

## Mini Workshop on the GERD as part of the Science Week (Brief Report)

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### Introduction

The Blue Nile Water Institute at Bahir Dar University organized a half-day workshop on the Grand Ethiopian Renaissance Dam (GERD) on **Friday, November 13, 2020**. The purpose of the workshop, which was held at Wisdom Hall and **attended by about 35 researchers** from BDU and Abbay Basin Authority, was to **enrich the concept notes** and **check for duplications across teams** of the recently initiated multidisciplinary research project on the GERD. This project, which is currently at its inception stage, aims at **generating scientific knowledge and organized information** to support the *planning, policy development, decision making and resource management* efforts towards a sustainable and efficient utilization of the GERD and its surroundings. Following a series of meetings and discussions in August and early September 2020, thematic areas of the proposed research have been identified and **10 research teams** were established. Every team has developed a research concept note in which they *stated their research ideas, set their general and specific objectives and identified major research activities and stakeholders*. At the workshop, each team presented their research concept notes and their ideas were enriched through discussions and comments from the audience. The teams are now requested to revise their concept notes based on the comments forwarded at the workshop.

### Workshop program

Starting time	Activity	Person in charge
9:00	Welcome address and introduction	Dr. Dagnachew Aklog
9:10	Integrated watershed management of the Abay River Basin for sustainable use of GERD	Dr. Temesgen Enku
9:20	Irrigation Potential Assessment of the GERD	Dr. Asegdew Gashaw
9:30	Geospatial Technology for the GERD	Dr. Daniel Ayalew
9:40	Q&A, Discussion (30 minutes)	
10:10	Prospects of Fisheries Development and Water Quality Management at GERD	Dr. Minwelet Mingist
10:20	GERD-Biodiversity-Ecosystem Services nexus at Guba, Benshangul Gumuz Regional State	Dr. Amare Bitew
10:30	Assessment of GERD's reservoir water quality and its impact on public and environmental health	Goraw Goshu
10:40	Q&A, Discussion (30 minutes)	

11:20	Potentials of the GERD for Ecotourism Destination Development in Ethiopia	Dr. Eshetu Moges
11:20	Entrepreneurship and youth empowerment around the GERD	Zewdu Lake
11:30	Potential Socio-Economic Impact of the GERD	Dr. Amare Sewnet
11:40	Policy and Institutional Challenges of Sustainable Water Governance in the Nile Basin	Embiale Beyene
11:50	Q&A, Discussion (30 minutes)	
12:20	Closing remarks	Prof. Yihenew G. Silassie

### Summary of comments and questions

SN	Title	Presenter	Comments and questions raised during the presentation
1.	Integrated watershed management of the Abay River basin for sustainable use of GERD	Dr. Temesgen Enku	<ul style="list-style-type: none"> <li>• Include soil and water conservation trends and its contribution in the basin, including impacts of deforestation. Afforestation, area enclosure as watershed management strategy</li> <li>• Include River bank management</li> <li>• Consider climate variability (climate change): implications to basin hydrology and soil erosion (already addressed)</li> <li>• Identify the scope clearly to manageable level</li> <li>• The first specific objective will be good if it is re-phrase like all-natural resources in the basin...</li> <li>• Abay basin has developed some kind of decision support systems. So, can you pls see the decision support systems that will be developed in this project are compatible with the Abay basin authority?</li> </ul>
2.	Irrigation potential assessment of the GERD	Dr. Asegdew Gashaw (Sisay Asres )	<ul style="list-style-type: none"> <li>• Determine the of scope the study clearly and focus on downstream (below the dam) irrigation potentials</li> <li>• Upstream irrigation may reduce water for HEP</li> <li>• Some overlap (like suitability analysis) with Geospatial tasks also observed and need to work together to avoid redundancy</li> <li>• Show clearly the impacts of upstream completed and planned irrigation schemes on the GERD</li> </ul>
3.	Geospatial technology for the GERD	Dr Daniel Ayalew	<ul style="list-style-type: none"> <li>• Instead of Upper Blue Nile basin call it in Amharic version "Abay basin"; promote Ethiopian name</li> <li>• Include rivers and other water bodies buffering in your GIS work in addition to the GERD reservoir buffering</li> </ul>

