



ENTRO  
**NILE BASIN INITIATIVE**  
INITIATIVE DU BASSIN DU NIL

# Annual Report

July 2015 – June 2016



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## Acronyms

AfDB	-	African Development Bank
AWf	-	African Water Facility
BAS-MWRDS	-	Baro-Akobo-Sobat Multipurpose Water Resources Development Study
CIWA	-	Cooperation in International Waters In Africa
EAPP	-	Eastern Africa Power Pool
ENCOM	-	Easten Nile Council of Ministers
ENMOS	-	Eastern Nile Multipurpose Options Scoping
ENSAP	-	Eastern Nile Subsidiary Action Program
ENSAPT	-	Eastern Nile Subsidiary Action Program Team
ENTRO	-	Eastern Nile Technical Regional Office
ENWM	-	Eastern Nile Watershed Management
GEF	-	Global Environmental Facility
ICH	-	International Center for Hydropower
ISM	-	Implementation Support Mission
ICOLD	-	International Commission on Large Dams
MSIOA	-	Multi Sector Investment Opportunity Analysis
NBD	-	Nile Basin Discourse
NB_DSS	-	Nile Basin Decission Support System
NBTF	-	Nile Basin Trust Fund
NCORE	-	Nile Cooperation for Results
NEPAD-IPPF-	-	New Partnership for African Development - Infrastructure Projects Preparation Facility
OSI	-	One System Inventory
PCR	-	Project Completion Report
PIT	-	Project Implementation Team
RTWG	-	Regional Technical Working Group
SDCU	-	Social Development and Communication Unit
SLMP	-	Sustainable Land Management Peogram
SSEA	-	Strategic Social and Environmental Assessment
TOR	-	Terms of Reference
WRF	-	Weather Research and Forecast

## **Executive Summary**

This report covers ENTRO's 2015/16 diverse set of activities and results thereof, along with the challenges met and overcome and the resources expended. Following are the highlights.

### **Investment Project Identification and Preparation**

The Baro Akobo Sobat Multipurpose Water Resources Development Study Project has made the most visible progress during this reporting period, advancing from inception phase to the scoping and baseline and SSEA Framework and short-term project identification phases. These phases were accompanied by strong regional consultations, which were critical to incorporate priority social development concerns (e.g. poverty, gender) and environment as well as country priorities. Each phase had its own deliverables.

The EN Watershed Management Project also undertook the first ever EN basin wide Consultative workshop on the framework for the establishment of basin wide sediment and water quality monitoring. It is also during this year that the Watershed Management Project, despite the immense work remaining in terms of scaling up, had to close. A Project Completion Report (PCR) has been submitted. The EN Multisectoral Investment Opportunity Analysis had identified and prioritized 13 investment projects which need to be packaged in a format suitable for resource mobilization. Work on the technical write up has begun.

### **Resource Mobilization**

Resource mobilization has been perhaps the most prominent task ENTRO expended time and energy. For instance, the Netherlands, Finland, NORAD, GEF-WB, CIWA-WB, AfDB, DFID, AFD, EU-GIZ all have been approached. Consequently CIWA-WB was able to extend additional funding of a quarter million USD and EU-GIZ pledged to support in the tune of 5.5 million USD for a duration ranging from 18 months to four years.

## **Collaboration and Networking**

ENTRO has been working hard toward leveraging capacities and resources by networking and collaborating with relevant institutions. A number of MOUs have been signed to promote this agenda. Examples include research MOUs with IFPRI (facilitated thru Center for Development Research (ZEF) of Bonn University) and with ITT (Institute of Technology and Resource Management in the Tropics and Subtropics). The research is to support an Eastern Nile food-water-energy nexus Ph.D. research and capacity strengthening and communication in research. ENTRO has also been supporting and benefiting from Ph.D. research from Technical University of Munich on Blue Nile sediment analysis. Another MOU was signed with NBD (Nile Basin Discourse) to support grassroots stakeholder consultation for the BAS Project.

ENTRO has also hosted a number of researchers from: McGill, Canada; Addis Ababa University; Kings College, UK; and EU.

## **Institutional Capacity building, stakeholder engagement and communication**

ENTRO has provided one of its functions – secretariat and facilitation support – to ENCOM 29<sup>th</sup> and ENSAPT 30<sup>th</sup> Meetings which enabled timely decisions that supported ENTRO achieve planned objectives.

ENTRO has facilitated the establishment of National Dam Safety Units in each of the three member countries, which will be of critical relevance in the coming years given ENSAP plans to institutionalize dam safety and coordination of operations.

The internship program has conducted the 5<sup>th</sup> and 6<sup>th</sup> batches. This program, apart from bringing together young EN water resources professionals, has also benefited in generating real time flood forecasting and bulletins.

ENTRO has striven to enhance its visibility thru taking part in and organizing the annual Regional and National Nile Day Celebrations respectively. ENTRO also organized other events specifically designed for improving ENTRO's visibility at national level. ENTRO has also prepared internal (e.g. Nile-Flow) and external (Nile Story; Benefits of Nile Cooperation – a 15 year retrospective) communication materials in addition working to

improve its website –design, content and accessibility. Its internet accessible documentaries have recorded over 30,000 hits so far.

ENTRO still puts strong value and emphasis on engaging its stakeholders. During the reporting period, over 542 people have been directly engaged thru training and capacity building workshops, study exchange visits, and project review workshops.

### **Financial Expenditure**

The budget utilization for the reporting period has been 65%. Out of a total of US\$ 3.08 million annual budget US\$ 1.99 million was utilized. The variance is explainable in terms of time lag between delivery of particularly consultant phase-specific consultant reports and effecting of payment. In other words, a large amount of Accounts Payable is the major explanation for the apparently low budget utilization.

### **Challenges**

A major challenge is still availability of adequate funding, particularly, to support cooperative project identification, preparation and implementation. For example, four implementation ready watershed management projects prepared at a cost of over a quarter million USD are still on shelf. Another challenge is that two important positions – communication and environment specialists – are still vacant.

