Day 2013 Celebration, Bahr Dar, Ethiopia: The Regional Nile Day is an annual event that is attracting the attention of a range of basin stakeholders, including regional and international media. NBI partially funds Regional Nile Day Celebrations. Each year a member country hosts Nile Day. For 2013 Ethiopia volunteered to host the day and bear a significant part of the cost. This year Ethiopia decided to hold the event outside the capital, in Bahrdar where a number of NBI projects are demonstrating results on the ground (e.g. watershed management, flood protection and early warning, irrigation and drainage, Ethiopia-Sudan power interconnection). The Social Development and Communication Unit of ENTRO, representing NBI, was responsible for co-organizing the event. Activities included: work plan and budget formulation; resource mobilization strategy; logistics planning, participant identification, press coverage and media events; visibility campaign (panel discussion, public marching, tree planting, t-shirts, caps, etc.), coordination, NBI project site visit/showcasing. This year's event had drawing particular attention and provided attention to demonstrate to the world that NBI is still relevant to basin countries, post-CFA signing, post-GERD hydropolitical stances notwithstanding.

Press Releases, Fact Sheets, web-portal development: Media engagement is one of the most important opportunities to profile NBI/ENTRO. SDCU routinely utilizes major project

milestones for this purpose. *JMP-1 ID Studies*-Fact Sheet has been prepared to update stakeholders on changes/progress to date. A Statement (to be yet released) on JMP 1-ID Studies Completion, highlighting the significance of the two *Working Papers*, along with their limitations is being release. *The Baro Akobo Sobat Grant Signing Ceremony* Press Release and media engagement was utilized the relevance of ENSAP particularly to the newly joined member state of South Sudan. This has been also covered in internal communication - NBI Nile News. Similarly the *NCORE Launch* Workshop has been provided wider press release and coverage. In addition the SDCU has been engaged in the **ENTRO web portal development** – and regularly informed the consultation with consultants from communication and public access vantage i.e. to make the website attractive and user-friendly for easy navigation.

Dissemination of NBI and Watershed Documentaries: NBI/ENSAP achievements also need to be disseminated across the water professional community. For this reason the Internet has been used for increased visibility. The Internet Water Channel has been of particular relevance. During the reporting period ENTRO –produced documentaries (***Risking the River:*** Imperatives of Nile Cooperation and ***Watershed Project Documentaries***) along with SDCU presentation on JMP-1 ID ***Study Stakeholder Involvement and Communication Strategy*** have had huge hits – a total of nearly 7000- on the web (2655,2089,2150 hits respectively).

Finalization of NBI 2013-17 Communication and Stakeholder Engagement Strategy; ENTRO SDCU took active part in the finalization of this document which clearly articulated the objectives and methods of conducting effective communication and stakeholder engagement to support realization of the NBI 2012-2016 strategic plan. The 55-page document has identified key stakeholders, methods of engagement, key messages vis-à-vis identified problems and stakeholders impacting Nile Basin cooperation, choice of communication medium, crisis communication, and a range of additional content. The Stakeholder engagement part enunciates NBI's adopted stakeholder participation strategy and key principles to be followed.

SOCIAL DEVELOPMENT:

NBI-Social and Environmental Policy, Climate Change Strategy, Wetlands Strategy: The SDCU has actively taken part in and contributed to the formulation of NBI's Environment and Social Policy; to the NBI Climate Change and Wetlands Strategies.

ENSAP Social Management Guidance: Though the consultant had completed the task, the work required significant editing. SDCU has edited and completed ENSAP Social Management Guidance (SMG) and availed it in print –ready format and will form one of the key reference documents for planned ENSAP capacity building programs in the next half year. The SMG will complement the Environment Management Guidance (EMG) to establish an ENSAP Environment and Social Management Guidance to provide upstream guidance (policy, plan, and program level) on trans-boundary project preparation.

JMP-1 ID Studies: Though the work has been completed much remained to finalize and close the project. SDCU has provided support in consultant supervision and follow up, review and critique of consultant reports, and in Completion Report write-up. SDCU has contributed to the enhancement of the JMP-1 ID Studies thru Revision of 2 Working Papers (#1: Environmental and Social perspectives on Blue Nile Multipurpose Project Development, #2: Strategic Options Assessment of Blue Nile Multipurpose Project Development)

Capacity Building in Social Development: SDCU Senior Social Development Officer facilitated capacity building workshop with a consultant for EN Watershed Project (Sudan) Implementation team which had problems managing implementation related conflicts among pastoralist, reserved Dinder Game Park, rainfed commercial farmers, small farmers and the Project. SDCU guided the training in how to mediate the conflict and in how to incorporate on social and environment management in project implementation for the future.

