



Pan African University Institute For Water  
And Energy Sciences (Including Climate Change)  
– PAUWES –

# A Pan African Research Agenda on Water, Energy and Climate Change RERIS 2018 - Lesotho



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Dr. Erick Tambo

25<sup>th</sup> January 2018

# Agenda



- Introduction to PAU as flagship project of the African Union
  - Objectives
  - Mission and scope
  - Thematic Areas and Locations
- Presentation of PAUWES
  - PAUWES Master Programs
  - Overview of Cooperation
- Presentation of the PAUWES Research Agenda
  - Vision and Focus of research
  - Research Priorities
  - Implementation of the Research Agenda

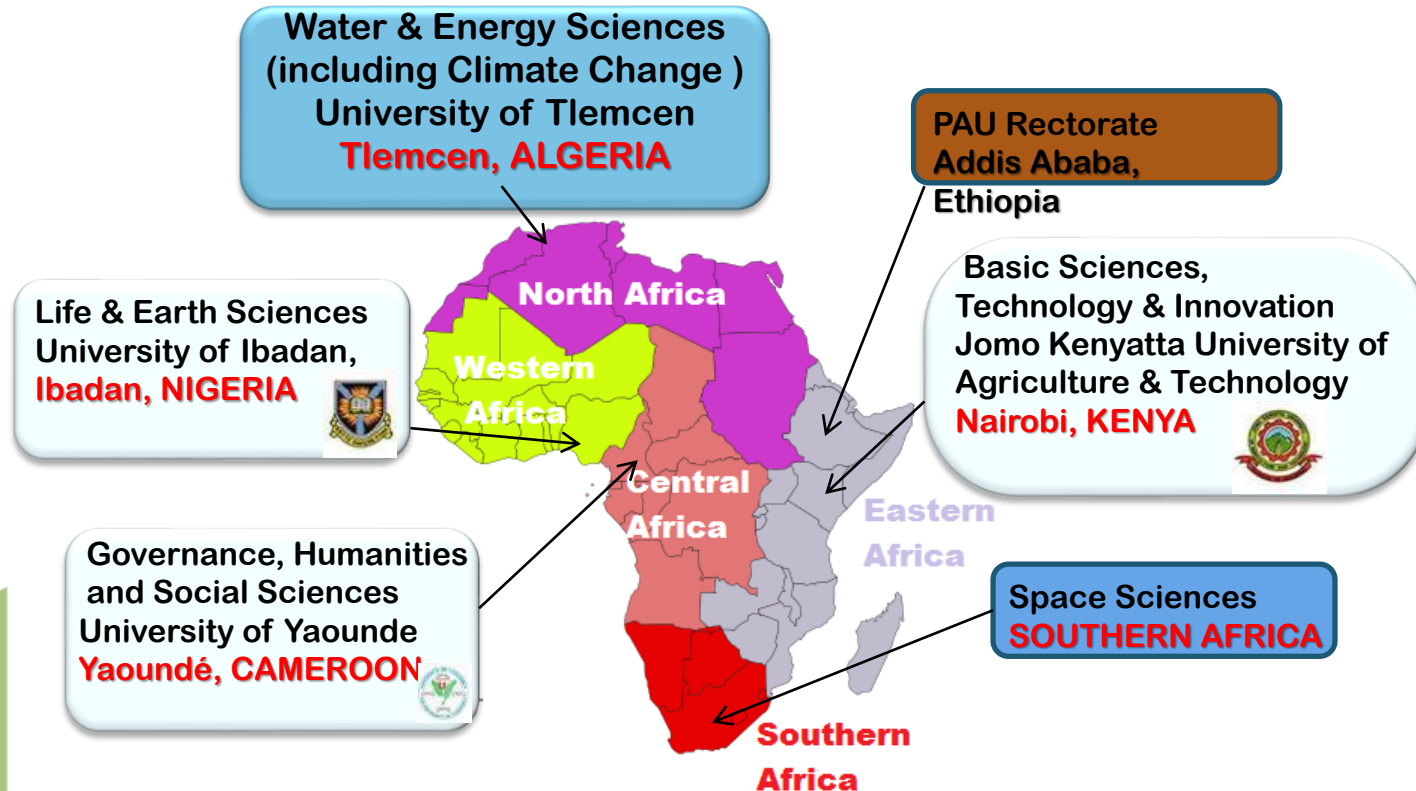
- The **Pan African University (PAU)** is pan-African internationally acknowledged network university contributing to the development of higher education and applied research for the sustainable socio-economic advancement in Africa.
- PAU is a response to :
  - ✓ the urgent need to revitalize higher education and research as major tools for ensuring high level HR and intellectual capital for **Africa's development**,
  - ✓ to promote **world class** and yet locally relevant research
  - ✓ to provide an exemplar for excellence in African HE and research
- Academic and Scientific Arm of the African Union