# 1. Background

Program Standard Data	
Program Name	Eastern Nile Subsidiary Action Program (ENSAP)
Ongoing Projects	Eastern Nile Watershed Management (ENWM)-closed as of end of Dec 2015, Nile Cooperation for Results (NCORE), and Baro - Akobo - Sobat Multi-Purpose Water Resources Development Study (BASMP)
Program Partners:	Owners: The Governments of Egypt, Ethiopia, South Sudan and Sudan Development Partners: GEF-WB, AfDB (African Water Facility, NEPAD -IPPF), WB-CIWA, EU, GIZ, Key Stakeholders: local communities in the EN Basin; relevant government agencies, International Organizations, NGOs, Civil society, private sector, academic and research institutions; media.
Program Duration	Continuous, with individual projects of varying start and closing dates (two to three-years duration on average)
Total Current Year Program Budget	July 2015 to June 2016 is USD 3.08 million
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	Reversal of environmental degradation Promotion of economic growth, Increased regional cooperation and integration Enhanced regional peace and security

## Milestones in the reporting period

- Eastern Nile Watershed Management (ENWM) project closed as of 31<sup>st</sup> December 2015
- Mid-Term Review of BAS project conducted (12<sup>th</sup>-21<sup>st</sup> August 2015).
- EU-GIZ Project Appraisal Mission (October 2015)

## **Report Background**

This Annual Report covers the period July 2015-June 2016. It is prepared in line with the NBI Results-Based Reporting System, which focuses on key results. Also, the basis for the report is the annual work plan and budget approved for the period. The report highlights the performance of three ENSAP projects (ENWM, BAS-MWRDS, and NCORE) and activities financed by Country Contribution, which include governance meetings; ENSAP resource mobilization efforts; Program Visibility and consultation workshops; collaboration and networking with partnering institutions; Corporate and Program communication; Website and Webportal enhancement. Further, the Annual Report contains the following sections: background information, internal and external contexts of implementation, program achievements (non financial & financial), major challenges and constraints, mitigation strategies.

## **2. Context as it affected Project implementation**

### **2.1 Internal Context**

ENTRO had to rely on in-house, strong teamwork to maximize best use of its staff and minimize hiring of external assistance. This effort toward self-reliance has made significant contribution toward efficient implementation. For instance, wherever possible, ENTRO senior staff has been preparing Regional training and capacity building modules for National Focal Points and national media, with little or no external support. These include, for example, those related to watershed management; social development; development communication; water diplomacy; natural resources based conflict management; social and environmental safeguards; strategic social and environmental assessment modules. Team work has been more prominent in ENTRO's effort to mobilize resources.

During this reporting period sustaining country contribution to ENTRO's core costs has been facing more serious challenges. It is to be recalled that ENSAP governance in its 28<sup>th</sup> Meeting had resolved, among others, to shoulder the arrears of Egypt among the three member countries. This bold move of ENSAP governance has been hailed as exemplary by the development partner community. At present, however, partly due to the escalating decline of world oil prices and shrinking revenue thereof, and partly due to the insecurity



and government instability, South Sudan has been unable to meet its annual contribution toward covering ENTRO core costs. This has put ENTRO once again in precarious situation, and if continues farther into the future may as well be a threat factor for its financial sustainability.

## **2.2 External Context**

Development partners have been extending invaluable support in project implementation. For example, NCORE Planned milestones have been reviewed, every six months jointly with World Bank implementation support mission and ENTRO. The 5th joint WB –ENTRO Implementation Support Mission was held at ENTRO on February 2016.

Egypt has continued on its freeze in NBI/ENSAP. However, this does not mean that Egypt is no longer engaged in EN. It is still involved, though outside ENSAP, trilaterally with Ethiopia and Sudan on GERD. Egypt still attends Nile-Com Meetings and takes part in Regional Annual Nile Day Celebrations. This stance of Egypt, i.e. selective participation and engagement with NB countries, still poses impediment to ENTRO/ENSAP work, particularly as pertains to resource mobilization.

The international community still shows continued vested interest to be involved in and support Nile Basin cooperation in general and EN cooperation in particular, given the fact that the bulk of the hydropolitical, hydrological and regional security challenges stem from this part of the Nile Basin. For example ENTRO had benefited from CIWA additional funding, in addition to funding pledge from EU/GIZ.

## **3. Actual Results**

Below is a summary of major ENTRO-organized events that supported project preparation-implementation work; facilitation of governance oversight and guidance; building national and regional institutions' capacity and supporting the visibility of ENTRO/ENSAP in EN countries. Each event is detailed in the discussion section. A total of 542 Stakeholders were involved in these events, nearly 17% of who were women.

## Summary of ENTRO Trainings, Workshops and Exchange visits, July 2015-June 2016

S.N	Event	Venue	Date	Gender composition of Participants		
				Male	Female	Total
1	EN Governance meeting (ENCOM 29 <sup>th</sup> , ENSAPT 30 <sup>th</sup> )	Hawassa , Ethiopia	6 <sup>th</sup> -8 <sup>th</sup> August	23	2	25
2	BAS project Stakeholder consultation and Project Inception Report validation workshop	Hawassa , Ethiopia	10 <sup>th</sup> -12 <sup>th</sup> August	43	5	48
3	National training workshop on Result and Process Based Monitoring and Evaluation for watershed management	Juba	16 <sup>th</sup> -23 <sup>rd</sup> Sept.	24	7	31
4	RSS Awareness creation/ENTRO visibility workshop	Juba	27 <sup>th</sup> October	31	4	35
5	Proposed NB wide Sediment and water quality monitoring framework & data collection, communication and data transfer procedures Consultation workshop	Nazareth , Ethiopia	18 <sup>th</sup> -19 <sup>th</sup> October	26	2	28
6	BAS project: Consultation workshop to review the Scoping Report, consultation and communication plan	Khartou m	24 <sup>th</sup> -25 <sup>th</sup> Nov	57	4	61
7	Dam Safety Regulatory Framework Consultation workshop Dam Safety Regulatory Framework	Khartou m	25 <sup>th</sup> Nov	17	3	20
8	Sudan Awareness creation/ENTRO visibility workshop	Khartou m	26 <sup>th</sup> Nov	40	30	70
9	EN Decision Makers Watershed Management Experience Exchange visit	Tigray, Ethiopia	1 <sup>st</sup> -10 <sup>th</sup> Dec	25	1	26
10.	BAS Consultation workshop on Baseline report, SSEA framework and Concept Notes on Short term projects	Adama, Ethiopia	16 <sup>th</sup> -18 <sup>th</sup> April 2016	45	5	50
11.	ENTRO Awareness creation workshop	Wad-Medani	7 <sup>th</sup> June 2016	47	14	61
12.	ENTRO Awareness creation workshop	Juba	30 <sup>th</sup> June 2016	45	4	49
13.	ENTRO Annual Staff meeting and Capacity Building Retreat	Adama	26 <sup>th</sup> -28 <sup>th</sup> Feb 2016	27	11	38
	Total			450	92	542

## 3.1 Results for the Period

### 1.1 Enhanced ENSAP Image in NBI and EN countries

#### Corporate and Internal Communication:

ENTRO produced Volume Six of Nile Flow, with significant contribution from ENTRO staff. A highlight of this issue has been an extensive interview with outgoing ENCOM Chair, Minister of Water, Irrigation and Energy of Ethiopia, Alemayehu Tegenu, during which he outlined broader issues of EN cooperation, challenges and achievements. Further, the SDCU produced 14 Wall Posters on various themes of Eastern Nile (e.g. Land degradation; demography and population trends; dam safety; internship program; 3-D of the EN/Nile Basin; EN governance; Organization structure, etc.). ENTRO also took active part and made significant contribution – including organizing consultations and site visits - to the preparation of the World Bank financed “Nile Story”, including its 9 briefings, that document the results of the NBTF financed NBI results. ENTRO also played lead role in the preparation of the NBI’s *“Benefits of Nile Cooperation”* booklet including moderating workshop on content development and delivering two critical chapters – documenting results of EN Investment preparation and on Prospects of Nile Cooperation. The NBI booklet tells the story of 15 years of NB cooperation, from the vantage of NB member countries and staff; including benefits accruing to each country.

