



**CONCEPT NOTE FOR A SCIENCE DIPLOMACY SYMPOSIUM ON
TRANSBOUNDARY NILE WATER MANAGEMENT**

Venue: African Academy of Sciences, Nairobi, Kenya

Date: 23-25 October 2024

1 Summary of proposed action

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| Title of action | Interdisciplinary symposium on the use of science diplomacy for transboundary Nile water management |
| Description of action | Scientists convening to explore the potential of using Science Diplomacy for transboundary Nile water management and resolving related use conflicts, demonstrating the relevance of independent scientific evidence to bolster public decision making |
| Purpose | To provide a platform for creating awareness, sharing evidence-based scientific presentations, disseminating best practices in transboundary water management, and engaging in dialogue to demonstrate the environmental, economic, social and cultural dimension of Nile water use and make recommendations for harnessing science diplomacy to resolve related use conflicts |
| Target group | Scientists, academics, and experts working on different dimensions of Nile River water use (e.g., water, food, energy, transport, trade, economic, social and cultural relations) as well as international organizations such as UNESCO and FAO. |
| Number of participants | 30 experts and participants mainly from the Nile Basin countries (Burundi, DR Congo, Egypt, Ethiopia, Eritrea, Kenya, Rwanda, South Sudan, Sudan, Tanzania, and Uganda) and a limited number of experts from other countries in Africa and the EU |

Expected outcomes

Through a series of plenary discussions and thematic workshops, the proposed symposium shall provide an opportunity for harnessing Science Diplomacy as a tool to sustainably manage Nile water resources and resolving related conflicts.

At the end of the symposium, evidence-based recommendations shall be produced, addressed to Nile water policy stakeholders.

Ultimately the aim is to strengthen the policy making process and bolster public decision making on efficient use of the Nile River for sustainable development of ALL, thereby contributing to peace building in the region.

Venue

African Academy of Sciences (AAS), Nairobi, Kenya

Date

23-25 October 2024

Budget

Funded by the European Commission in close collaboration with AAS

2 Rationale

The Nile River draws its waters from a multitude of tributaries in the Nile River Basin, which spans 11 countries in northeastern Africa: Burundi, the Democratic Republic of the Congo (DRC), Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, South Sudan, Tanzania, and Uganda. Of these tributaries, the longest is the White Nile, and from its origin in Lake Rweru on the border of Rwanda and Burundi to the Nile Delta in Egypt, the water flows a remarkable 6,650 kilometers. The Equatorial Lakes subbasin, which discharges into the White Nile via Lake Victoria, contributes approximately 15% of the annual Nile discharge of 84 billion cubic meters at Aswan, Egypt, with fairly stable flow throughout the year. The Eastern Nile subbasin, centered in the Ethiopian highlands, contributes 85% of the annual discharge, in a highly seasonal pattern. It is here that the Abbay River (the Blue Nile) and the Atbara River originate. Despite being one of the longest rivers on earth and with a basin area comprising 10% of the African continent, the annual discharge of the Nile is relatively low through the 11 countries, making disputes over Nile River's

water use inevitable if science is not utilized effectively to manage the Nile River Basin water resources in an integrated manner, considering needs and other available water resources

The scarce waters of the Nile River are shared not only by the 11 Nile Basin countries, but also by the flora and fauna of a diverse range of ecosystems. The more voluminous Blue Nile has supported irrigated agriculture in Sudan and Egypt for centuries. Thus, in addition to providing water, food, and electricity access for nearly 100% of Egypt's population today, the long history of reliance on the Nile has created cultural significance for Egypt's national identity. On the other hand, rainfall on the Nile River Basin, averaging 1660 Billion Cubic Meters per year, has supported rainfed agriculture and groundwater recharge in upstream countries of the Nile Basin.

At the same time, there is growing desire of other countries, notably Ethiopia, where less than 30% of the population has access to grid electricity, to reap some of the benefits of the Nile River waters. In such a situation, disputes are predictable.