# Missions and Scope of PAU

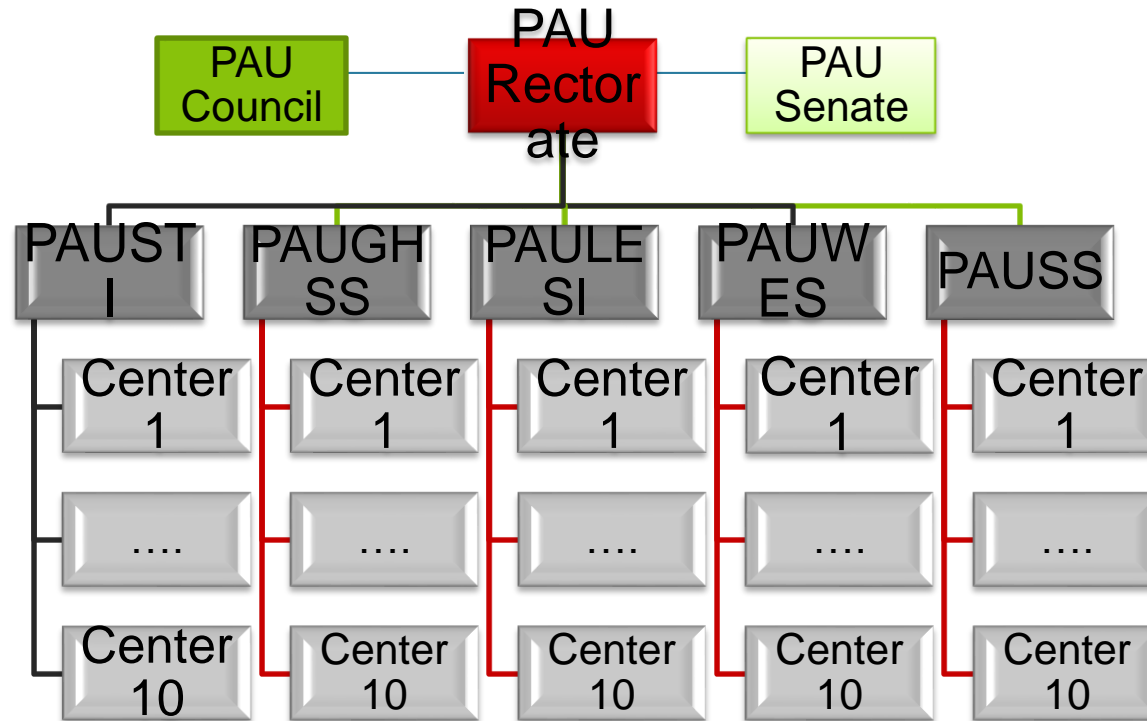


- Develop continental-wide and world-class graduate curriculum;
- Development *oriented research* in areas having a direct *bearing on the development of Africa*;
- Enhance the attractiveness of African HE and research institutions for effective development and retention of young African talent,
- Attracting the *best intellectual capital* (including *African Diaspora*);
- Facilitate *the acknowledged networking* and the *mobility of students and academic staff* between African academic institutions;
- Invigorate dynamic and productive partnership with **public and private sectors**.