ENTRO has taken part in the Regional Nile Day Celebration in Kisumu, Kenya. ENTRO SDCU has been keynote speaker in an Event organized by Ethiopia NBI Office on occasion of World Water Day during which ENSAP experience and contribution to regional water resources management and development were highlighted. ENTRO, represented by the ED and SDCU, also took part in GIZ-organized conference on African River Basin Organizations’ Planning Experience Exchange in South Africa during which ENSAP-NBI experience were presented. ENTRO has contributed to the redesign of the NBI and Centers Logo, along with the NBI website. ENTRO is working to enhance ENSAP website and Webportal as well. NBI

communication products (ENTRO documentaries with over 30,000 internet hits) are also contributing toward building a better image.

### **ENTRO Visibility and Awareness Consultations**

In an effort to address ENSAP visibility and awareness gaps in member countries which it had identified earlier thru its own short in-country surveys, ENTRO facilitated and took part in a total of four one-day Stakeholder Awareness & Visibility Meetings in Juba, South Sudan (27<sup>th</sup> October 2015 and 30<sup>th</sup> June 2016) and Khartoum and Wad-Medani, Sudan (26<sup>th</sup> November 2015 and 7<sup>th</sup> June 2016). These Stakeholder Meetings were organized in consultation with ENSAPT leaders in each country. The meetings had the following specific objectives:

- To brief and update key stakeholders about the results ENSAP has so far achieved, challenges met and overcome; and future plans and the expected roles of stakeholders in promoting EN Cooperation in general and investment preparation and implementation in particular. Creating common understanding and setting the right expectations has also been a concomitant objective.



- To mobilize resources for ENTRO prepared ENSAP projects which need to be implemented as soon as possible (e.g. Watershed Management Projects)
- To solicit stakeholder support for successful implementation of ENTRO Strategic Plan, 2014-2019

A total of 215 participants (163 male; 52 female) attended these consultation and awareness meetings. Participants were drawn from line ministries, regional state governments, media, NGOs, the private sector, and from research and academia.

ENTRO delivered elaborate PP presentations both in South Sudan and Sudan, which extensively elaborated what ENTRO/ENSAP has been bringing to the countries; the value addition of ENSAP, ENTRO and in general what cooperation under NBI brings to the countries. The presentations also underscored why it is most cost effective to meet national water resources development needs thru transboundary cooperation under ENSAP than otherwise, not to speak of benefits that accrue to the countries beyond water, including capacity building, knowledge and analytical tools and overall trust and confidence building and regional security and peace. ENTRO SDCU moderated question and answer sessions both in Sudan and South Sudan, engaging the relevant national NBI officials (TAC members, National NBI office) ensuring that the multifaceted benefits that accrue to the countries are elaborated by the National ENSAP affiliated staff and captured by stakeholders.

### Short-term Outcome 1.2: Increased ENSAP dialogue and partnership with government, civil society, local communities, private sector and development partners

#### **Consultative workshop on the framework for the establishment of basin wide sediment and water quality monitoring (18-19 October 2015, Adama, Ethiopia):A**

major undertaking of the Watershed Management Project, the basin-wide erosion, sediment & water quality monitoring program is envisaged to be established within ENTRO. Its aim is establish a system to systematically collate and store relevant data and information for effective watershed management planning, monitoring, and evaluation and also for undertaking environmental, social and economic impact studies. A two-day consultation workshop was organized from 18<sup>th</sup>-19<sup>th</sup> October 2015. The purpose of the consultation was to introduce the findings of the study and to discuss on the way forward.



A total of 25 participants from Ethiopia, South Sudan, and Sudan & ENTRO attended the workshop. A general consensus was reached on the outputs and recommendation of the study with few corrections to be made. The



participants of the workshop also brainstormed on the way forward. (Note: There was not participant from Egypt due to their continued stand on freezing regional activities.)

**BAS Inception Workshop (10-11 August 2015, Hawassa, Ethiopia)**

The main objectives of the workshop were: to ensure that study approach and methodology are well understood and followed by the Consultant. Further, the role of the stakeholders in the study is well explained vis-à-vis the consultation and communication plan.

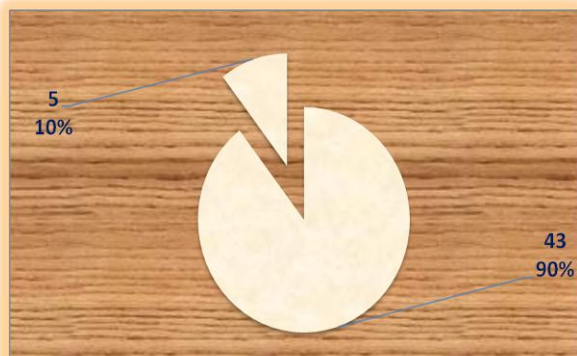


*BAS project study inception workshon*

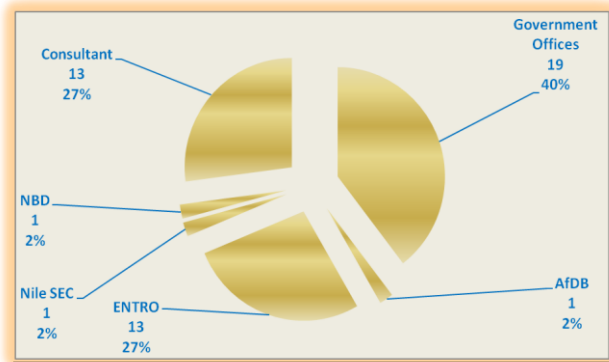


*BAS Inception workshop Group work*

The workshop brought together 48 participants from Ethiopia, South Sudan and Sudan and the Nile Secretariat and NBD. The African Development Bank Task Manager (TM) for BAS project also attended the workshop. Ten percent of the participants were female. The Consultant introduced the study approach, methodology and the modelling tools and received feedback.



*Gender composition of participants*



*Organizational composition of participants*

### **BAS Scoping Report and Consultation & Communication Plan Validation Workshop (24 -25 Nov. 2015, Khartoum)**

This is the third BAS stakeholder consultation workshop. The workshop deliberated on the Project Scoping Report and the Stakeholders Consultation and Communication Plan. The objectives of the workshop included:

- a) To bring together key stakeholders and informants at milestone stages throughout the project study for consensus and ownership of the products;
- b) To review and validate the project Scoping Report and the Stakeholders Consultation and Communication Plan



*Scoping Report, Stakeholder consultation and communication plan*

- c) To update and validate information and data sources for the SSEA study.
- d) To brief the project progress status.