Cognizant of this transboundary nature of the Nile, the riparian countries have been trying to regulate its efficient and equitable use. In 1999, they started what is known as the Nile Basin Initiative (NBI). Headquartered in Entebbe (Uganda) and driven by the motto of "One River, One People, One Vision", and a common vision to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile basin water resources, NBI has been entrusted with the triple core functions of basin cooperation, water resources management and water resources development.

A high point in the trajectory of the NBI was attained in 2009 with the enunciation of the Cooperative Framework Agreement (CFA). This important document was designed to regulate "the use, development, protection, conservation and management of the Nile River Basin and its resources and establishes an institutional mechanism for cooperation among the Nile Basin States". It set out the principles of cooperation, sustainable development, equitable and reasonable utilization and peaceful resolution of conflicts. It called for an institutional framework for the implementation of the provisions of the Agreement by envisaging the setting up of the Nile River Basin Commission, which was meant to replace NBI. The CFA was opened for signature

in 2010 but has been ratified by only six out of the eleven Nile riparian states, namely Burundi, Ethiopia, Rwanda, South Sudan, Tanzania and Uganda.

These initiatives towards transboundary cooperation have been overshadowed in the past decade by the controversy surrounding the Grand Ethiopian Renaissance Dam (GERD), which was initiated by Ethiopia in 2011. The GERD is expected to be the largest hydroelectric power plant in Africa, providing significant relief to the energy shortage in Ethiopia where the per capita electricity consumption is a mere 77 kWh/yr. Egypt and the Sudan have objected to this development without a joint agreement on the filling and operation rules of the GERD, arguing that the filling/refilling and operation of the dam may seriously deplete the flow of water to the two downstream countries, especially during drought and extended drought years. Various efforts to come to an agreement on the GERD have come to naught. Agreement on operation rules of the GERD which include emptying and refilling of the Dam still remains an issue.

The African Academy of Sciences strongly believes that Science Diplomacy could bring peace and a lasting solution to the Nile Basin. As the continental Academy, the AAS has a huge convening power that can bring together the National Academies of Egypt, Sudan, and Ethiopia, as well as the Network of African Science Academies (NASAC) under one roof in the form of a Scientific Workshop or Symposium. At such a meeting, scientists from the Nile Basin Countries (including Egypt, Sudan, and Ethiopia) will be invited to present scientific papers covering all aspects of the benefits derived from use of the Nile River (e.g., tourism, food security, transportation, energy, etc.) as well as potential solutions to water use conflicts.

Professor Tsige Gebre Mariam (former President of the Ethiopian Academy of Sciences), Professor Mohamed Hag Ali Hassan (President of the Sudanese National Academy of Sciences), Professor Mahmoud Sakr (former President of the Academy of Scientific Research and Technology of Egypt), and Professor Norbert Hounkonnou (President of the Network of African Science Academies) have all agreed to the approach of using Science Diplomacy as a means to contributing to the resolution of conflicts related to Nile water use.

It is hoped that the envisaged scientific meeting will provide practical solutions based on scientific evidence that is acceptable to all stakeholders and interested parties. This way, Science Diplomacy could bring lasting peace and prosperity to the Nile Basin.

3 Format of the symposium

The meeting will be *in-presentia*.

The meeting shall be organized into plenary discussions and thematic sessions to highlight the progress made and discuss outstanding issues, lessons learnt, and possible solutions to transboundary Nile Water use conflicts. Specifically, the sessions shall be grouped into the following themes.

a) The Natural Science Basis

This workshop shall convene scientists working in natural science disciplines (e.g., hydrology, climate change, energy, mathematical modeling) to present the scientific basis relevant for Nile water use issues. Here, the scientists shall be invited to present their work and propose scientific solutions to consider for transboundary Nile water management.

b) The Social Science / Humanities Base

This workshop shall convene researchers coming from social sciences and humanities (e.g., anthropology, economics, geography, history, sociology) and provide the platform to analyze the issues and present their outcomes relevant for the resolution of Nile Water use conflicts.

c) Development of interdisciplinary recommendations

Borrowing from the outcomes from the two sessions above, a 3rd session shall be held to discuss how to combine natural science as well as social science/humanities proposals into policy-relevant recommendations (part of the main deliverable for the symposium).

