

Evidence Matters: Opportunities and challenges for science advice in the making of household energy policy in Nigeria

1. Context

The roundtable was convened by Temilade Sesan as part of an action research project aimed at understanding and expanding the contribution of scientific evidence, or science advice, to policymaking in Nigeria's household energy sector. Household energy is defined here as energy for basic services (i.e., cooking and electrification), as distinct from energy for productive and other uses. The roundtable was preceded by a workshop, held in June 2018, to discuss participants' experiences of evidence use (or non-use) in their everyday jobs as technical officers and decision makers (a summary of the workshop deliberations can be made available to stakeholders on request). Both forums were funded by a grant from the International Network for Government Science Advice (INGSA), administered in partnership with the International Development Research Centre (Canada) and the International Science Council.

2. Participation

The roundtable had representation from key government institutions, notably the Energy Commission of Nigeria (ECN), the Rural Electrification Agency (REA), the Federal Ministry of Power, Works and Housing, the Federal Ministry of Science and Technology, the Federal Ministry of the Environment, and the Nigerian Electricity Regulatory Commission. Business and civil society organisations represented include the Nigerian Economic Summit Group, Havenhill Synergy, Policy and Legal Advocacy Centre, Solar Sister Nigeria, Power for All Nigeria, the German development agency (GIZ) and Roshan Renewables. Members of academia came from the University of Ibadan, Obafemi Awolowo University, Ebonyi State University, the Nigerian Academy of Science and the Australian National University.

3. Overview of lead talks

"Evidence-informed policy making" (Doyin Odubanjo, Nigerian Academy of Science/INGSA Africa): The talk gave a critical overview of the relationship between science advice and policy. It highlighted gaps in the public understanding of science globally and the availability of data in the Nigerian context, but also acknowledged limits to the authority that can be claimed for science and the contingency of evidence-to-policy processes on other factors such as values and politics.

"Lessons from evidence-to-policy initiatives in Nigeria's health sector" (Jesse Uneke, African Institute for Health Policy and Health Systems/Ebonyi State University): The talk described the ways in which researchers at the AIHPHS have worked with government actors to arrive at evidence-informed health policy in the Nigerian context. It emphasised the centrality of relationships to the evidence-to-policy process and identified varying degrees of researcher-policy maker integration – from unidirectional supply- or demand-driven efforts, to mutual exchange models, to embedded approaches which see actors from one side immersing themselves in the organisational culture of the other side (labelled the "push," "pull," "exchange" and "integrated" models respectively). Also drawing on work done previously in the health sector, Professor Uneke led participants in the production of an "evidence ecosystem landscape map" for the household energy sector. The schematic, drawn up by Professor Uneke and appended to this report, delineates the actors, barriers and facilitators involved in the funding, production and use of research for energy policy in Nigeria.

"How can evidence be used to support Nigeria's energy development goals?" (Temilade Sesan, Centre for Petroleum, Energy Economics and Law/University of Ibadan): Drawing on

instances in the National Energy Masterplan and the National Renewable Energy and Energy Efficiency Policy, the talk highlighted how policy prescriptions can sound definitive and straightforward even though they do not reflect the range of available evidence on a given issue. This is the case with certain statements in the NEMP and NREEEP regarding cooking energy access, indicating that further engagement with the evidence is needed in this area. More broadly, a recognition of the nuanced nature of the evidence around household energy use should prompt policymakers to embrace, rather than shrink from, the complexity and uncertainty often associated with evidence-to-policy processes.

4. *Framing questions for roundtable discussion*

- How do we translate the concept of evidence-informed policymaking, with its intellectual origins in the global north, into the cultural and political realities of a developing country like Nigeria? Further, how do we do this within the framework of the broad-ranging, high-level aspirations embodied in the so-called global goals?
- How is energy policy produced at the national level – who are the actors involved, and what processes/mechanisms are followed? What is the status and substance of science advice in these processes?
- Where do experiences in the household energy sector fall within the push-pull-exchange-integration continuum of evidence-policy interaction? What concrete steps can we take to facilitate researcher-policymaker interaction at the higher levels of the continuum?

5. *Key insights from roundtable discussion*

- Analysis of the “status” of evidence, i.e., the relative weight ascribed to evidence (broadly defined) in the policymaking process, seems to be more immediately relevant for the household energy sector than discussion around the “substance” of evidence (the nature/forms of evidence) used in the process. Elevating the status of evidence can be viewed as a necessary first step in this context where researcher-policymaker interactions have historically been limited; indeed, status can signal the depth of engagement that policymakers in a given context will commit to on the evidence-policy continuum. Future work should aim to strengthen the substance of evidence used in the sector in addition to bolstering its status.
- Relationship- and trust-building are not only crucial for achieving science-policy exchanges, they are also important from a public engagement perspective. This became apparent during the Ebola outbreak of 2014 - 2016, when responders quickly learned that the emergency policies put in place by health authorities would not be accepted locally unless they were mediated by trusted members of affected communities.
- Even where science-public-policy relationships have been established, science advice cannot be expected to take place in a vacuum: values and beliefs necessarily play a role in the way that different groups engage with evidence, however “settled” researchers and knowledge brokers believe the science to be.
- While the household energy sector can learn a lot from the progress that has been made on evidence-informed policymaking (EIPM) in the health sector, there are substantive differences between the two sectors that might preclude a wholesale transfer of experiences from one to the other.
- Champions are needed to drive the integration of evidence into policymaking processes in any sector. It will not happen without the concerted effort of dedicated individuals.
- There is little to no communication between key government institutions (REA, Ministry of Power, ECN) and local universities/research centres, including the six research centres established by the ECN in Lagos, Sokoto, Nsukka, Ilorin, Benin and Bauchi. No institution has taken responsibility for addressing this gap so far – each side seems to be waiting for the other to make the first move, as it were. The impasse needs to be broken

by champions who are willing to drive the agenda of EIPM in the sector. Dr Victor Osu (REA) indicated that his institution is prepared to take on this responsibility.