A total of 46 participants attended the validation workshop; of whom, 27 were from government offices in the EN Countries of Ethiopia, South Sudan and Sudan, 11 from ENTRO, 4 from NBD and 4 consultants. Nine percent were female participants.

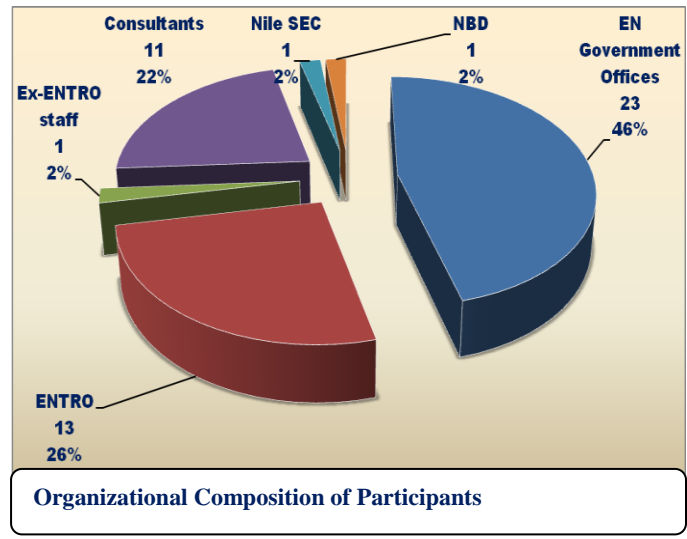
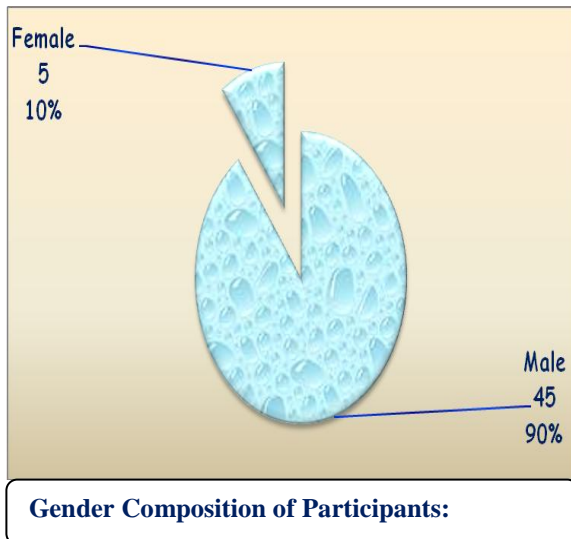
### **Baro-Akobo-Sobat (BAS) MPWRDP Baseline Report, SSEA Framework and Concept Notes on Short term projects Consultation Workshop (16-18 April 2015, Adama, Ethiopia)**

This is the 4<sup>th</sup> Consultation Workshop. It dealt with the Baseline Report, SSEA Framework and Concept Notes on Short Term Projects. The objectives of the workshop included:

- To enrich the baseline report (data & information); and reach a common understanding on the “SSEA Analytical Framework”
- To establish a shared understanding of the sub-basin development potentials, key issues and challenges.

- To formulate a shared “Vision and Strategic Objectives” for BAS sub-basin;
- To select three (3) prioritized bankable projects for preparation by the consultant.

A total of 50 participants attended the workshop; of whom, 23 were from government offices in the EN Countries of Ethiopia, South Sudan and Sudan, 13 from ENTRO, 11 consultants and 1 ex-ENTRO staff; one each from Nile SEC and NBD. Out of the total workshop participants 10% were female.



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

**National Training on Results and Process Based Monitoring and Evaluation for Watershed Projects, 16-23 Sept 2015, Juba**

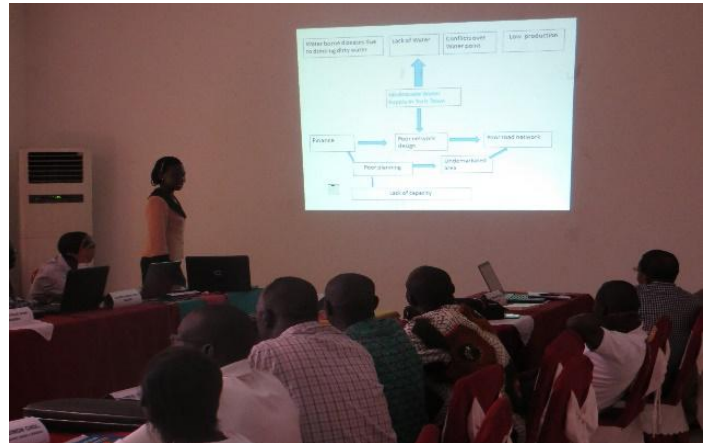
In line with the overall goal of the Eastern Nile Watershed Management project, this training was intended to enhance the technical capacity of partner institutions involved in watershed management in the application of a sound results based project design, implementation, monitoring and



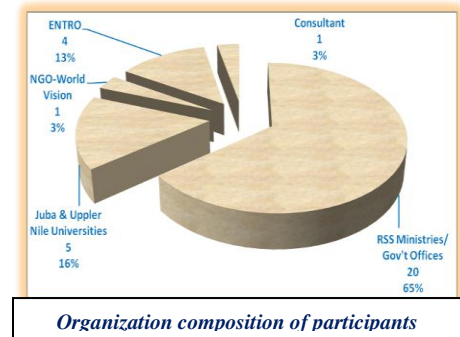
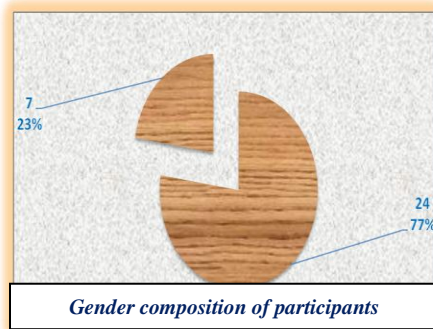


evaluation system.

The focus of the training was: clarifying M&E concepts (Process based, Results-based and Participatory M&E); improving participants' skills to formulate and adopt the results chain, logical framework and Performance Measurement Framework. The training enables participants to evaluate projects; improve the gathering, management, and communication of project information; preparation of results-based work planning and reporting.



A total of 31 participants attended the training. Of these 20 were from various Government offices in Republic of South Sudan (RSS), 5 from



Universities, 1 from NGO (World Vision RSS), 4 ENTRO staff, and 1 Resource person/consultant. In terms of gender composition, 23% were female participants.

### Experience exchange visit on Watershed Management to Tigray Regional State, Ethiopia (1 -10 December 2015)

The main purpose of organizing this experience exchange visit is to enable EN policy and decision makers directly learn from proven effective practices of participatory watershed management, which primarily is based on community participation and livelihood improvement. It is also to encourage



Soil and water conservation practices in Tigray, Ethiopia

decision maker participants to support the watershed management approach thru policy measures, support for project implementation and financing.

