



Tropentag, September 20-22, 2017, Bonn

“Future Agriculture:  
Socio-ecological transitions and bio-cultural shifts”

## Addressing Transboundary Cooperation in the Eastern Nile through the Water-Energy-Food Nexus: Insights from an E-Survey and Key Informant Interviews

HELEN BERGA PAULOS<sup>1</sup>, CLAUDIA RINGLER<sup>2</sup>, ELIZABETH BRYAN<sup>2</sup>, HAGAR EL DIDI<sup>2</sup>, SARA  
ELNASIKH<sup>3</sup>

<sup>1</sup>*University of Bonn, Center for Development Research (ZEF), Department of Economic and Technological Change, Germany*

<sup>2</sup>*International Food Policy Research Institute (IFPRI), United States of America*

<sup>3</sup>*Economic and Social Research Bureau, Sudan*

### Abstract

The Nile is the lifeblood of northeastern Africa, and its importance for and dependency of the national economies it traverses and binds together grows as it moves from source to sea. With rapid economic development, population growth, irrigation development, rural electrification and overall economic growth, pressures on the Nile water resources are growing to unprecedented levels. These drivers of change have already contributed to stark changes in the hydropolitical regime and new forms of cooperation and cross-sectoral collaboration are needed particularly in the Eastern Nile Basin countries of Egypt, Ethiopia, Sudan and South Sudan. As direct sharing of water resources is hampered by unilateral developments, scope has increased for broader, cross-sectoral collaboration around the water, energy and food sectors. This paper uses an e-survey, supplemented with key informant interviews geared toward national-level water, energy and agricultural stakeholders, chiefly government staff and researchers, to understand challenges of and opportunities for cooperation across the water-energy-food nexus nationally in Egypt, Ethiopia and Sudan as well as regionally across the Eastern Nile. Findings from the survey tools suggest that most respondents strongly agree that collaboration across the water, energy and agriculture sectors is essential to improve resource management in the region. At the same time there is ample scope for improvement in collaboration across the water, energy and food sectors nationally. Ministries of water, energy and food were identified as the key nexus actors at national levels; these would also need to be engaged in regional cross-sectoral collaboration. Respondents also identified a wide range of actions and investments across the water, energy and food sectors – both for national and regional, joint investments. Chief investments include among these are joint planning and operation of multi-purpose infrastructure, investment in enhanced irrigation efficiency, joint rehabilitation of upstream catchments to reduce sedimentation and degradation, and investment in alternative renewable energy projects, such as wind and solar energy.

**Keywords:** Eastern Nile Basin, stakeholders, water-energy-food nexus