



New trends in knowledge generation lifts research cooperation in Africa a notch higher

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1.0 Introduction

- ▶ Triggers of international research cooperation include;
 - ▶ Global, shared challenges such as terrorism, poaching (illegal trade in wild fauna & flora), communicable diseases, global warming, drug cartels, food insecurity etc
 - ▶ Donors/funding agencies also trigger research cooperation seen in the examples of OECD, multilateral banks (AsDB, AfDB, World Bank), International development agencies (CDC) etc
 - ▶ Similarities between countries in, where what worked in one location becomes of interest to another location, **example** of the Korean Saemaul Undong programme where African Countries are gradually learning and applying new knowledge in own contexts (Rwanda, Tanzania, Uganda)

1.0 Introduction ... contd

- ▶ Developments in ICT – have eased knowledge sharing, building shared data bases, and enabled real-time movement of information;
 - ▶ Also a double edged sword when used for criminal activities such as building of terror networks.
- ▶ Regional government authorities are formulating policies such as African Union's APRM; STISA
- ▶ Universities across continents collaborating – recent example - the Sustainable Solutions Development Centre on the SDGs;
- ▶ Others e.g FOCAC (Africa China cooperation) Japan Africa cooperation etc.
- ▶ China has shared knowledge on its economic growth and linked research to economic growth (McGann 2012)

1.0 Introduction ... contd

- ▶ Research cooperation through regional trading blocks (COMESA, ECOWAS, SADC, Great Lakes, etc)
- ▶ There are similar initiatives in South Asia; e.g Pakistan and India on anti-terrorism cooperation through building a common data base (Millar, 2009)



Study questions

- ▶ What are the trends in government investment in research and development (R&D) in Africa, and is there a relationship between the source of financing and research focus?
- ▶ Is there a relationship between pressure from global challenges and improvements in research cooperation and knowledge development in Africa?
- ▶ Has the need to share knowledge forced governments to design research-supportive national policies?

Methodology

- ▶ Identified six Anglophone countries in Africa drawn from East and Western Africa (Ghana, Kenya, Nigeria, Tanzania, Rwanda, Uganda and South Africa)
- ▶ Desk review of trends in GERD and number of researchers; and a review of selected national research policy documents
- ▶ Key informant interviews with respondents from Uganda, Kenya, Tanzania and Rwanda
- ▶ FGD with 8 researchers on knowledge sharing and generation in topics; 'terrorism', 'diseases' and 'research policies'.

Findings

1. Trends and STI Indicators in selected African Countries:

Country	National STI Policies - published	GERD2007/2008 (%)	GERD 2010 (%)	Female researchers % of all researchers	% Increase in scientific publications (2005-2010)	% Increase in scientific publications p.c (2005-2010)
<i>Ghana</i>	2010	0.38	0.38	18.3%	54	21.2
<i>Kenya</i>	2012	0.48	0.98	25.7%	35	30.6
<i>Nigeria</i>	2012	0.2	-	-	54	25
<i>Rwanda</i>	2005	-	-	-	-	-
<i>Tanzania</i>	1996	0.48	-	-	28	15.6
<i>Uganda</i>	2009	1.1	0.5	41.3%	56	18.4
<i>South Africa</i>	2008*	1.05	0.76	41.7%	31	177.1

Findings ... contd

2. New initiatives that have triggered transformation in research;

- Adoption of the STISA 2024 at the 2014 African Union Summit, as the framework for accelerating Africa's transition to innovation led, knowledge based economy
- Series of international conferences where knowledge, innovations, data and security intelligence on the shared challenges, is shared
- AESA – Alliance for Accelerating Excellence in Science in Africa – to drive Africa's research agenda (Sept 2015)
 - Product of African Academy of Sciences and NEPAD
 - Endorsed by African Heads of States as complement to STISA-2024

Findings ... contd

3. Regional research institutions that have evolved over time to promote research in Africa including CODESRIA in Dakar, OSSREA in Addis, and PASGR in Nairobi;

- ▶ notably, these organizations;
 - ▶ Provide seed funding for small research projects across the continent
 - ▶ Provide training and capacity building in research across the continent
 - ▶ Funded externally - donor dependent

Discussions

Significant increase in level and diversity of research taking place in Africa

- Research has for a long time been skewed towards medical, natural or earth sciences, energy and agricultural thematic topics and less on social sciences – often dictated by donor interests
- Research has been largely donor/financer driven – and this is now shifting with the AU's push for greater GERD and focus on STI
- There is still a disconnection between research and policy making – in many African countries with political pronouncements or security intelligence gathered by national governments informing policy making
- Data on GERD signifies a gradual (very slow) shift with increase in governments attention to research;
 - Modest increase in public spending on R&D
 - More researchers including female researchers
 - Establishment of National STI councils – as seen in the countries reviewed; and National Research Funds

Discussions

- ▶ New multi-agency initiatives with pan-African mandate, emerging cognizant of existing challenges and seeking to alter the status quo of R&D in Africa (e.g AESA)
- ▶ Gradual increase in the number of researchers – including female
- ▶ ‘workshop’ is a popular platform of knowledge generation and sharing – often not scientifically generated – pooled, synthesized and used to inform policy national policy in many instances

Discussions

- Indeed global challenges have led to an increase in research cooperation in Africa and beyond – but the thematic focus is determined by the primary funding agency, and not necessarily the host country.
- All African countries reviewed have National STI policies some revised recently in line with the AU's STISA 2024
- A lot of data collected by the government is used internally and not always publicized for wider usage