The visit also enables observation of how institutions undertake effective participatory planning, monitoring & evaluation of watershed management interventions. The study visit intended to complement a range of capacity building activities ENTRO organized at regional and national levels.



A total of 23 officials drawn from Ethiopia, South Sudan and Sudan and ENTRO participated in the study visit. The study visit was facilitated by the Tigray Regional Bureau of Agriculture and Rural Development and the Sustainable Land Management Program (SLMP) Regional Coordination Office. In addition to visiting different interventions in the field, the group had opportunities to interact with communities as well as administrative and technical staff at different levels.

### **Establishment of National Dam Safety Units**

On the basis of a concept note developed by ENTRO, National Dam Safety Units have been established in Ethiopia, South Sudan and Sudan. In Ethiopia, the Dam safety Unit has been established at the level of Directorate under the Ministry of Water Irrigation and Electricity on 28<sup>th</sup> June 2016. The launch workshop of the Directorate was attended by more than 100 participants from different sectoral offices, private companies, universities and civic societies. ENTRO made a presentation on Eastern Nile Dam Safety experiences and key achievements so far.



## ENTRO Internship Program

Two batches of interns took part in the report period.

### Internship Program: 5<sup>th</sup> batch ( "2015 Flood Management and Forecast")

The Eastern Nile Flood Management and Forecasting System is one of the activities that ENTRO has been undertaking for the last *three* flood seasons employing young professionals from ENSAP member countries. ENTRO invited four interns for 2015 flood season which lasted from July to mid-September 2015. The activities conducted under this internship program included:

- A review of ENTRO's FPEW Project activities pertaining to flood forecast; identifying gaps thereof; develop methodology and model procedures for the 2015 flood forecast for: Lake Tana flood prone area – Ethiopia; Blue Nile – Main Nile flood prone area – Sudan; BAS – Baro river in Gambella flood area – Ethiopia; and BAS – Sobat river near Doleib – South Sudan.
- Rainfall and Flood forecasting and early warning for 2015 flood season - producing daily, weekly, and seasonal forecast
- Support ENTRO web portal by providing the necessary information for flood report and bulletin



### Internship program: 6<sup>th</sup> batch

The 6<sup>th</sup> batch Internship, consisting of one each intern from Ethiopia, South Sudan and Sudan, will last Jun thru end of August 2016. The three interns work on different areas as presented below;

- Production of Communication Material (support in preparation of project brochure for use in public events)
- IT Support (support to develop interactive tool to update One System Inventory (OSI) kit.
- Climate Change Analysis: Climate data for all scenarios from the IPCC-AR5 (both for different GCMs and RCM) shall be collected from different sources. Hydro-climate data manipulation and pre-processing is in progress.

### **BAS- WRDS Project National Project Coordinators**

Each EN country has assigned a National Project Coordinator to support the Baro-Akobo-Sobat project study implementation.

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

### **EN Governance Meeting (ENCOM 29<sup>th</sup>, ENSAPT 30<sup>th</sup>) 6-8 August 2015, Hawassa, Ethiopia**

The ENCOM meeting provided decisions and guidance on key ENSAP related issues including: The following were the main deliberation points; Matters arising during the 28<sup>th</sup> ENCOM Meeting; Corporate Report and ENSAP Annual Report, July 2014 to June 2015); ENSAP Activity Plan and Budget July 2015- June 2016; Resource Mobilization Activities; Information Disclosure Policy & Implementation Guideline of ENSAP; Policy on Partnership with Research and Academic Institutes; Assessment of Spillway Design Flood estimation Techniques in EN Countries. ENTRO provided the national media with news briefs, updates and press releases including on its website.





## **ENTRO Collaboration and Networking**

Following the MoU agreement with ENTRO and IFPRI, ENTRO signed a contract with Centre for Development Research (ZEF)-University of BONN to conduct joint research and scenario analysis on Water-Energy-Food nexus in the Eastern Nile basin using the Eastern Nile Multipurpose Option Scoping (ENMOS) model, including further development and additional enhancement of the ENMOS model code. As part of this project, ENTRO supported one PhD Student enabling her to apply ENTRO's tools and models.

The collaboration work has been started with developing a plan on the methodology for updating ENMOS model with the objective of examining the impact of changes in allocations and investments in the water, energy and food sectors on economic benefits from water use, energy generation and agricultural production. Also, it is planned to include key economic indicators of employment, poverty and economic growth in Ethiopia and across EN sectors and scales through an integrated modeling approaches. Eventually, ENTRO will jointly publish a paper on the nexus approach for the Eastern Nile Basin.

ENTRO also, signed MoU with Institute for Technology and Resources Management in the Tropics and Subtropics (ITT) to promote collaborative research, capacity strengthening and communication. One ITT PhD student was based in ENTRO for three months to access ENTRO database and documents.

ENTRO is also collaborating with Technical University of Munich (TUM) to support a PhD student, for two months, conducting research on Blue Nile sediment analysis.

Further, ENTRO has been networking with and supporting different research on the Nile by PhD students. These include a Ph.D. Researcher from McGill University, Canada; a Ph.D. researcher from Addis Abab University, Ethiopia; and a Ph.D. research from Kings College.

ENTRO supported Nile-Sec by providing the modelling tools for the NB-DSS enhancement. ENTRO's SWAT model has been used as a case study for the development of SWAT adaptor for NB-DSS. ENTRO has been engaged in the testing of the new functionality of NB-DSS like; testing the WEAP and SWAT adaptors, climate analysis tool, and NB-DSS.

ENTRO has been collaborating with Nile-Sec for the Nile environmental flows assessment project. Accordingly, one of the pilot studies has been conducted in the Eastern Nile Basin

Dinder-Alitash Park and ENTRO supported the study by providing the necessary data and information.

ENTRO also supported preparation of Nile Water Atlas providing information about the Eastern Nile sub-basin. ENTRO SDCU participated actively on reviewing the first draft of the Atlas, forming part of the editorial team, (focusing on chapters of socio-economic development) and provided the required data sets to improve the quality of the report.

In July 2015, ENTRO signed a Memorandum of Understanding (MoU) with the Nile Basin Discourse (NBD) for joint implementation of the Baro-Akobo-Sobat (BAS) project up on finalization of the identification of short term projects; particularly pertaining to facilitation of grassroots participation and consultation. So far, NBD has participated in BAS workshops in August 2015 Hawassa, Ethiopia; Nov 2015 in Khartoum, Sudan and April 2016 in Adama, Ethiopia.

ENTRO also took part in the three Center NBI coordination meeting contributing to the 5<sup>th</sup> NBDF planning; Nile Day organization, and preparation of NBI corporate Report.

