

An Integrated Approach to the Governance of Shared Watercourses in Africa

Session 1: East Africa Basins (Nile, Omo-Turkana)

Session 2: Southern Africa Basins (Zambezi, Limpopo)

Host : University of Aberdeen *, University of Aberdeen

Presenters

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Description

Body

Session Objectives, Justifications and Projected Outcomes

Nearly half of the population of Africa have no access to potable water; millions live without access to affordable, renewable and reliable energy resources; and food shortages and hunger continue to be rampant within some parts of the continent. Such realities are not for lack of potential. The World Bank (2019) outlines that less than 5% of the continent's cultivated land is irrigated, and only 10% of hydropower potential has been utilised. Therefore, while resources within the continent are rich, their management and utilisation are failing to provide vital lifeline services to the population. Shared watercourses underpin all of the aforementioned areas: water, food, and energy. Existing difficulties relating to the governance of such shared resources are now exacerbated by rapid population growth and climate change.

The **Nile Research Consortium**, together with the EU-H2020 project **DAFNE**, propose two interconnected Special Sessions focusing on East and Southern Africa. The sessions will bring together world leading expertise to present case studies which utilise progressive and innovative research methodologies to contribute to knowledge transfer and development within two regions of Africa.

The two special sessions will cover three key areas:

- 1) The merits of an integrated governance approach to shared water resources through the Water-Energy-Food (WEF) Nexus;
- 2) The opportunities and challenges associated with basin-wide cooperation and coordination among riparian states through the integration of international watercourses law and the Sustainable Development Goals (SDGs);
- 3) Potential for cooperation that integrates focus on transboundary basins and aquifers.

The sessions will discuss these key areas using transboundary case studies of the Omo-Turkana and Nile within Eastern Africa and the Zambezi and Limpopo within Southern Africa. They will draw on research which has taken place within major research projects, providing innovative methodologies and demonstrating up-to-date findings from work on the ground.

The **Omo-Turkana**, shared by Ethiopia and Kenya, has no legally binding framework to sustainably and equitably manage the shared resource. Yet, the basin is rapidly developing, bringing the need for benefit-sharing and cooperation as a result of major irrigation and hydropower schemes put in place upstream. Scholarship which analyses such developments exists at extremes of support or opposition, leaving a deficit of objective assessment relating to the merits and risks for the basin.

Cooperation in the **Nile** basin has increased significantly in the last decade. Riparian states have recognised the principle of equitable and reasonable use through establishment of the Nile Basin Initiative (NBI) and the Cooperative Framework Agreement (CFA). However, Sudan and Egypt opposed the CFA for not guaranteeing their 'historic' Nile water use. While scholars agree that a new legal order based upon contemporary international water law has been established in the Basin, its implementation remains contentious.

The **Zambezi** river basin has an emerging collaborative framework at regional and basin levels, primarily through the Zambezi Watercourse Commission (ZAMCOM) which is working to coordinate the management of the watercourse across all riparian states. Attempts have been made to ensure that water governance is conducted in a manner which is integrated across a number of sectors; namely through Integrated Water Resource Management (IWRM). Yet, difficulties with implementation of such frameworks remain.

The **Limpopo**, shared by four southern African countries, is an example of a closed basin in which the main stem and key tributaries routinely run dry for large portions of the year. Similar to several other shared watercourses in the region, basin-wide cooperation has emerged and grown incrementally in the 21st century. There remains considerable need to further enhance cooperation and, in particular, to build on strides towards conjunctive management of both surface and groundwater in the basin.

How the Session will be organised and by whom

Two 90 minutes special sessions are proposed. The length of each presentation will be altered depending on the final number of speakers but is expected to be 15 minutes. Presentations will be followed by panel discussion and interaction with the audience.

Session 1: East African Basins

- 1) G. Trombetta, M. Giuliani, and A. Castelletti, Politecnico Milano, '*Exploring multisectoral synergies and trade-offs in dam filling in transboundary river basins: a case study in the Nile*'
- 2) Z. Yihdego & J. Gibson, '*Benefit-sharing and frameworks for cooperative transboundary governance in the Omo-Turkana*'
- 3) K. Wheeler, M. Basheer, G. Abdo and J. Hall, University of Oxford, University of Manchester, University of Khartoum, '*Supporting transboundary planning through flexible modelling frameworks: Multi-year drought management for the Nile River Basin*'
- 4) University of Nairobi/ACCESS, '*Assessment of Vulnerability of Water Resources to Environmental Change in Africa: River Basin Approach*'

5) F. Kleinschroth, ETH Zurich, '*Global narratives on African river basin management*'

Session 2: Southern African Basins

1) S. Salman, '*The Nile River Basin and its Changing Legal Contours*'

2) A. Rieu-Clarke, '*The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) within an Africa context – lessons learned and future prospects*'

3) J. Lautze/IWMI, '*Conjunctive Water Cooperation in the SADC Region: Emerging Experiences*'

4) S. Cazzaniga, F. Bertoni, M. Giuliani and A. Castelletti, '*Assessing present and future value of cooperation across sectors in the Zambezi river basin*'

5) J. Gibson & Z.Yihdego, '*An integrated approach to water governance in the Zambezi: lessons and prospects*'

6) P. Burlando, S. Sinclair, E. Weber, G. Battista, M. Botte, ETH Zurich '*A distributed approach to model the Water-Energy-Food-Environment Nexus development pathways and evaluate their impacts: conceptualisation, application and evidence in African basins*'

Projected Outcomes

The papers and discussions will ultimately lead to a special issue journal or an edited book publication.

Alignment with Congress

Each of the case studies is unique; with different levels of legal and institutional frameworks, development needs and financial resources. They provide an opportunity to look at the strengths and challenges of River Basin Organisations within four key basins (*theme E.4*). Each paper presented will provide an understanding of how to balance critical water needs (*theme A.1*) with notions of equity, legal frameworks, scientific evidence and economic need (*theme B.2*). Reflections will be made upon the progress within each basin in policy, law and institutional reform (*theme E.3*). The sessions will also highlight the importance of interdisciplinary research for the implementation of global policy objectives and innovative forms of policy and practice (*theme D.3*).