# Thematic Areas and Location



# PAU Structure



**05 Institutes & 50 satellites centers**  
**+01 host country for PAU rectorate**

**→ 55 states members of AU**



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# Presentation of PAUWES



27<sup>th</sup> October 2017

# Host University Selection



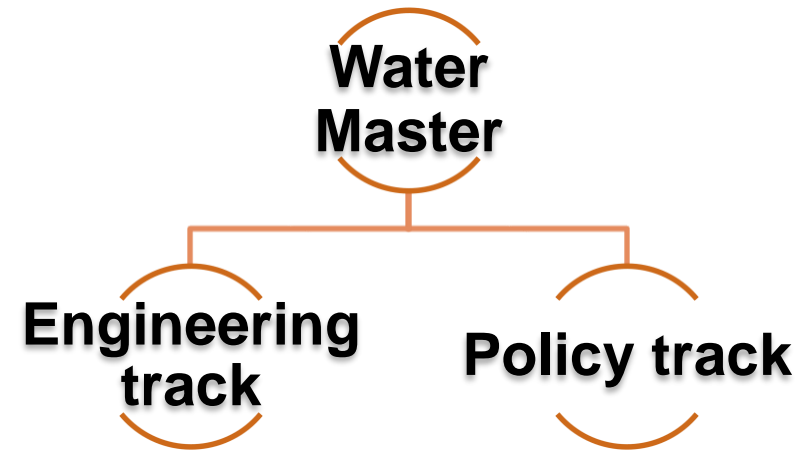
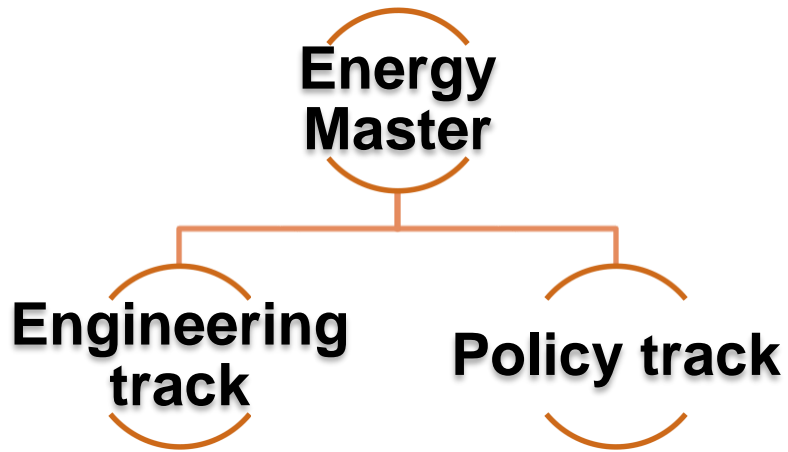
Pan African University  
Institute of Water  
and Energy Sciences