4.	Prospects of Fisheries development and water quality management at GERD	Dr. Minwyelet Mengist	<ul style="list-style-type: none"> <li>• It will be good if this project focus on fishery resources and aquaculture including challenges</li> <li>• Include area enclosure inside the GERD and pond-fish farming around the GERD as means of aquaculture strategies.</li> <li>• Pond aquaculture in the GERD area will be a promising investment and thus will be good to do a kind of suitability analysis using RS and GIS technology.</li> <li>• Your research project should precisely indicate how the post-harvest loss happened in Takeze reservoir will not be repeated in GERD</li> <li>• Water quality component is a redundancy with the <i>Water Quality and Health team</i> and need to work some kind of harmonizing</li> </ul>
5.	GERD-biodiversity-ecosystem services nexus at Guba, Benshangul Gumuz Regional State	Dr Amare Bitew	<ul style="list-style-type: none"> <li>• The scope of the study is not clearly identified</li> <li>• The study should include conservation and mitigation measures emphasizing on rare, vulnerable and endangered biodiversity</li> <li>• Aquatic animals will be covered in the fishery project. So, delete this in your project</li> <li>• A kind framework showing the nexus of the three components aren't explicitly shown in your project. Think over it.</li> <li>• How are going to address ecosystem services?</li> <li>• LULC analysis (specific objective 4) is a repetition with the GIS team. For your purpose you can take the data from Geospatial team.</li> </ul>
6.	Assessments of GERD's reservoir water quality and its impact on public and environmental health	Goraw Goshu	<ul style="list-style-type: none"> <li>• Include animal health (zoonotic disease)</li> <li>• There is a repetition regarding water quality management with fisheries development team and need to work closely to avoid duplication</li> <li>• Project activities and outcomes are not balanced. Make a kind of balance on it</li> </ul>
7.	Potentials of the GERD for ecotourism destination in Ethiopia	Dr Eshetu Moges	<ul style="list-style-type: none"> <li>• The sampling procedures and techniques went to deeper in your case</li> <li>• Ecotourism development will need only preliminary assessment and observation, shall not go to the level of wildlife taxonomy</li> <li>• If you need animal and vegetation data in detail, you can obtain it from biodiversity team</li> <li>• Include how to tackle the negative consequences of tourism</li> </ul>

8.	Entrepreneurship and youth empowerment around the GERD	Zewdu Lake	<ul style="list-style-type: none"> <li>List all the potential sectors that will create employment opportunities and focus on those that will have magnificent influence</li> <li>Try to identify new job opportunities that the GERD will create</li> </ul>
9.	Potential socio-economic impact of the GERD	Dr. Amare Sewnet	<ul style="list-style-type: none"> <li>Include more people from Economics discipline</li> <li>Identify the scope clearly (may be at the country level as the socio-economic impact goes beyond the GERD area, discuss it among your team members)</li> <li>It will also be good if your project collect data from Sudan as well as Egypt to see economic impact of the GERD on downstream countries as well</li> <li>Refine and make very clear your research methodology framework</li> </ul>
10.	Policy and institutional challenges of sustainable water governance in the Nile basin	Embiale Beyene (Abebe Yirga)	<ul style="list-style-type: none"> <li>Include personnel from Law school</li> <li>Data collection shall go beyond Eastern Nile basin including South Africa</li> <li>Review and synthesize optimal water governance experiences that are appropriate to our cases</li> </ul>

## Conclusion

In addition to enriching the concept notes of the recently initiated multidisciplinary research project on the GERD, the workshop was a great opportunity to share these research ideas to the university community. We were not able to invite stakeholders other than the Abay Basin Authority this time because of the limited time we had for preparation but, all in all, it was a successful mini workshop.