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Institute for Technology and Resources Management in the Tropics and Subtropics





PAUWES

RESEARCH 2 PRACTICE FORUM 2018

ENERGY, WATER SECURITY AND CLIMATE CHANGE IN AFRICA

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

FORUM REPORT









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SUMMARY REPORT ON THE RESEARCH TO PRACTICE FORUM

The Research to Practice forum was jointly organized by the Pan African University Institute for Water and Energy Sciences (including Climate Change) (PAUWES) with support from the German Government and in cooperation with a consortium of German universities (UNU-EHS, ZEF and ITT) led by the United Nations University Institute for Environment and Human Security (UNU-EHS) and the University Abou Bekr Belkaid in Tlemcen, Algeria, from 16-18 April 2018. The forum was set up in order to promote and support applied and practice-oriented research and strategic partnerships on renewable energy, water and climate change in Africa.

The Research-2-Practice forum provided a platform for experts/scientists, education leaders, decision makers, entrepreneurs, private and public sector, policy makers, civil society actors and Institutions interested or active in applied and practice-oriented research for development to discuss state of the art, challenges and innovative solutions in the areas of renewable energy, water and climate change and build strategic partnerships in Africa. The forum was in line with actions for the implementation of the cooperation and research strategy which further complemented African Union goals to promote and support knowledge sharing and cooperation to addressing development challenges including leveraging opportunities for innovation.

The forum was attended by approximately 180 participants, among them were 45 research experts from various institutions. The Forum was chaired by Prof. Abdellatif Zerga, Director PAUWES and Prof. Jakob Rhyner, Vice Rector in Europe of the United Nations University and Director UNU-EHS. Among the participants were leaders from various organizations and companies, including Dr. Beatrice Njenga, Head of Education Division African Union Commission Human Resources Science and Technologies (AUC-HRST), Mrs. Anna Akeledo, Executive Officer of the umbrella association of Technology and Innovation Hub in Africa (AfriLabs). Furthermore, there were policy experts from both water and energy sectors, approximately 25 poster presenters from PAUWES, University of Tlemcen, and other Universities within Africa and Europe. The Forum was also a platform for students both from PAUWES and University of Tlemcen, among $P a g \in | 2$









Pan African University Institute of Water and Energy Sciences



them 35 energy track students and 32 water track students. There was good gender balance with approximately 40% of the participants being of female gender.

The event comprised plenary and thematic sessions (Energy, Water and Climate Change), discussions and interactive sessions, networking events, as well as poster pitches and poster presentations. The welcoming notes were given by the University of Tlemcen (UoT) Rectorate representative, African Union Commission Human Resources Sciences and Technology (AUC-HRST), German Federal Ministry of Education and Research (BMBF) and the two Chairs of the forum. The scene was set by two keynote presentations on the "AU context on Education, Applied Research and Evidence Based policy for Agenda 2063" by Dr. Njenga, and "Technological Innovations in Africa: Tech-Hub as driver of innovation and changes in Africa" by Mrs. Akeledo. Notable speakers on "Applied Research and Research to Practice in Africa" included the UNESCO Division of Water Science Coordinator NEPAD Networks of Water Centers of Excellence, Mr. Biedler and a skype presentation by the Director Africa Energy Commission (AFREC), Mr. Marzouk. The thematic presentations were divided into three parallel sessions of energy, water, and climate change. Presentations on these three sessions focused on water and energy security in Africa in the afternoon of the first day and the priority of PAUWES research agenda in energy, water and climate change in the afternoon of the second day. Other topics that focused on researchers and practitioners' interests included presentations on funding opportunities for research in Africa in the morning of the second day and discussions on how to shift from practice to entrepreneurship on the morning of the final day.