**African expert panel from AUC  
28<sup>th</sup> Feb. 2012**



# PAUWES Master Programs



Bologna standards, Joint Degree  
PAU and University of Tlemcen

- 4 Semester, 120 credits
- 30 credits / semester
- 30 credits / thesis



# 04 cohortes of students



- Academic quality
- Gender
- Regional balance/AU state members representation

## 1<sup>st</sup> Cohorte 2014

- 26 students
- Gender (12)
- 12 countries

## 2<sup>nd</sup> Cohorte 2015

- 47 students
- Gender (11)
- 21 countries

## 3<sup>rd</sup> Cohorte 2016

- 78 students
- Gender (13)
- 25 countries

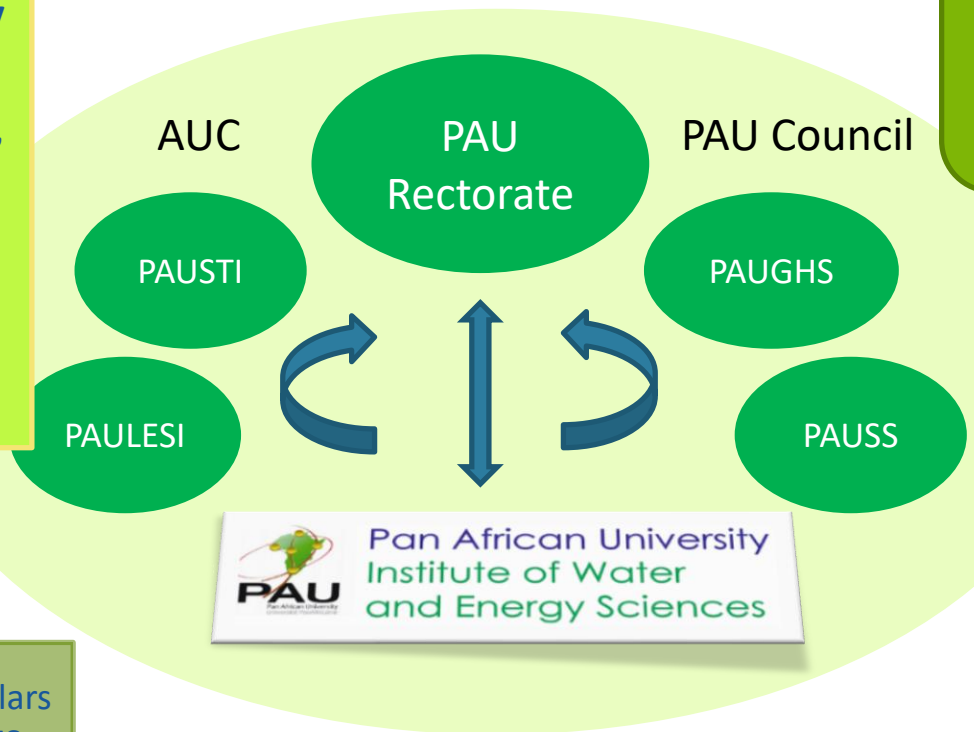
## 4<sup>th</sup> Cohorte 2017

- 70 students
- Gender (26)
- 28 countries

**06 PhD**  
**WESA project**  
**Tripartite project**

# Overview of Cooperations

MESRS/University of Tlemcen  
PMU, admin staff, expertise, Infrastructures (12M€), students services, Equipment



AUC contributions :  
Salary of Director, top-ups and operat. budget

**BMBF – approx. 3,5 Mio**

IB: Research Agenda Development (workshop series)

WESA: Research project (UNU, ZEF, ITT, UoT)

RARSUS: cooperation project with ITT

African individual scholars working with PAUWES (curriculum development / committees)

Short Term Lecturers of PAUWES (from Africa/international)

First links with public/private/civil society sector

First links with African and international academic networks

**BMZ – approx. 41 Mio EUR (PAU// PAUWES)**

Technical Coop.	GIZ (support on site across all processes of PAUWES in teaching, institutional development, cooperations). Including DAAD partnersh.
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Financial Coop.	KfW (financial support for stipends, short term lecturers, infrastructure). Implementation consultant: GITEC
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# Presentation of Research Agenda



27<sup>th</sup> October 2017

# Vision and Focus Research at PAUWES

- PAUWES commits to having a strong application-oriented focus.
- Perform qualitative and quantitative research which is not only demand-driven but also innovative and creative at the same time
- Provide science-based advice to policy makers at a national, regional and Pan-African level;
- Providing scientific knowledge for existing strategies at Pan African and International level
- Think-tank and leader in shaping future strategies
- Capitalisation on the youth dividend on the continent and foster research leading to entrepreneurship or creation of start-ups to generate employability and income in African countries.