ENTRO, in collaboration with the International Centre for Hydropower (ICH), Norway, organized a Regional Training on “Dam Safety Management”, in Addis Ababa, Ethiopia from 30<sup>th</sup> November to 4<sup>th</sup> December 2015. The training was funded by the Norwegian Agency for Development Cooperation (NORAD).



A total of 20 participants from 7 African countries attended the training Kenya (2), Sudan (5), Uganda (3), Ethiopia (5), Zambia (1), Zimbabwe (1), and Malawi (3).

### **Resources Mobilization**

Among others, ENTRO contacted and held discussion with various development partners (both existing and new development partners) which include: Netherlands Embassy, Finland Embassy, NORAD, GEF-WB, CIWA-WB, DFID, AfDB, AFD-France, EU, and GIZ. Following the discussion, ENTRO formulated project proposals/profiles and submitted for EU, GIZ and CIWA-WB for funding. Project proposals were prepared on Flood Forecast and

Early Warning Phase II; Planning, Information and Knowledge Development; Internship program; Watershed Management, Dam Safety, Water Diplomacy, and Climate change. The SDCU has been leading the preparation of the project proposals to support resource mobilization, providing the content outline and standardizing the format of presentation, including for selected cases, an outline of a logical framework and stakeholder analyses.

### **ENTRO Web Portal**

The ENTRO IT team in coordination with Finance, Procurement and other staff negotiated and renewed a web hosting contract for two years with Riverside Technologies Inc (RTI-USA) at a total cost of \$36,000 payable in two installments.

### **ENTRO Website Redesign and D-Space**

ENTRO website (<http://entro.nilebasin.org>) was upgraded for the second time. GIZ supported the upgrading of the entire NBI website database and the content management system and that of the three centers. ENTRO took part in the upgrading and harmonization of the centers' web sites.

With the goal of updating the functions of ENTRO library, a D-Space has been developed. D-space is to facilitate the online accessibility of ENTRO documents and thus widen the number of users and beneficiaries. The uploading of documents is on progress but due to outdated infrastructure it is taking longer time. To get over this constraint, ENTRO is working to procure a server dedicated for ENTRO library resource (for e-library). The procurement process is progressing.

### **NCORE Implementation Support Mission**

The biannual implementation support mission (ISM) comprising of funding agencies (World Bank) and implementation agencies (ENTRO) was carried out in Nov 2015. The mission reviewed status of the project's planned milestones as of June 2015. The overall assessment of the review mission indicates that progress was moderately satisfactory.

## Short-term Outcome 3.1: Increased ENSAP cooperative investment projects identified and prepared for implementation

### **Eastern Nile Watershed Management (ENWM) Project Closing Mission, 3-15 November 2015**

The WB/GEF Project Closing Mission took place 03-15 November 2015 (03-04 Nov, Egypt; 05-06 Nov ENTRO and 07-15 Sudan). The Mission evaluated both the financial and non-financial status of the project. During the the mission visit to ENTRO the RPC made presentation about the project status, including challenges faced during project implementation.

ENTRO underscored to the Mission the social development value addition of the Eastern Nile Watershed Management Project – integrating livelihood concerns, women’s participation and empowerment, alternative income generation into the watershed restoration activities as such, including soil conservation and improved farming practices.

### **ENWM Project Completion Report (PCR)**

The PCR clearly indicated the extent of project achievements against the set objectives, major challenges encountered and how they resolved, lessons learned and recommendations thereof. The PCR constitute an important input to the preparation of similar projects in the future.

### **Dissemination of Dam Safety Products**

The EN dam safety products - Eastern Nile Reference Dam Safety Guideline (both for small and large trans-boundary dams); Small Dam Safety Guideline (focusing on national level small dams); Dam Safety Training Module were disseminated to 51 national, regional and international institutions. It is to be recalled that these Products were produced during the preceding reporting period.



### **Preparation of Draft Regional Dam Safety Framework**

A reference regional dam safety framework has been developed and discussed with key regional stakeholders on 25<sup>th</sup> November 2015 in Khartoum, Sudan. A total of 20 participants attended the meeting.

### **Paper on Dam Safety challenges and opportunities**

A paper entitled “*Eastern Nile transboundary cooperation on dam safety: challenges and opportunities*” was presented at the International Commission on large Dams (ICOLD) conference, held from 15<sup>th</sup> -20<sup>th</sup> May 2016, Johannesburg, South Africa . The paper has been included in the Conference Proceedings.



### **Assessment of spillway design flood estimation techniques in the EN countries:**

The main objectives of this study are to:

- Identify the strengths, limitations of the criteria and methodologies used to estimate floods in line with Eastern Nile dam safety guideline (and current international practices);
- Provide recommendations to improve the hydrological safety of dams in the EN countries and
- Identify further study and research areas

The assessment report is being finalized and the draft report will be submitted within the coming four–six weeks.

### **TOR for updatine ENPTS**

A concept note has been developed towards preparing a TOR for updating the EN Power Transmission and Trade Feasibility Study of 2008 and Dam Safety Institutional Setup Studies. Towards this end approaching East African Power Pool is envisaged to solicit financial support.

### **Three- year (2016/17- 2018/19) EN Dam Safety Program**

A concept note/ proposal comprising has been prepared for funding. These include:

- A road map for coordinated operation of Transboundary Cascade Dams reservoir operation; Development of framework for coordinated operation of Transboundary Cascade dams in Eastern Nile; Organizing consultation workshop to finalize EN Regulatory Dam Safety Framework; Dam safety capacity building: Strengthen National and Regional dam safety units; Development of implementation strategy for dam safety framework and Eastern Nile dam safety guidelines; and Development of Eastern Nile cascade dams Emergency preparedness and Response Action Plan.

### **BAS-MWRDS Project Midterm Review**

Project Midterm Review was conducted from 12<sup>th</sup>-21<sup>st</sup> August 2015. The African Development Bank team was headed by BAS project Task Manager. The mission reviewed progress in project implementation, financial disbursement, and procurement management. The team held discussions with ENTRO, stakeholders in the Ministry in-charge of water affairs in Ethiopia and took some visits to South Sudan where the team met with the Minister in-charge of water affairs and the Ministry of Agriculture, Forest, Animal Resources and Finance. The Project Midterm Review Mission draw up some recommendation and action points which are summarized in an Aide Memoir of 21<sup>st</sup> August, 2015.



### **BAS Regional Technical Working Group (RTWG)**

The Baro-Akobo-Sobat project appraisal report (PAR) mandated for establishment of a multidisciplinary Regional Technical Working Group (RTWG) comprising of technical staff from the line Ministires in the EN-Countries to support BAS project implementation; through: data collection, validation and assisting ENTRO in reviewing the project deliverables submitted by the consultant to incorporate essential countries' perspectives. The RTWG consists of five (5) members each from Ethiopia and South Sudan, and three (3) from Sudan which are supporting the Project.

