

Funding for Research: Opportunities and Challenges

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September 16th, 2016



The questions you need to be reflecting on:

After more than 40 years:



● Why is there so much *Cap^{-ve}* within a sea of sustained investment in the *Cap^{+ve}* activities?

● How do we proactively re-design and reinvigorate research training to yield better returns?

✓ I invite you to reflect with me



Initial research mentorship...



- 1982-1984: worked as Animal Husbandry Officer with the National Beekeeping Station of the Ministry of Livestock Development
- Initial exposure in research
- Research Assistant to Prof. Isaac Kirea Kigatiira who was completing his PhD in Cambridge on migratory patterns of the African honeybee *Apis mellifera mellifera*

<http://yoroguyo.co.ke/content/honeybee-man>



Closely mentored by TRO:



- TRO was founder Director of ICIPE (1970-1994)
- Seconded to Planning Development Unit of ICIPE in 1993
- Worked closely with Thomas R. Odhiambo to mobilize leadership and funding to support R&D on Africa (RANDFORUM/AAS)

Lessons and culture of regular performance evaluations at all levels

<http://yoroguyo.co.ke/content/reminiscing-being-career-scientist-africa-part-1>



Joined CNHR in 2008:

- Began operations in 2008
- Collaborative initiative
- Built capacity through a research leader model
- Established 4 Centers of Research Excellence
- Provided Research Leadership and Career Development Grants

View the CNHR Documentary on
<https://www.youtube.com/watch?v=Hh2BL0hnFG8>



PART 1:

Recent Performance of the University Sector in accessing Research Funding in Kenya



Establishment: ST&I Act No. 28, Section 32 of 2013

- National reach in all its funding
- Funding all sectors of the economy



Function: Mobilize, Allocate and Manage funding

- Creation of knowledge and innovations in ST&I for the growing of national economy



Operations: Several Strategic funding schemes

- Training fellowships, multidisciplinary research grants, institutional support grants etc.



Collaborative Funding: To meet strategic objectives

- Newton Utafiti Fund is but one example



What is the strategic objective of NRF funding?

⇒ *General Principles for Accessing Funding from the NRF*

- Mobilize, allocate and manage financial resources to facilitate an effective National Innovation System that would create required knowledge and innovations in all fields of Science and Technology for the growing economy

Hence:

- Production world class researchers **is a priority**
- Building world class research facility **is a priority**
- Developing enabling environments and systems that facilitate thriving of research culture **is a priority**

