

Session: Monday 16 April – Applied Research and Research to Practice in Africa

RESEARCH TO PRACTICE IN AFRICA – EXPERIENCE OF A PRACTITIONER

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1. Introduction

Due to increasing challenges and inadequate solutions to the demand for stronger linkages between research, policy and practice in water and related development sectors, the PAUWES Research to Practice is opportune. The conference offers a great opportunity for experts in the water and energy sector to debate the subject and offer concrete pathways to bridge the gap between research and practice. Conventional thinking is that linkages between research, policy and practice are considered one-directional, static knowledge flows, such as research uptake and disseminate their findings to inform policies and practices. The format and range of participants from researchers to policy experts and practitioners in the PAUWES forum which enable researchers and practitioners to jointly discuss this subject indicate that the straight-line thinking is changing. Researchers and practitioners need to share, use and contribute to each other's knowledge development and co-create, new knowledge.

As a practitioner, I have learnt over the years that raising the stock of knowledge and improving existing techniques and methods in the development of water, energy and climate change science plays a major role in the progress and effectiveness of professional practice. My intervention is to raise questions and then provoke discussion.

2. Experience at the African Developing Bank

Experience at the AfDB indicates that the institution undertakes minimal development research on its own, at best the Bank undertakes some research on bigger issues of regional and national development at the macro-economic level. This is undertaken by the research department of the Bank. Over the decades, the AfDB has prioritized infrastructure development as the engine of growth of African economies. The Bank, however has developed comprehensive long-term policy documents, such as the Long-term Strategy, and the New Business Development Strategy. The AfDB also undertakes major studies, which should be grounded in explicit knowledge from research. I remember during the operationalization of the Long-term Strategy the water experts struggled to find up-to-date literature on some of the most intractable issues affecting water and sanitation development. Some of these include:

- Striving for universal access to water and sanitation, more specifically, how can African cities meet the water and sanitation needs with a galloping population, increasing land and water pollution and the vagaries of climate change?

- How does Africa finance the implementation of water and sanitation SDGs - Does money really matter in this endeavor or is it more of institutional development and using innovative financing mechanisms?

The Bank's major studies on some contemporary issues, such as the Agricultural Water Use Study, co-funded by the FAO and the World Bank raised more questions than answers! The multi-million-dollar study revealed that maintaining existing irrigation infrastructure was more important than building new schemes. This is because existing schemes were poorly designed and managed leading to major inefficient irrigation practices. There can be no progress in irrigated crop productivity without resolving the great inefficiencies in current irrigation practices. Again, research is a place to turn to under these circumstances to unearth the deep-seated solutions to effective Agricultural Water Use. A fraction of the funds spent on this major study could have been used in applied research to uncover many insights on the questions on suspense in this study.

Big financing institutions such as the AfDB and World Bank need not undertake research themselves to solve contemporary developmental problems. All they need to do is to partner with existing research institutions such as PAUWES and Think Tanks so that these organisations can research solutions to issues in the various sectors. This way there is a constant flow of knowledge on how to solve the continent's myriad development challenges.

3. Experience at the African Water Facility

The African Water Facility at the AfDB has financed a few water research initiatives in collaboration with partners. One such research is captioned GICRESAIT –« **Gestion intégrée et concertée des ressources en eau des systèmes aquifères d'Iullemeden, de Taoudeni/Tanezrouft et du Fleuve Niger** » or in English "*Integrated Management of the water resources of the aquifer Systems of Iullemeden, de Taoudeni/Tanezrouft and the Niger River*". A research project that assessed and determined the water resources dynamics between the groundwater aquifer systems of Iullemeden (SAI), Taoudeni/Tanezrouft (SAT) and the Niger River with the view to preparing a master plan that considers climate change. I can give details of the findings when there is interest and time during the forum.

The African Water Facility has also supported research and academic pursuit by offering scholarships for students to undertake post graduate studies in Water Engineering at the 2IE Regional University in Burkina Faso.

4. Experience in my Private Practice

I have retired from being a full-time staff of the AfDB and because I am not tired I practice as a consultant. I write a lot of policy documents, preparation of projects and evaluation of projects. I have often been confounded on several development issues, which have been pandered around as paradigms without any objective well researched evidence. I

am currently doing work on Transboundary Water Resources Management. One such adage is that transboundary water resources development and management can foster regional integration and development of African economies. I ask, “Where is the evidence”?

I need analytical work to **demonstrate how water resource investment at the transboundary level could increase the productivity** of, and reduce risk to, national economies and regional integration.

5. Insight on Research, Policy and Practice

Partnership needs to be built between researchers, policy and practitioners to enable mutual benefits of the research agendas of research institutions and practitioners. For a start, repeated interactions focused on learning, such as through forums, debates and dialogues, can strengthen these linkages and contribute to an understanding of each other’s contexts and knowledge needs. This means that knowledge-sharing activities should have interactions between individuals and an understanding of each other’s contexts at their core. This can then be followed by joint research on topical issues.

I thank you for your attention.

RANDOM COMPILATION ON RESEARCH TO PRACTICE FROM THE LITERATURE

a. Role of Applied Research

The idea that investment in research is a major determinant of the quality of development applications long-term impact is a well-established paradigm in the literature with wide theoretical and empirical support. Applied research in general confers clear and important long-term benefits on society. The advance of science-based applied research continues to play a major role in the progress of practitioners by raising the stock of knowledge and improving existing techniques and methods in development, such as water, energy and climate change science. The link between applied research and good development practice has been made abundantly clear in the PAUWES Research Agenda note.

b. Challenges of Research to Practice

Scholars are constantly researching and discovering and summarizing new knowledge. However, the work is published in the most “prestigious” outlet that will accept the work with little regard for whether that outlet is optimal for practitioner consumption of the research. This is because scholars are typically rewarded for going through the peer-review process. Peer-reviewed publications are typically written for and read by other scholars, not practitioners. And although researchers know the value of this research and firmly believe that it can improve practices, the reality is that because they are not speaking in the practitioner’s terms in disseminating the research and whether the practitioners are likely to look for it, the gap will remain.

To solve problems practitioners, (especially Engineer) often consult trade magazines, think tank publications, popular news outlets, and industry best practices to find the answers that they need. Why should they spend time trying to decipher the practical implications of an academic article that was written for a scholarly audience?

The gap between research/theory and practice can be largely attributed to the different priorities of scholars and practitioners. Scholars want to be well-respected within the research community. Practitioners want answers to the issues that they face in the workplace.

In the ideal world, practitioners would read the same publications that scholars gain recognition, promotion, and tenure for publishing in. Through some medium, such as blogs, practitioners and scholars can actively exchange ideas

c. Transferring research to practice: Knowledge Transfer and Exchange

The direction is based upon a model that favours knowledge exchange (as opposed to one-way producer push or user pull models). In the knowledge exchange model, relationships are built and nurtured between those who produce research and those who might use research knowledge to enable an exchange of information, ideas and

experience. Integral to the exchange is researchers helping audiences to build capacity to use research knowledge and audiences helping researchers work be more relevant.

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The “exchange model” of knowledge transfer requires that relationship exists between those who generate research knowledge and those who might put the knowledge to use. Such relationships are characterized by regular exchanges of information, ideas and experience.