### **Current Status of the BAS-MWRDS Project**

Preparation of the first draft Strategic Social and Environmental Assessment (SSEA) report is progressing; concurrent with preparation of the prioritized three (3) short term bankable projects to be ready by October 2016. Within the coming 1<sup>st</sup> quarter (August, 2016) the fourth stakeholders consultation workshop is planned.

### **Technical Write-up of EN Multi-Sector Investment Opportunity Analysis Study**

The Eastern Nile Multi-Sector Investment Opportunity Analysis (EN-MSIOA) is the first of its type that, making a no-borders, hydrologic-unit analysis (taking the entire EN sub-basin as the planning space), aggregated planned and existing water resources investments of Egypt, Ethiopia, Sudan and South Sudan; developed, in consultation with the countries, a possible list of water use scenarios, investment options and multi-criteria indicators with weights (to make selection and prioritization among the options possible). So far country consultation across the various phases has been a hallmark of this study, except for one crucial consultation that should have taken place in order to secure country approval and buy-in on the final and ultimate deliverable of the study i.e. on the prioritized investment projects, on the preferred investment strategy and the recommended investment action plan. To facilitate this final, much-needed country consultation, ENTRO needs to prepare and avail the study in accessible format and distribute to stakeholders. Toward this end ENTRO has developed a TOR for a technical writer/water resource planner. The consultant has already signed the contract and started the task accordingly.

### **Sustaining and Enhancing EN-Flood Season Monitoring Program**

The 2015 flood forecast and early warning has been successfully completed for Lake Tana, Blue Nile Sudan part, Gambella and some parts of South Sudan. A report has been prepared on “Flood Preparedness and Early Warning Season forecast of 2015” describing the methodology and results. During the flood forecast of 2015, ENTRO faced a challenge in using the ETA model for the Lake Tana Flood prone areas making it necessary to search for other options of forecast models. Toward addressing this challenge ENTRO undertook the following:

- Diagnostic assessment of the ETA model problem, which is quite old requiring updating, and fixing the identified problem, and enhancing automation of model run.

- After assessing the latest forecast tools available, Weather Research and Forecast(WRF) system model has been implemented to replace ETA model starting from 2016 flood season. As of now, ENTRO has installed and configured latest and stable version of WRF meso-scale numerical weather prediction system with output data post processing. A script is prepared that automates downloading of initial and boundary condition datasets from global GFS site and preprocessing of input and automate WRF runs. A user manual and a complete report have been prepared regarding model configuration and user guide.

### **Short-term Outcome 3.2: Increased integration of social development and environmental dimensions in ENSAP projects**

#### **Mainstreaming of Social and Environmental issues in Project preparation:**

SDCU, as member of the Baro-Akobo-Sobat Multipurpose Water Resources Development Study Project Implementation Team (PIT), has been overseeing the integration of social and environmental dimensions into the project preparation work. Thus, the consultant has been provided written feedback to the Inception Report, and also during deliberations, on key social (poverty, social vulnerability; social conflicts; gender inequality; social structures, livelihood, etc.) and environmental variables (biodiversity, impact of development on flora and fauna; SSEA conception of key issues) that need to be factored in. SDCU co-facilitated and made presentation on the Scoping Workshop, commenting on the preliminary Stakeholder Analysis and Communication submitted, and outlined conceptual and procedural directions on the basis of NBI policies (viz. NBI Stakeholder Involvement and communication Strategy; Environmental and Social Policy, etc.).

#### **3.2 Sustainability of Results**

At EN level enhanced country ownership is the single most critical variable to sustain results. To promote even more country ownership, there is the need to build more trust and confidence, toward the achievement of which resource mobilization for water diplomacy and enhanced media engagement was focused on during this reporting period.

With the proliferation of water infrastructure across the length of EN main tributaries the need for dam safety and coordinated operation of reservoirs is critical. Dam safety guidelines have been distributed to countries, along with capacity building. A renewed effort has been made to mobilize resources to support efforts in these domains.

Another critical element for sustaining results is Watershed Management. Though with outstanding results, the project needs to scale up successful approaches, methods and practices it piloted. Renewed effort is required to institutionalize watershed management because in the final analysis all the expensive reservoirs and irrigation schemes rely on reducing sedimentation and clogging.

The active involvement of stakeholders during consultation workshops and project study has created common understanding and ownership feeling which will impact positively the sustainability of the deliverables into the next steps. For instance, all BAS stakeholders are actively engaging in the study of the project; with the national project coordinators, regional technical working group and the project steering committee on board.

A number of capacity trainings and capacity building workshops were facilitated at national level to strengthen the planning, implementation, and monitoring and evaluation capacity of experts in the EN which has utmost importance to sustain the project gains/achievements.

#### **4 Program Management:**

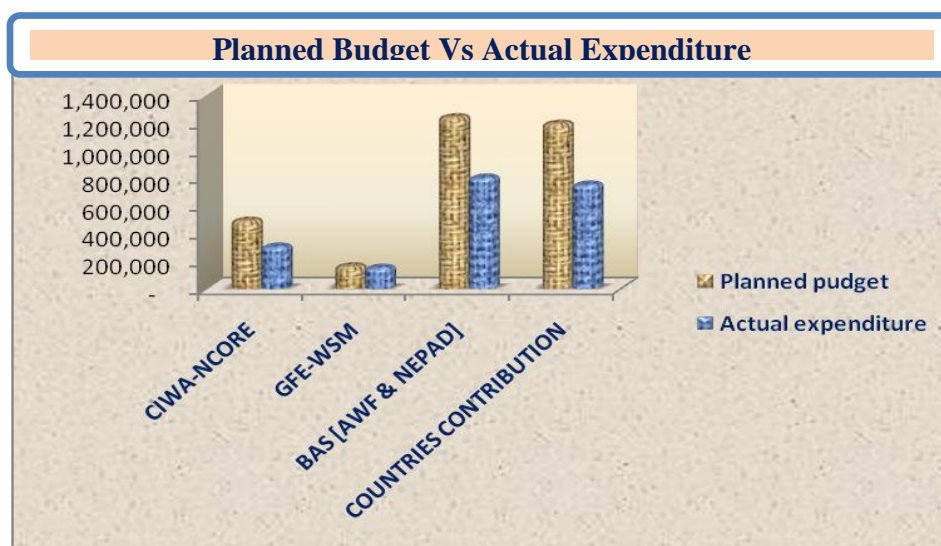
ENTRO has exerted considerable effort in coordination and management fostering strong team-work and collaboration within ENSAP projects and other crosscutting functional units. ENTRO management was closely following the implementation process of each ENSAP project. Although it was unable to implement regional activities fully, because of the EN hydro-political situation, ENTRO nevertheless devised alternative alleviation strategy and implemented regional activities separately at national level, adapting to country circumstances, through active involvement of national project coordinators. Also, ENTRO sustained the internship program working with EN Universities. The Program has been successful in bringing together young EN professionals who will be the managers and

decision makers of tomorrow, enabling them to share experiences, develop trust and mutuality and learn from the realities that is going on in the EN.