3.2 Cumulative Results (Results including achievements in the previous reporting periods):

Short-term outcome 1.2: Increased dialogue among EN governments

Eastern Nile Watershed Management Project:

Establishment and meeting of Regional Consultative Group for Watershed: A regional consultative group was established at the end of June 2009 with the objective to review the annual work plan and budget before formally submitted to ENTRO management, deliberate on capacity needs and agree upon thematic areas including time and venue. Since its establishment, the group met twice (July 2009 and January 2010 in Ethiopia & Egypt respectively). It enabled to establish common understanding of project activities, helped in improving information exchange and communication among the various projects implemented nationally, contributed in trust and confidence building and enhanced regional coordination and integration.

Short-term outcome 1.3: Increased ENSAP dialogue and partnership with civil society, local communities, private sector and development partners

Eastern Nile Watershed Management:

Launch workshop for the Eastern Nile Watershed Project: A launch workshop for the project was conducted from 6-7 January 2010 in Khartoum, Sudan. The workshop was jointly organized by the World Bank, Ministry of Irrigation and Water resources, Sudan and ENTRO. Participants were drawn from the government and civil organizations from Sudan, World Bank staff, ENTRO, and national coordinators for watershed from Egypt and Ethiopia. ENTRO was represented by the Executive Director and the Regional Coordinator for Watershed. The Regional Coordinator made presentation on the progress of the project so far and the planned activities until the end of June, 2010.

Joint Multipurpose Program:

The JMP I ID Kick-off workshop, broad consultation, was convened 30-31 January 2010 in Khartoum, Sudan. Phase I inception report review regional workshop was also held 27-28 March 2010 in Addis Ababa, Ethiopia.

Social Development and Communication Office (SDCU):

Stakeholder consultation: Due to the very nature of ENSAP project preparation, engagement is limited to critical secondary stakeholders. SDCU has provided critical input to IDEN project stakeholder consultation particularly to the JMP, both during the launch and JMP-1 ID stages. SDCU articulated the first stakeholder consultation and communication strategy for the JMP launch phase, on the basis of which the web-based DaNSS database was designed (the template of which was adopted for the entire NBI), all consultations of the launch phase were properly documented (over 35 of them) and a JMP-launch phase study-tour visit to the Senegal basin documented. For the JMP-1 ID Studies, SDCU formulated a detailed strategy document (SICAS), whose implementation plan was also prepared by JMP1 ID consultant. SDCU facilitated the kick of meeting of the JMP-1 ID studies, in which a range of secondary stakeholders have been consulted.

Networking with regional/international research and academic institutions: SDCU has supported M.Sc. and Ph.D. level researches [from the NB region and beyond] in the economic, institutional, hydrology, water resources management, watershed management, social, international relations, etc. As much as possible, effort has been made to make ENSAP beneficiary of these ongoing research outputs. The collaboration with IWMI and UNESCO-ICHE were cases in point.

Engaging Civil Society: By way of sustaining the gains made by SVP-CBSI, SDCU has maintained working relationship with the Nile Basin Discourse Forum (NBDF), and through its affiliated organizations at national levels such as environmental and women's groups. SDCU has been engaged in a series of workshops with civil societies that include media, bar association, academia and others, and tried to enlighten participants on Nile cooperation and challenges. This has significantly helped in creating awareness on the state of affairs around cooperation and civil society's role.

Networking with media: With the Nile Media Network, working relationship has been maintained, since the media provided important channels to conduct external and advocacy communications targeting the broader EN stakeholders.

Development communication- In order to enhance critical stakeholder understanding of the ENSAP mission and objectives in particular and that of NBI in general, a robust development communication is a must. Increasing ENSAP visibility in the global water resources planning, development and management landscape is also critical. Towards this end, to a varying degree of success, effort has been made to produce development communication materials, press releases, displays and other communication products.

Short-term outcome 2.1: Stronger EN institutional architecture at National level to identify, prepare and implement cooperative developments

Eastern Nile Watershed Management Project:

Experience exchange visit: Five international experience visits were organized and conducted (India from 8-17 March 2010; Ethiopia from 26 March-4 April 2011; Ruanda from 1-9 July 2011; Tanzania from 13-22 May 2012), China from 15 June to 04 July 2013. The exposure visits have provided insight into the different approaches and tools used in planning and monitoring of

watershed projects, exposed participants to the different types of interventions/technologies applied for sustainable watershed management, and to the various enabling environments (policies and strategies, legal aspects, institutions arrangements). By and large, it enabled participants to draw lessons on best practices and adopt in their own project area.

