



Status and Trends in Higher Education in Africa

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Presentation outline

1. Key messages
2. Background and introduction
3. Function/ role of higher education
4. Current trends within the higher education sector
5. Concluding remarks

Key Messages (1)

- **Increase research outputs** through partnerships and regional collaborations, and allow/facilitate universities to emerge as knowledge centers of excellence
- **Improve equitable access** to higher Education across socio-economic quintiles and across gender;
- **Strengthen use of ICTs** for enhanced access and quality of higher education in Africa
- **Need for increased (and) long-term funding** to the higher education sector, as a key driver of development including mobilisation of African Philanthropists and private sector

Key Messages (2)

- **improve the movement of staff and students** across Africa including through a continental ‘accreditation standards and credit transfer system’ to allow students and staff to switch between universities and widen their exposure;
- **establish an ‘African university ranking system’** that recognizes the specific need for Higher Education in Agriculture and other fields, that would encourage universities to address those needs;
- **Catalysing change at Universities** in Africa to secure quality training at both under-and postgraduate levels; this implies designing and implementing relevant and quality research and outreach programmes that justify relevancy of higher education in socio-economic development.

Background and Introduction

- 17 countries with over 40%; 36 with over 30% stunting
- Deepening inequality, # in extreme poverty rising
- By 2040 Africa will surpass Asia with 1.1 billion workforce people
- How are African University contributing to strengthening the fundamentals of the growing economy



Function/ role of Higher education institutions

The University must become a primary tool for Africa's development in the new Century. Universities can help develop African expertise; they can enhance the analysis of African problems; strengthen domestic institutions; serve as a model environment for the practice of good governance, conflict resolution and respect for human rights, and enable African academics to play an active part in the global community of scholars.

Koffi Annan, Former SG, UN

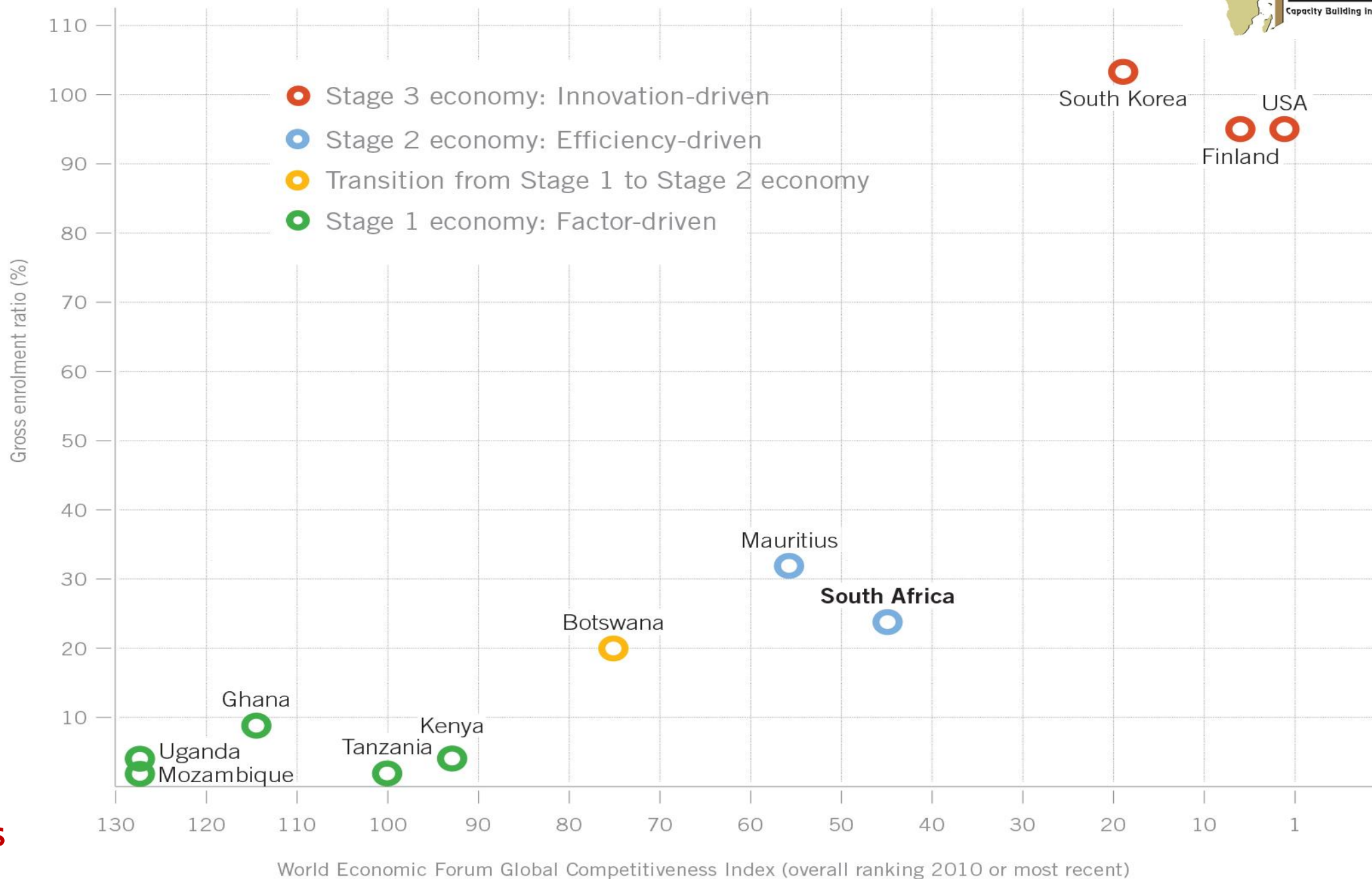
Increasing demand for Higher Education 20,000 – 1970 4.5million-2008