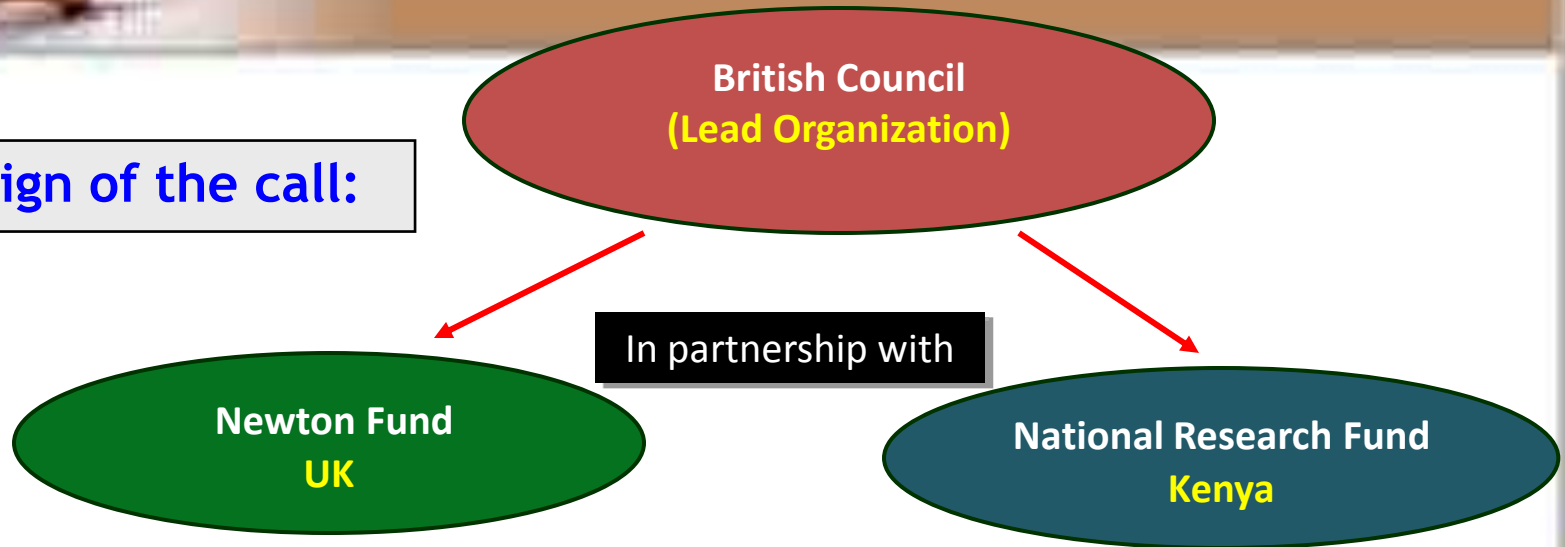


NRF Inaugural Calls in November, 2016:

● Three (3) Research Calls

- ⇒ Research Training (Masters **396**; Doctoral **439**)
- ⇒ Multidisciplinary Collaborative Proposals: **511**
- ⇒ Infrastructure Support **195** (to be evaluated later)

Design of the call:



Areas :

- ✓ Health: Systems Research, mental, NCDs, re-emerging diseases
- ✓ Food Security; sustainable and renewable energy
- ✓ Environment & Climate change; Economic Transition skills (SMEs)
- ✓ Governance, Conflict Resolution and Security

Budget:

Pounds 700,000: Newton

KShs 20 Million: NRF



Strategic Programmes:



- *Research Partnership Funding (NACOSTI, KENIA, CUE)*
- *Competitive Research Grants (Research training PhD/Masters/PhD)*
- *Bilateral Funding (International funding agencies e.g. Norton Fund)*
- *Strategic Research Funding (Special priority research)*
- *Research Priming Grants (Proof of concept)*
- *Contract Research Funding (Linkage with private sector)*
- *Participation in Global Research Citizenry (e.g. Conf. attendance)*



Merit review by peers



- *All eligible applications for NRF funding have to undergo a formal merit review process undertaken by experienced external and independent peer reviewers*
 - *Reviewers provide recommendations to the Board of Trustees of the NRF through its Technical Committee (TC)*
-
- *Provide detailed feedback to applicants to assist them improve future applications submitted to NRF or elsewhere*



Entirely based on competence:

- Are eminent academicians and researchers
- Have a wide experience in academics, research as well as in policy matters
- Are people of high integrity
- Posses wide experience in the review of research proposals and grants, and posses excellent analytical and writing skills



Very Important to NRF



Conflict of interest means that an individual has to declare any academic, financial or other interests that could (be perceived to) compromise the performance of the individual with respect to the matter being reviewed



Examples of Col's:



- From the same organization as an applicant
- A close personal friend or relative of an applicant
- Involved in long-standing scientific, professional or personal differences with the applicant (leading to bias)
- In a position to gain or lose financially from the outcome of the application
- A supervisor, project leader, co-investigator or advisor to a project for which grant is being sought
- In the management group (Head of Department, Dean, Principal, Head of Research Group) of any organization / section of an organization at which the applicant is based
- Actively involved in permanent advisory board or teaching/research section and being on staff of the same section of an organization at which an applicant is employed
- A referee for the applicant



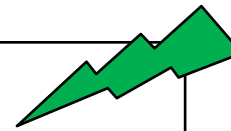
Rule of Thumb



- In case of *uncertainty* a conservative *attitude* is recommended
- (i.e. if in doubt, *opt out*)



Total Received 126
Shortlisted 41



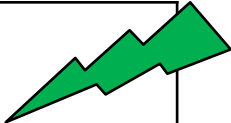
Responses by theme of applicants

Physical Sciences	45	
Health Sciences	24	
Agricultural Sciences	24	
Biological Sciences	16	
Environmental Sciences	6	
Social Sciences	11	



NRF Call		
Infrastructure	1	195
Multidisciplinary Research	3	500
PhD	9	439
Masters	0	379



Total Received	50	
Applications for Kenya	27	
Awarded	14	

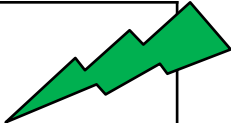
Responses by theme of applicants		
Food Security	13	26%
Health	14	28%
Manufacturing for SMEs	4	8%
Sustainable & Renewable Energy	6	12%
Environment and Climate Change	4	8%
Governance and Conflict Resolution	2	4%
Cross-Cutting	7	14%



Inaugural Call in July 2016:

● One Research Call

- ➡ Institutional Links: 11 applications reviewed)
- ➡ Trilateral (Kenya, UK, SA) Researcher Links: 12
- ➡ Bilateral (Kenya, UK) Researcher Links: 4

Total Received	50	
Applications for Kenya	27	
Awarded	14	

Responses by theme of applicants		
Food Security	13	26%
Health	14	28%
Manufacturing for SMEs	4	8%
Sustainable & Renewable Energy	6	12%
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2nd Call in April 2017:

- ▶ Institutional Links: **71** (TUK: **1**)
- ▶ Trilateral (Kenya, UK, SA) Researcher Links: **13** (TUK: **0**)
- ▶ Bilateral (Kenya, UK) Researcher Links: **16** (TUK: **0**)

Multi-disciplinary

- Considerable appetite for research funding by higher education sector
- General lack of understanding on what was expected under this call
- Need for better support for university researchers
- Need take care of national priorities

Infrastructure upgrade

- Lengthier process of review which will include site visits and interview of the teams
- Institutions need to prioritize their applications
- Proposals should include explanations of how the infrastructure will be maintained
- Identification of experienced peer reviewers could be a challenge



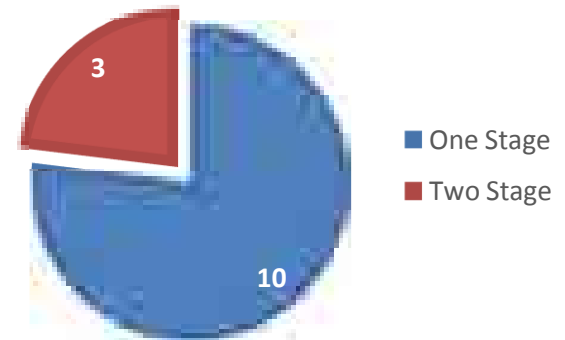
What is the EARF?

- The EARF is a funding facility managed by PwC on behalf of DFID's East Africa Research Hub (EARH).
- Through this facility, DFID's country offices in eastern Africa (Kenya, Tanzania, Uganda, Rwanda, Ethiopia, Somalia, Sudan and South Sudan) are supported to use evidence in order to drive development impact and value for money, linking with UK's wider science and research agenda in the region.
- The projects that EARF handles are categorized under two funding windows, namely:
 - *The Regional Research Programme*
 - *The East Africa Country Research Programme*

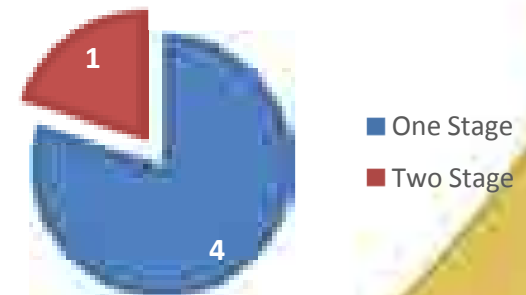


- Procurement process is flexible and adaptable to the needs of each research project
- Since inception in September 2015, the EARF has applied the following procurement options:
 - *Open and Full Competition: One Stage - 10 research projects*
 - *Open and Full Competition: Two Stage - 3 research projects*
 - *Restricted Competition: One Stage - 4 research projects*
 - *Restricted Competition: Two Stage - 1 research project*

Open competition



Restricted Competition



EARF Call on Urbanization		
Total received	50	
Shortlisted	16	
International bidders	14	
Regional bidders	2	



What is our EARF funding experience saying?

- Our regional research suppliers (Universities etc.) are badly out-competed by others
 - ⇒ Of the 15 calls made since 2015 only 3 have been won by regional organisations
- Poorly conceived, designed and written proposals, poor teaming and poor track record



Common Shortcomings found Application Bids to the East Africa Research Fund (EARF)

<http://www.earesearchfund.org/common-mistakes-and-shortcomings-application-bids>



Very few young researchers can write a convincing proposal



Performance of the CNHR DRePHA Call, 2016

- Total Applications received: 73
- Applications from Public Universities: 42
- Applications from Private Universities: 7
- Applications from women researchers: 25
- Shortlisted applications: 36
- Applications recommended for funding: 19
- Applications from TUK: 0



Common reasons why proposals do not rate highly



PART 2:

What investment and management models do universities need to increasingly adopt to ensure effective research training?