Implementation review and support mission: Six Review and Implementation Support Missions (RISM), comprising of funding and implementing agencies, were carried out in 2010, 2011 and 2012(four in 2010 and one each in 2011 and 2012). The RISM is undertaken biannually with the objective to review the Project's overall implementation progress. At the end of each mission, the team prepares Aide Memoire that summarizes the findings, recommendations and next steps through a formal wrap-up meeting. The series of missions were instrumental to expedite execution of projects' components and activities and also enabled projects to achieve significant outputs and outcomes.

Mid-Term Review: A Joint team of experts comprised World Bank, Govt. of Finland (GoF), the project staff of the Federal and Regional governments as well as representatives from ENTRO conducted Mid-Term Review (MTR) of the Tana-Beles Integrated Water Resource Development Project from 25 April-06 May 2011. The Fast track watershed is a major component of this project.

Training workshop on IWSM: A week long training workshop on Integrated Watershed Management was organized in Bahir dar, Ethiopia from 09-15November 2009. Its objective was to enhance the technical capacity of institutions involved in watershed management so that they can undertake effective planning, monitoring & evaluation of watershed management interventions. A total of 26 participants drawn from Egypt, Ethiopia, and Sudan attended the training workshop. The training enabled participants to have adequate conceptual understanding and acquire the necessary skills in the design and management of watershed development projects and also enhanced their capacity in managing watershed development activities efficiently and effectively. This has been, practically, reflected in the satisfactory implementation performance of fast track projects at national level. Two consultation workshops conducted in 2012 and 2013(Social Safeguards and conflict management workshop and Environmental and social management workshop. Four capacity building trainings conducted in 2012 and 2013 (Training workshop on design and construction of drainage control structures, Training workshop on Results and Process Based Monitoring and Evaluation of watershed projects, On the Job training on Soil and Water Conservation, and training on Rain water Harvesting & Utilization.

Road map prepared for regional capacity building: The capacity building module was prepared that will serve as a road map to guide the regional capacity building activities over the life time of the project. The module focuses on three main activities: training workshop with duration of 8-10 days; a workshop with duration of 2-4 days and an exposure visit of up to 15 days. Under each main activity, thematic areas and their content are defined and a guide developed to selecting participants (target groups) for each of the main activity.

Short-term outcome 3.1: Increased Integration of gender, social development and environmental dimensions in ENSAP

Eastern Nile Watershed Management:

*Workshop on Watershed and Climate Change***:** The workshop was organized from 24-26 January 2010 in El-Sukhni, Egypt and attended by 26 participants from the three EN countries and ENTRO. It focused on the critical role that watershed management shall play in climate adaptation strategy at national, regional and even global levels.

National workshop on Watershed Management & Conflict Transformation: This workshop was organized from 01-04 October 2011 in Khartoum, Sudan and attended by 21 participants drawn from the three Local Implementation Units (Lower Atbara, Dindir and Ingasena LIUs) and National Project Coordination Unit (Khartoum office). The workshop focused on providing conceptual background to natural resources based conflict; reviewing experiences within and outside the Eastern Nile basin through presentation of case studies and assesses their implication for the design of watershed projects in the Eastern Nile basin. The discussion was also enriched by participants from the three LIUs.

The two workshops contributed in creating awareness, enhancing knowledge and experience, and increased the technical capacity of participating institutions in developing strategies and plans to mitigate impacts of climate change.

Social Development and Communication Unit:

Overall cumulative result is the continued institutionalization and mainstreaming of social development in ENSAP strategies, plans and project preparation. SDCU organized regional social development capacity building workshops which have enabled ENTRO technical staff, particularly the IDEN project regional coordinators, appreciate and actively seek social development input into their projects to ensure their social sustainability.

Short-term outcome 3.2: Increased ENSAP cooperative investment projects prepared for implementation with finance and implementation arrangements in place; fast track projects implemented and new projects identified

Eastern Nile Watershed Management:

Since 2004, the ENWSM Project has been undertaking two parallel activities which have delivered two key results:

(a) *A Cooperative Regional Assessment* (CRA) – An agreed process and tool of the three riparian – which through a "without-borders" transboundary analysis of the entire EN and sub-basins established the baseline and characterized the watershed system. Through a distributive analysis,

worked out the environmental, social and economic distribution among the three EN countries of the positive and negative effects that will impact upon watershed management interventions and finally through the cooperative mechanism analysis identified the institutional requirements and implications for a basin wide watershed intervention. The CRA process, apart from providing a technical deliberation consultation platform for the three countries, has also been a confidence building-cum-capacity/knowledge building mechanism which has imprinted a "watershed perspective" in the three countries.