# Research Agenda in context of African Union Strategies

- African Union Agenda 2063 (African Union Commission 2016)
- AU Science, Technology & Innovation Strategy for Africa 2024 (STISA 2014)
- Africa Water Vision 2025 (UNECA 2025)
- African Strategy on Climate Change (African Union 2014)
- United Nations Sustainable Development Goals (UN-SDGs) of 2030, UNECA (UNECA 2015)
- AU/NEPAD African Action Plan 2010–2015 (NEPAD 2011)
- The Grand Challenge of Water Security in Africa (NASAC 2014)
- African Development Bank – Policy for Integrated Water Resources Management (AfDB 2000)

# Research Agenda Development Process



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19th -21st October  
2015

**BMBF-PAUWES**  
Kick-off Workshop  
for the  
Development of the  
PAUWES Research  
Agenda

*Tlemcen, Algeria*

Nov 2015 – May  
2016

Input for the  
PAUWES research  
agenda developed  
in more concrete  
terms through  
virtual interactions  
within the working  
groups and  
involving further  
experts

10th -11th May  
2016

Research  
Agenda  
Consolidation  
workshop

The second  
workshop with  
experts of the  
kick-off  
workshop  
serving as a  
forum to  
formulate the  
experts' input  
for the research  
agenda in more  
detail

*Germany*

May 2016 – Oct  
2017

Input for the  
PAUWES  
research agenda  
developed in  
more concrete  
terms through  
using a virtual  
work-flow  
within the  
working groups  
and through  
involving  
further experts

27th Oct 2017

Presentation  
and validation  
of PAUWES  
research agenda  
to political  
stakeholders at  
the African  
Union

*Ethiopia, Addis  
Ababa*

# Research Priorities - Energy



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- Energy Resources Assessment
- Technological Development
- Energy Economics and Energy Policy
- Energy Stakeholders and Society
- Energy, Water, Food Security and Climate Nexus





# Research Priorities - Water

- Water and food security: long-term food production and sustainable livelihoods
- Water management:
  - Basin water management
  - Urban water management
- Water and environment: water-related hazards and health
- Water economy and governance



# Research Priorities – Climate Change

- Climate Impact Modelling, Downscaling and Prediction of Climate Change
- Vulnerability Assessment
- Adaptation Research
- Mitigation Research
- Risk Assessment



# Research Priorities – Nexus



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- Water-Energy Nexus
- Energy-Climate Nexus
- Water-Climate Nexus



# Cooperation Opportunities



Pan African University  
Institute of Water  
and Energy Sciences

Teaching: Short Term Lecturers, Supervision of MSc Thesis, Placement for Internship, PhD Opportunities

Research: Joint research Project, College of research associates , Visiting Scientist and Volunteer Program

Database of funding Programs and Institutions, Database of Researchers and Innovations Hubs in Africa

Strategic Networking: Pan African and Regional Institutions, Center of Excellence in Africa and Abroad, Private Sector / Industries

International Events: PAUWES Symposium 2016, RERIS 2017, Research 2 Practice Forum 2018

PAUWES Online CoP: Communication, Sharing, Jobs, Webinar Series, etc.

# Interaction with transnational organization, institutional (policy) and societal players



Pan African University  
Institute of Water  
and Energy Sciences

- The African Union Commission for Human Resources Science and Technology
- The African Union Commission for Infrastructure and Energy
- NEPAD and their subsidiary bodies
- African Development Bank and their subsidiary bodies
- Regional integration institutions, economic and political institutions, e.g. ECOWAS, EAC, SADC
- United Nations agencies and programmes related to water, energy and climate
- Development agencies e.g. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), European Union (EU), Department for International Development (DFID), etc.
- Water Users Associations, Civil Society Actors

# We trust to PAUWES



## Contact:

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Online Community of Practice: <http://pauwes-cop.net>

Thank you  
<http://pauwes.univ-tlemcen.dz>