Ultimate Goal 1:



⇒ *Avail research resources that attract researchers to respond by writing proposals*



Ultimate Goal 2:



⇒ *Ensure that our researchers are skilled in writing winning proposals that can resource research and training at the universities.*



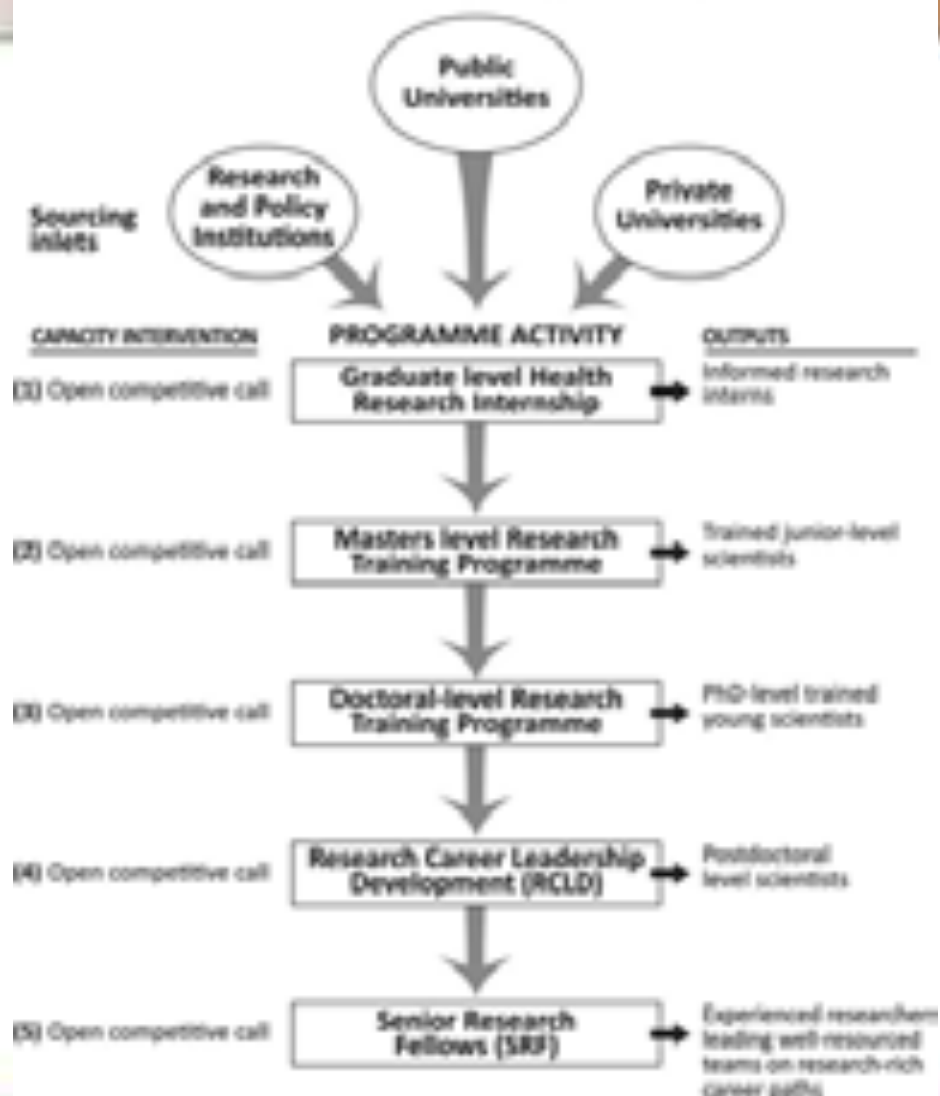
Ultimate Goal 3:



⇒ *Ensure that our universities provides the required enabling research management environment that encourages researchers to wish to pursue proposal grant writing and do research.*



A Long-term Co-funding Convergence Framework for Research Training and Institutional Building to Enhance Capacity Strengthening of Health Research Leadership in Kenya



Universities must invest in effect research training and management



- Ensure that research training is managed more effectively
- Make sure the graduate output able to compete in the global market place
- Build skills in other areas beyond the focal discipline
- Universities must actively engage NRF

Turn supervisors to be 'mentors' for research career development

- Involve fellows in writing of papers and grants
- Provide career opportunities for fellows
- Give pastoral care and moral support

Introduce & nurture research-rich career pathway in the Universities



- *Every university needs to establish a Grants Management and Coordination Office*
- *Review the new standard called Good Financial Grant Practice (GFGP) advanced by the AAS*
- *Affiliate with the Eastern Africa Research Innovations Management Association (EARIMA)*
- *Get in touch with Prof. Lucy Irungu of UoN who is the Kenya Rep.*



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Thank you all for your kind attention