

WESA Project
Water and Energy Security in Africa

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PAUWES

**RESEARCH 2 PRACTICE
FORUM 2018**

**ENERGY, WATER SECURITY
AND CLIMATE CHANGE IN AFRICA**

**16th - 18th APRIL, 2018
TLEMEN, ALGERIA**



African Union Commission



Federal Ministry
for Economic Cooperation
and Development



Federal Ministry
of Education
and Research

Supported by:

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DLR Projektträger

DAAD



Pan African University
Institute of Water
and Energy Sciences



UNITED NATIONS
UNIVERSITY
UNU-EHS
Institute for Environment
and Human Security



Center for Development Research
Zentrum für Entwicklungsforschung
University of Bonn

ITT

Institute for Technology and
Resources Management in
the Tropics and Subtropics



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□ Outline

- ❖ Project Overview
- ❖ Facts
- ❖ Research Areas in the Study Areas
- ❖ Key Activities and Events
- ❖ Expected Results
- ❖ Partners

□ Project Overview

- ❖ Project aims at supporting the development of PAUWES
- ❖ Focus on the development of innovative research methods - adapted and applicable in Africa
- ❖ First step toward the realization of the research agenda at PAUWES
- ❖ Offers PAUWES graduates the opportunity to conduct PhD studies
- ❖ Establish PAUWES as a Pan African (and beyond) hub/platform

□ Facts

- ❖ **Sector:** Water & Energy (Engineering and Policy)
- ❖ **Countries:** Algeria, Germany, Benin, Togo, Ghana, Ethiopia
- ❖ **Period:** 1 Nov 2016 - 31 Dec 2019
- ❖ **Budget:** Approx. 2,65 Mio €
- ❖ **Funding Partner:** German Federal Ministry for Education and Research (BMBF)

□ Research Areas in the Study Areas

Water Policy and Engineering

- Impact of land use change and climate change on water balance and sediment yield.
- Integrated water resource management in transboundary river basins.
- Integrated water resources management and improvement of basin functionalities.

Energy Policy and Engineering

- Design of hybrid power plant with policy and regulatory frameworks formulation for renewable energy intervention in Africa.
- Analysis of standards for energy distribution systems and disaster risk reduction.
- Managing the dynamics of electricity supply and demand during power shortages.
- Energy transition, technological and regulatory strategies for the deployment of renewable energies.
- Exploring the feasibility and potentialities of hydrogen production coupled with solar energy.

□ Key Activities and Events

- ❖ Support 8 PhD students at PAUWES to pursue doctoral studies in water and energy (Engineering and Policy) in collaboration with partners.
- ❖ Research and case studies
- ❖ Online and face-to-face events to strengthen cooperation with PAUWES and contribute to Agenda 2063 of the African Union.

Expected results

- ❖ Graduation of PAUWES PhD researchers in Water and Energy
- ❖ Support to use the skills to respond to societal challenges
- ❖ Advancement of knowledge in water, energy and climate change through the research conducted in various Africa countries.
- ❖ Integration of PAUWES into scientific networks
- ❖ Develop PAUWES into a Pan African and global hub/platform for water, energy and climate change research and practice.

□ Project Partners

- ❖ Pan African University - Institute of Water and Energy Sciences (PAUWES)
- ❖ United Nations University – Institute for Environment and Human Security (UNU-EHS)
- ❖ University of Tlemcen
- ❖ Institute for Technology and Resources Management in the Tropics and Subtropics (ITT) at the TH Köln (University of Applied Sciences)
- ❖ Center for Development Research (ZEF) at the University of Bonn (UB)

As researchers or practitioners what are the possible interactions/collaboration with practitioners resp. researchers to improve/upscale your activities

- ❖ Conducting research
- ❖ Exchange research stay by Students and Staffs
- ❖ Organise scientific events e.g. summer schools, conference
- ❖ Give lectures to PAUWES Students

What are the potential aspects of the research that can be transformed into practice?

❖ Pilot research

❖ Participating research

Thank you for your Attention