- To the degree that engagement takes place between stakeholders, universities and research institutions seem to be especially out of the loop. There are indications, for instance, that government agencies have been collaborating on energy research projects with universities abroad while passing over those in Nigeria. The isolation of local research institutions is manifested in low levels of access to research funding from both private-sector actors and the government. Part of the problem here may have to do with access to information: there is, for example, a ₦20 million grant that the Tertiary Education Trust Fund (TETFund) allocates yearly to fund research in higher institutions, but many academics are not aware of it. In another example featuring the private sector, Vitafoam funds research into energy efficiency technologies, but little is known about it in academic circles.
- One potential advantage to creating better synergy between academic institutions and government agencies (“research producers” and “research users” in the evidence ecosystem landscape map) is that it will help to jointly identify and target areas of research that are relevant to policymakers. This way, research questions can be formulated that address policymakers’ concerns, increasing the likelihood of them identifying with knowledge outputs. This can be a starting point for discussion around the substance of evidence used in energy policymaking, as the nature of the evidence that is produced will depend on the types of questions that are formulated in the first place.
- Concern over low levels of implementation of existing energy policies cuts across actors in government, civil society and academia. In particular, the low level of attention given to clean cooking policies (especially relative to electrification policies) is problematic for affected populations, the majority of whom are women and children. Here, there is scope for research institutions to reach out and work with civil society actors, especially those close to the ground, to generate outputs that contribute to the evidence base on the issue. Stakeholders deliberated on the potential for building compelling narratives (through, for example, documentaries) around the issue of cooking energy that might facilitate policy implementation on that front.
- The implication of the above position on cooking energy is that evidence can be used to make a case for the desirability of implementing existing policies, and not just as an input in creating new policies. However, there may also be a case for asking why ostensibly good policies in the sector are not being implemented – might it have to do with a lack of fit/appropriateness, given that policies (and technologies) that work in one context may not necessarily work in another? This takes us back to the issue of designing research questions that are fit for the context: policy makers, publics affected by particular issues (like women, in the case of cooking energy) and practitioners all need to be involved in framing research problems early on in the knowledge production process.

6. *Next steps*

Temilade Sesan (University of Ibadan) and Victor Osu (REA) will jointly develop a framework for opening up communication between key government agencies (REA, ECN, Ministry of Power, Ministry of Science and Technology) and leading energy research institutions (CPEEL Ibadan, NCEEC Lagos, SERC Sokoto, NCERD Nsukka, NCHRD Ilorin, NCEE Benin and NCPRD Bauchi). Once communication channels are established, opportunities for knowledge exchange and integration will be identified. External funding will be sought for knowledge co-production and engagement activities in the longer term. More institutions will be added to the network once it demonstrates viability and utility (the energy evidence ecosystem landscape map can help to identify stakeholders in this regard).

Nigeria Energy Sector Evidence Ecosystem Landscape Map

Research Funders

- ✓ Governments both at the Federal level: TETFUND, RMRDC, Presidential initiative, National Research and innovation fund, PTDF (research and capacity building), NUC (National research and development fund) and the State level: PTDF
- ✓ Donors: GIZ, RDIC, DFRD, AU (Office of Science and Technology), Heinrich Boll Foundation, Bill Gate and Melinda foundation.
- ✓ Private Sector: LG, Philips, Shell

Role research users play to improve funding of research and the production of policy relevant research

- ✓ Targeting research to mandate i.e application of what has been researched /developed
- ✓ Brain storming session with stakeholders
- ✓ Provide necessary incentives
- ✓ Technology domestication
- ✓ Adaptation of technology

Improve relationship between research producers and research users?

- ✓ Inter-Sectoral Collaboration
- ✓ Compelling activities (i.e workshop, seminars, conference)
- ✓ Involving researchers in policy making process and involving policy makers in research process
- ✓ Building informal relationships

Producers of research evidence

- ✓ Educational Institutions
- ✓ Research Institutes (University of Lagos energy efficiency centre e.t.c)
- ✓ Rocky Mountain Institute (RMI)
- ✓ Nigerian Renewable Energy Round Table
- ✓ Clean Technology Hub
- ✓ Center for Social Justice

Facilitators

- Research capacity development
- ✓ More funds for research
- ✓ Rapid response service
- ✓ Commissioning of Research by MDAs

Research Translators/ Knowledge Brokers

- ✓ Nigerian Academy of Science
- ✓ Nigerian Medical Association (NMA)
- ✓ National Safety Council (NSC)
- ✓ Nigerian Society of Engineers (NSE)
- ✓ Nigerian Association for Energy Economic (NAEE)
- ✓ Nigerian Economic Summit Group (NESG)
- ✓ Nigerian Renewable Energy Round table (NiRER)
- ✓ Media

Research users

- ✓ Federal Ministry of Science and Technology
- ✓ State Ministry of Science and Technology
- ✓ Parliament (State House, National Assembly e.t.c)
- ✓ MDAs

Facilitators

- Relationship Building
- ✓ Good Communication
- ✓ Humility
- ✓ Honesty
- ✓ Funding

Barriers

- ✓ Funding
- ✓ Lack of Research Capacity
- ✓ Lack of institutional coordination
- ✓ Data Limitation
- ✓ Absence of collaboration between researchers and policy makers

Barriers

- ✓ Funds
- ✓ Lack of Science Communication
- ✓ Lack of Mutual Respect
- ✓ Lack of Proper Stakeholders Engagement
- ✓ Political Interference
- ✓ Conflict of Interest