(b) *Fast Track Projects* – A key outcome of the CRA has been the design of long term watershed program for the Eastern Nile, which identified critical hotspots and 13 investment projects for national implementation, which are of special value when viewed in the context of large scale projects such as the Joint Multipurpose Program. Currently, the following watershed management projects are under implementation in the three countries: Upper Rib, Upper Gumera, and Jemma (Ethiopia); Dindir, Ingasena, Lower Atbara, Lau (Sudan) and Lake Nasser-Nubia (Egypt)**.**

Establishment of Basin wide sediment and water quality monitoring: The basin-wide erosion, sediment & water quality monitoring framework is envisaged to establish a system within ENTRO to systematically collate and store relevant data and information for effective watershed management planning, monitoring, evaluation and undertaking environmental, social and economic impact studies. The monitoring system will establish a long-term coordinated system for monitoring of erosion and erosion control; sediment loads and land cover change at various catchment scales as well as assessment of water quality parameters at key locations.

This activity was planned to be carried out in two phases:

Phase I: Review of existing situation: The phase I study (review of existing situation) was completed in January 2011. In this phase, a basin-wide comprehensive assessment of on-going sediment & water quality monitoring has been carried out, where the existing situation has been reviewed; gaps and follow-up activities were identified.

Phase II: Design of basin-wide sediment and water quality monitoring system framework: It was finalized during the reporting period. This activity produced a framework for design of long term sediment and water quality monitoring system and prepared a guideline for harmonization of standards and methods of data collection and quality check.

Delineation and prioritization of watershed investment projects: This activity was conducted with financial input of ISP project. The task was done in two steps: delineation and prioritization. Delineation of sub-watersheds was done through document review and field assessment. A list of 10 projects (hotspots identified during the CRA study) was provided to the consultant. A delineation of each project was made into Watersheds of manageable size (i.e. 1,000 – 2,000 km2). Key issues, challenges and potentials for each of the ten micro-watersheds were identified through document review, field assessment (to collect additional data to augment the information available from document review), and stakeholders' consultation.

Main outputs of this task include:

- main report summarizing the approach and methodology; review of project profiles and result of delineation of investment projects; and ranking and prioritizing of watershed investment projects,

- Ten documents in which each of the delineated investment projects are described in detail including their specific location (supported with maps), key issues, ongoing programs, and key stakeholders.
- *Development of scaling up strategy for the watershed projects in the Eastern Nile:* Scaling up of watershed projects requires a broader and longer-term commitment than simple technology dissemination. Watershed management efforts will thus remain islands of success unless these institutional elements can be replicated on a wider scale. However, adoption and scaling up of successful practices is faced with barriers. A number of critical factors contribute to the low level of adoption and scaling-up.

  Its objective is to develop a strategy to scale-up best practices and approaches in watershed management, building on the lessons learned from implementation of on-going fast track projects and other experiences in the region, with the objective to promote sustainable land use cover bigger geographic areas in the Eastern Nile region. To this end, a detailed and comprehensive strategy document was produced on scaling up of best practices and approaches in watershed management in the EN.

Joint Multipurpose Program:

Since the landmark ENCOM decision of February 2005 which launched the JMP with the specific purpose of "identifying and preparing a major initial project, within a broader multipurpose program, to demonstrate the benefits of a cooperative approach to the management and development of Eastern Nile, the project has delivered the following significant results: (a) successfully completed the JMP Launch phase, which resulted in information and analysis including: the scoping study, thematic studies on financing, implementation and institutional-legal arrangements; institutional arrangements(the establishment of working groups); wide ranging consultation activities and the broad definition of the development space and components of the JMP-1 (b) succeeded to get the go ahead from ENCOM to proceed to the current Identification Studies phase. The ongoing-Identification Studies is concluding the Phase 1 Studies-Strategic Social and Environmental Assessment and about to proceed onto the next phase of cascade studies.

Phase I draft inception report and SICAS final implementation plan report were submitted by the consultant. With regard to the project staff, Regional project coordinator, Hydropower expert and Social development and communication specialist have been recruited. Two ToRs for Regional Economist and Financial analyst were finalized and have got no objection from WB to recruit individual consultants as a technical adviser. Similarly, the ToR for international technical adviser for the position of Environmental Specialist was finalized and has got no objection from WB to proceed the recruitment process.