## 5 Program Expenditures:

This budget utilization report is prepared on the basis of the annual work plan & budget for July 2015-June 2016. Out of the total US\$ 3.08 million annual budget for July 2015-June 2016, US\$ 1.99 million (65 %) was utilized over the last twelve months ending 30th June 2016. The reasons for the variance are described in the table below.

ENSAP Annual Budget Vs Actual Expenditure, July 2015-June 2016				
ENSAP /ENTRO projects with funding sources	Annual Planned Budget	Annual Actual Expenditure	% utilized	Reasons for the variance, if any
WSM -GEF	158,356	147,321	93%	
NCORE-CIWA	489,173	300,688	61%	Due to limited suppliers of IT materials such as UPS and Server, the re-bidding process delayed utilization of the planned budget
BAS -AFDB	1,237,802	800,224	65%	It took the consultant long time to establish the baseline for the BAS sub basin, this led to late submission of the First Draft SSEA Report
Country Contribution	1,190,942	749,993	63%	The budget was planned assuming South Sudan will pay its country contribution in the reporting period. However, the CC not yet paid
<b>Total</b>	<b>3,076,273</b>	<b>1,998,226</b>	<b>65%</b>	





## 6 Major Challenges & Constraints and Mitigation strategies:

*Funding:* For the reporting period and in the short run as well, ENTRO's preoccupation has been securing sustainable funding. Towards this end, priority has been given to resource mobilization. This included: prospecting funders, making contacts and presentations for potential funders; developing and preparing project concept notes and proposals as needed. ENTRO has also been working towards diversifying its funding and collaborating partners, though that is by and large with academic institutions which contribute more in the area of capacity and knowledge building, though ENTRO has been able to charge nominal fees for its services. Project proposals submitted to EU and GIZ are promising, but take time for their realization. ENTRO has also got some funding from CIWA, from its unallocated fund pool. ENTRO will embark during the current year on a vigorous theme-based resource mobilization effort, focusing on those that are priority globally and regionally, such as biodiversity protection, transboundary park establishment and management linked to watershed management; Wetlands management, community level climate change adaptation strategies, including innovative livelihood improvement schemes such as promotion of eco-tourism.

Increasingly, country contribution is becoming a more reliable source of funding for ENSAP. ENCOM 29<sup>th</sup> has resolved on timely payment of country contributions. However, RSS has yet to meet this commitment. Ethiopia and Sudan have completely met their obligations. ENTRO is working with RSS to resolve the issue.

Eastern Nile countries have made significant progress to lay the foundation for standard dam safety practice in the sub basin and reduce the risk of dam failure. However, there is a lot that remains to be done in order to ensure the safety of and continued economic performance of EN dams which are situated on a transboundary river. The major challenge was thus, budget constraints to fully address all the proposed activities under the Eastern Nile Dam Safety Road Map.

*BAS MPWRDP:* The study had initially encountered water resources, environment and socio-economic related data challenges. Thanks to the coordinated effort made by ENTRO with Nile-Sec and EN countries, this has been mitigated, though not completely overcome. The

remaining challenges are being met with remote sensing methods. The challenges encountered during this reporting period, were those associated with the end of the project grant disbursement period of 31<sup>st</sup> August 2016. To mitigate this, per ENTRO request, the Bank granted extension of the disbursement deadline up to 31<sup>st</sup> August 2017.

## 7. Lessons Learned and Recommendations

**Resource Mobilization:** A major lesson is that resource mobilization needs to constitute a regular, planned routine activity of ENTRO with clear planned objectives. Embarking on resource mobilization only when shortfalls are encountered does not guarantee financial sustainability. Another lesson is that ENTRO needs to bring on board the governance to back up the resource mobilization effort, especially when soliciting support from international development assistance. Timely payment of country contribution is a critical factor. ENTRO acknowledges Ethiopia's and Sudan's timeliness in meeting their contribution requirements, and hope South Sudan will do same when the current difficulties are overcome. Diversification of funding sources will be a strategic agenda for ENTRO for the next years. In this regard identifying and cultivating partnership with new emerging global powers will be pursued. Enhancing ENTRO visibility is considered an important factor – also for resource mobilization. Another lesson is that there is promising potential to mobilize more resources provided proposals are developed that are in sync with emerging global priorities such as Climate Change adaptation/mitigation; Sustainable Development Goal; biodiversity preservation; etc.

**Watershed Management:** It is to be recalled that ENTRO has been a pioneer in piloting successful Integrated Watershed Management practices in Ethiopia and Sudan that are at one and the same time both people /livelihood and environment centered. These successes call for extensive scaling up, without which hitherto efforts will be sunk-cost. In anticipation of this, ENTRO has already built national capacities of relevant institutions on scaling up. Further, implementation of already prepared Watershed Management investment-ready projects (two in Ethiopia – Chemoga Yeda and Finchaa Integrated Watershed Management and two in Sudan –Upper Atbara Restoration of Kerbi Lands and Kassala Water Harvesting in the Gash Delta-Telkuk). Since existing and planned Eastern



Nile water infrastructure (cascade dams, irrigation schemes) are always at the risk of being decommissioned prematurely due to sedimentation, extensive watershed management – and hence scaling up of ENTRO pioneered, proven watershed management practices - should form part and parcel of the strategy for sustaining these expensive infrastructure.

**Coordinated Operation of EN Cascade Dams and Dam Safety:** The largest concentration of large-scale water infrastructure in the Nile Basin is located in Eastern Nile. High Aswan Dam, Meroe Dam, the heightened Rosiers Dam; the Grand Ethiopian Renaissance Dam; the Tekeze Dam are existing ones, and more are planned on the Ethiopian part of the Abbay-Blue Nile. Coordinated operation of these dams is something that cannot be bypassed beyond economic and water resources use efficiency enhancement and optimization. This issue constitutes an important *regional security agenda* in and of itself. Likewise, securing the safety i.e. safe operation of these dams, including disaster preparedness, is an important issue. Coordination of operation and ensuring dam safety cannot be achieved by any single country, alone. It requires sub-basin/basin cooperation, underscoring the case for the indispensability of ENTRO.

**Enhancing Regional Trust and Confidence:** It is to be recalled that the disagreements surrounding the signing/ratification of the CFA have bearing on the sense of mutuality and regional trust and confidence in the EN. The tasks of advancing regional trust and confidence should not be left to governments alone. It is now being increasingly recognized that critical EN non-government actors such as ex-diplomats; prominent and influential personalities; faith community leaders; the private sector; civil society; women; parliamentarians all have significant potential to make a difference. The media has singular capacity and potential to move the discourse on EN cooperation from adversarial manipulative rhetoric toward building understanding and mutuality. The development partner community is also according priority to this sector.