4 Expected outputs and outcomes.

- a) A scientific workshop where stakeholders from various backgrounds and disciplines discuss progress made, lessons learned, and opportunities and solutions to address outstanding issues in transboundary Nile water management and related conflicts.

- b) Recommendations to policymakers and diplomats on how to resolve transboundary water use conflicts in the Nile River basin.

The proposed symposium serves as an example of how Science Diplomacy can be used to settle transboundary issues. The proceedings of the symposium shall be documented and shared widely for purposes of creating awareness and guiding policy.

5 Funding

The European Commission offers to fund the workshop through the Science Diplomacy contract of its Global Service Facility. This implies the use of the Global Service Facility as the contractor for the logistical aspects of the event. In particular, the European Commission offers to fund the following:

- Workshop organization (e.g., sending of invitations, registrations, website, taking minutes, on-site support, photography/PR, etc.) in close collaboration with AAS
- Catering for up to 30 participants
- Travel costs for up to 30 participants

The venue and videoconferencing facilities would be provided by AAS at the AAS Headquarters in Karen, Nairobi

6 Organizing Committee

- *Dr. Peggy Oti-Boateng, Executive Director, AAS*
- *Dr. Nkem Khumbah, Head of Strategy, Policy and Partnerships, AAS*
- *Dr. Laurent Bochereau, Science Counsellor of the EU to the African Union*
- *Dr. Jan Marco Müller, Team Leader Global Approach, Multilateral Dialogue and Science Diplomacy, DG Research and Innovation, European Commission*

7 Symposium Scientific Steering Committee

1. Dr. Hilary Inyang (FAAS, Nigeria), Chair
2. Prof. Sossina Haile (FAAS, Ethiopia/USA)
3. Prof. Bahru Zewde (FAAS, Ethiopia)
4. Dr. Khaled AbuZeid (Egypt)
5. Prof. Daniel Olago (FAAS, Kenya)
6. Prof. Youba Sokona (FAAS, Mali)

8 Symposium Agenda

23 October 2024

18:00-21:00 Arrival and Welcome Dinner

24 October 2024

08:30-09:00 Registration

09:00-10:00 Opening Ceremony

Moderator: Dr. Nkem Khumbah, Head of STI and Partnerships, African Academy of Sciences [confirmed]

Speakers:

Prof. Lise Korsten, President of the African Academy of Sciences [confirmed, online]

Dr. Laurent Bochereau, Science Counsellor of the EU to the African Union [confirmed]

Prof. Hilary Inyang (FAAS), Chair, Symposium Scientific Steering Committee [confirmed]

Prof. Daniel Olago, Coordinator of the 2015 NASAC report on Grand Challenges of Water Security in Africa [confirmed]

10:00-13:00 **Session 1: The Natural Science Basis**

10:00-11:15 Presentation by speakers (each 15' + 5' Q&A)

Moderator: Prof. Sossina Haile (FAAS) [confirmed]

Speakers:

- 1. Dr. Khaled AbuZeid, Senior Regional Water Resources Director, CEDARE [confirmed]*
- 2. Dr. Kevin Obiero, Kenyan Marine and Fisheries Institute [confirmed]*
- 3. Dr. Sebastian Sterl [confirmed, online]
European Commission, DG Energy / World Resources Institute*

11:15-11:45 Coffee Break

11:45-13:00 Panel discussion

Moderator: Prof. Sossina Haile (FAAS) [confirmed]

Panelists:

1. *Prof. Hesham Bekhit, Cairo University [confirmed]*
2. *Antoine Saintraint, European Commission, DG International Partnerships [confirmed]*