The revised version of the Draft SSEA Stage I Report (Third version) was submitted on 11th April 2011. The overall conclusion of the review on the first and second version draft SSEA stage I report shows that the reports were not in an acceptable standard and quality as a draft report for distribution to key stakeholders and to serve as basic document for consultation among countries. A technical meeting was held with the consultant to discuss on the consolidated comments on 13th and 14th January 2011. Accordingly, as per the comments, the consultant had submitted the draft (3rd version) SSEA stage I report on 11 April 2011.

The 3rd version SSEA Stage I Report was shared with the Panel of Reviewers and WB team members and not accepted as a drift report, since it didn't meet the required quality. In December, 2011 the consultant had submitted the 4th version and accordingly reviewed and still lacks incorporating the comments given in the 3rd version.

***Social Development and Communication Unit (SDCU)*:**

Direct social development input to ENSAP IDEN project design and preparation through participation in workshops, review of and feedback into project consultant documents (inception, draft and final reports) has supported entrench the culture of consultation in ENSAP. SDCU regular participation in reconnaissance studies, project monitoring, ENTRO strategic plan formulation, in the (re)design of ENTRO organizational structure and institutional development, and management meetings etc. has cumulatively contributed to the effective functioning of the different ENSAP organs, foremost ENTRO.

Begun through the generous support of DFID within ENTRO, the cumulative result here is the increasing institutionalization and mainstreaming of the social development agenda in ENSAP project preparation and institutional development. A major evidence of this is that social development has been made an integral, cross-cutting function of ENSAP, with its own unit, enjoying all round support by management and regional project coordinators.

3.3. Sustainability of Results:

The various watershed management interventions accomplished in the EN countries are very much relevant to the ongoing activities at national level and will be put immediately in to practice. In addition, various capacity building trainings and workshops have been facilitated at national level to strengthen their implementation capacity. All these efforts have added value to sustain the gains achieved so far.

The ENPM project has established a comprehensive knowledge base, developed a number of analytical tools and reaching out to interested stakeholders (a successful internship program). These achievements strengthen ENTRO's role as a regional knowledge services provider. The technical capacity created at ENTRO associated with the above, and the approval of NCORE project will sustain the achievements both technically and financially.

4. Project Management:

ENTRO has continued its considerable effort in coordination and management of ENSAP projects with strong team-spirit and collaboration within ENSAP projects and other crosscutting functional units. ENTRO management was closely following the implementation process of each ENSAP project through the review of periodic progress reports. Although, it was unable to implement regional activities as per the planned schedule, because of the current situation in the NBI, ENTRO devised alternative strategy and implemented regional activities separately at national level, as per the countries specific needs, in consultation with national project coordinators of the EN countries. In addition, ENTRO initiated and implemented internship program, which was successful, with some of the EN Universities as a solution measure to run planned interventions.

5. Program/Project Expenditures:

6. Major Challenges & Constraints and Mitigation strategies applied:

The major challenge for ENWM project was inability to conduct the planned regional training workshops because of the freezing of regional activities. Until the current situation is altered (which we expect will happen soon), ENTRO has devised an interim arrangement: undertaking capacity building activities at national level based on specific project needs with a prime objective of expediting implementation of national projects effectively and efficiently.

7. Lessons Learned and Recommendations:

Over the last five years the watershed project has enjoyed a very close working relationship with the national offices associated with watershed management through consultation, information & experience sharing and liaisoning at regional and national level. This good communication has been maintained during this reporting period as well and contributed for smooth project implementation progress relatively, even during the difficult time in the EN. This was instrumental to implement the planned activities within the planned time schedule and budget and to the satisfaction of the project stakeholders. This has to be sustained and also applied to other ENTRO projects.

For a knowledge-driven project such as the ENPM, it was useful to involve academia. The ENPM project had proposed to have close working relationships with one focal University in each of the three EN Countries (Addis Ababa University, Khartoum University, and Cairo University). After initial interactions with these Universities and understanding their strong interest to work together on technical issues relating to the Eastern Nile, ENTRO decided to expand this network to include all the key technical Universities in the EN countries through these three focal Universities. This has resulted in unexpected benefits in the form of improved interaction of technical Universities within the EN countries, as well as drawing from a wide pool of candidates for ENTRO internships.

For effective communication of complex issues in the Eastern Nile, it is critical that information should be communicated in customized ways to different key stakeholders. A lesson in the ENPM implementation is the effort to develop a range of knowledge products to help better interface with each stakeholder group. Interactive visualization products were developed to help different types of stakeholders interact at their pace and interest. For those more technically inclined, a range of innovative knowledge products were developed that could be used both with and without specialized software.