Notable outcomes were the numerous possibilities for more strategic partnership in the research, practice as well as policy arena for PAUWES and other research institutions within Africa and internationally. Propositions for collaboration and partnership with PAUWES included internships and support in innovation hubs such as AfriLabs to develop their master thesis projects into product and business opportunities that can be implemented back in the students' home. Suggestions were also made for collaborations in terms of internships offers for PAUWES students of the water track by African Water Association (AfWA) in the pool of their 3000 members









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(National Water Authorities, Water Users Association, Supplier and developer of equipment, toilet drainers company, etc.). The participants were enlightened on the various funding model and grant opportunities for research to practice in Africa by the German Government through the BMBF such as GAIIA, PRIMA, CLIENT II, GRoW, etc. and the Islamic Development Bank (ISDB) where suggestions were made on possible partnership opportunities through which ISDB could collaborate with PAUWES such as internships and placement of students in projects funded and implemented by the bank, young professional programs, scholarships and funding for research and appraisals, etc. in the future. Africa Funded CEO, Ms. Reus suggested possible collaboration with PAUWES entrepreneurs to launch innovative business models through venture capital, equity funds, in addition to assisting them in obtaining research internships opportunities. Participants were also briefed about a participative database for grant opportunities in the fields of water, energy and climate change which was set to be developed and would be launched and made accessible through the PAUWES Online Community of Practice Platform (PAUWES CoP). The National Coordinator, UK Low Carbon Energy for Development Network (LCEDN), Mr. Brown suggested future collaborations and partnership with PAUWES in terms of research and innovation. It was also noted that LCDEN had offered internships for both former and current PAUWES students. There was a suggestion on proposed collaborative projects between PAUWES and Strathmore University in common areas of research interest such as projects on renewable energy and water through Strathmore Energy Research Centre so as to integrate tech-hub into their system. Seven projects ideas which were highly realistic and achievable within a period of maximum three years were discussed and drafted jointly by experts and students thus building a good basis for potential cooperation. Some of the seven projects were Urban farming and Hydroponics; Water Efficiency in Agriculture; ICT use in water and sanitation; etc.

The forum contributed to consolidating and improving the PAUWES research agenda by bringing both research practitioners and practiceoriented experts together. The forum linked research and development as contributions to achieve goals of the agenda 2063 which is a priority for the Pan African University (PAU) of the African Union. It improved the

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integration of PAUWES into scientific networks in Africa and beyond and established PAUWES as a Pan-African (and beyond) hub/platform for the topics of water, energy, climate change and their nexus.

Some of the recommendations from the forum in terms of inter-university partnership was that it would be desirable to have the next forum in another Pan African University such as PAULESI, dealing on Agriculture and Health which are complementary to PAUWES topics, so as to strengthen the link and foster cooperation between PAU institutes and show the integrated approach of the concept. Recommendations were made to African policy makers to improve support on research work. It was noted that most African countries provide less than 1% of their respective national budgets for research activities and thus to improve the quality of research there was need for betterment of the financial support. Participants also saw a need to further develop entrepreneurial skills in research, by not only having it as a subject in the curriculum, but also supporting the students to collaborate with entrepreneurs and innovators in energy, water science, and climate change so as to nature their ideas and transform them to real business and/or projects that they can undertake in their own home countries once they leave PAUWES. In this respect, AfriLabs proposed to collaborate and partner with PAUWES to support the further development of their master thesis project projects in their innovation hubs. It was also suggested that in order for research to create an impact on the people, there was need to align research projects to address local challenges in the communities in terms of water and energy security and climate change, and that the findings should be communicated back to the people so that they can utilize them to change the situation. Furthermore, suggestions were made on the need to integrate Tech-hub into the university system and culture since the global trends show that the future technology will be more open, digitized and highly adaptive.

In conclusion, the event was successful and based on the outcomes, it achieved its intended goals and objectives. Vital lessons were learnt and new partnerships and collaborations were made both at individual level and institutional capacity. The forum strengthened the PAUWES research Agenda and the institution's key role in providing scientific and technological solutions to support a sustainable socio-economic





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