13:00-14:30 Lunch Break / **Group Photo**

14:30-17:30 **Session 2: The Social Science / Humanities Basis**

14:30-15:45 Presentation by speakers (each 15' + 5' Q&A)

Moderator: Hilary Inyang (FAAS), Chair, Symposium Scientific Steering Committee [confirmed]

Speakers:

1. *Dr. Yacob Arsano, Department of Political Science and International Relations, Addis Ababa University [confirmed]*
2. *Prof. Awa Niang-Fall, Cheikh Anta Diop University, Dakar, Senegal [confirmed]*
3. *Sarah Bebb, PhD candidate, University College London [confirmed]*

15:45-16:15 Coffee Break

16:15-17:30 Panel discussion

Moderator: Prof. Bahru Zewde (FAAS) [confirmed]

Panelists:

1. *Dr. Aref Gharib, Head of Nile Water Sector, Ministry of Water Resources and Irrigation, Egypt [confirmed]*
2. *Dr Abdulkarim Seid, International Water Management Institute [confirmed]*
3. *Dr. Sameh Afifi, Civil Engineer and Lawyer with a focus on water and environmental law, Colorado, USA [confirmed, online]*

17:30 Adjourn

18:00-19:30 Networking Dinner

25 October 2024

09:00-12:30 Session 3: Recap and Way forward

09:00-09:15 Recap of Day one: Dr. Nkem Khumbah (AAS)

09:15-09:45 *Prof Miroslav Veskovic, Novi Sad University (confirmed)*

EU Strategy for the Danube Region (EUSDR) - Lessons to be learnt for the Nile

09:45-11:15 Break out discussion about recommendations [All participants]

Three Themes to be considered by Steering Committee in advance

Group I – Moderator: Dr. Khaled AbuZeid

Group II – Moderator: Prof. Sossina Haile

Group III – Moderator: Dr. Hilary Inyang

11:15-11:45 Coffee Break

11:45-12:00 Presentation of group discussions

12:00-13:00 Plenary discussion on recommendations

13:00-13:15 Closing remarks

Group luncheon

List of participants

1. *Prof. Lise Korsten, President of the AAS [online]*
2. *Dr. Peggy Oti-Boateng, Executive Director, AAS*
3. *Dr. Nkem Khumbah, Head of Strategy, Policy and Partnerships, AAS*
4. *Dr. Laurent Bochereau, Science Counsellor of the EU to the African Union*
5. *Prof. Hilary Inyang (FAAS), Chair, Symposium Scientific Steering Committee*
6. *Prof. Daniel Olago, Coordinator of the 2015 NASAC report on Grand Challenges of Water Security in Africa*
7. *Prof. Sossina Haile, Walter P. Murphy Professor of Materials Science and Engineering, Northwestern University, USA (FAAS)*
8. *Dr. Khaled AbuZeid, Senior Regional Water Resources Director, CEDARE , Egypt*
9. *Dr. Kevin Obiero, Kenyan Marine and Fisheries Institute*
10. *Dr. Sebastian Sterl, European Commission, DG Energy / World Resources Institute [online]*
11. *Prof. Hesham Bekhit, Cairo University*
12. *Antoine Saintraint, European Commission, DG International Partnerships*
13. *Dr. Sameh Afifi, Civil Engineer and Lawyer with a focus on water and environmental law, Colorado, USA [online]*
14. *Dr. Yacob Arsano, Department of Political Science and International Relations, Addis Ababa University*
15. *Prof. Awa Niang-Fall, Cheikh Anta Diop University, Dakar, Senegal*
16. *Sarah Bebb, PhD candidate, University College London*
17. *Prof. Bahru Zewde (FAAS)*
18. *Dr. Aref Gharib, Head of Nile Water Sector, Ministry of Water Resources and Irrigation, Egypt*
19. *Dr Abdulkarim Seid, International Water Management Institute*
20. *Prof Miroslav Veskovic, Novi Sad University*