Private higher education sector (22%, 2006)

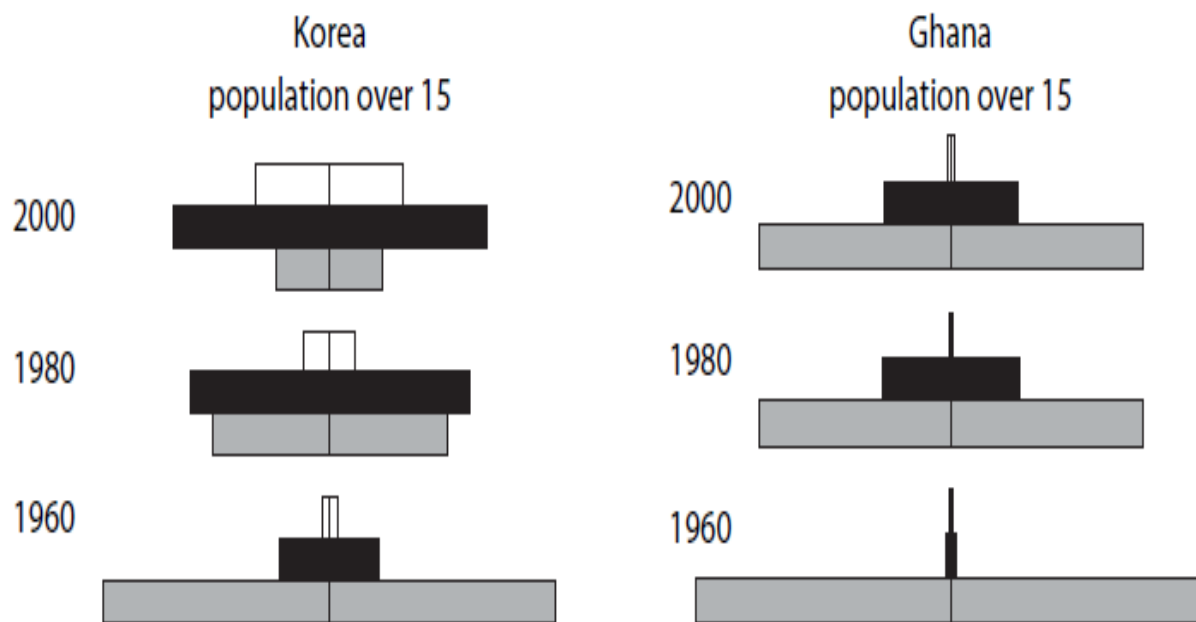
Infrastructure, classes, dorms etc

- Quality issues
- Decreasing expenditure per student

Gross enrolment ratio and global competitiveness



Changes in Education Profile in Korea and Ghana, 1960–2000



Source: Barro and Lee 2000.

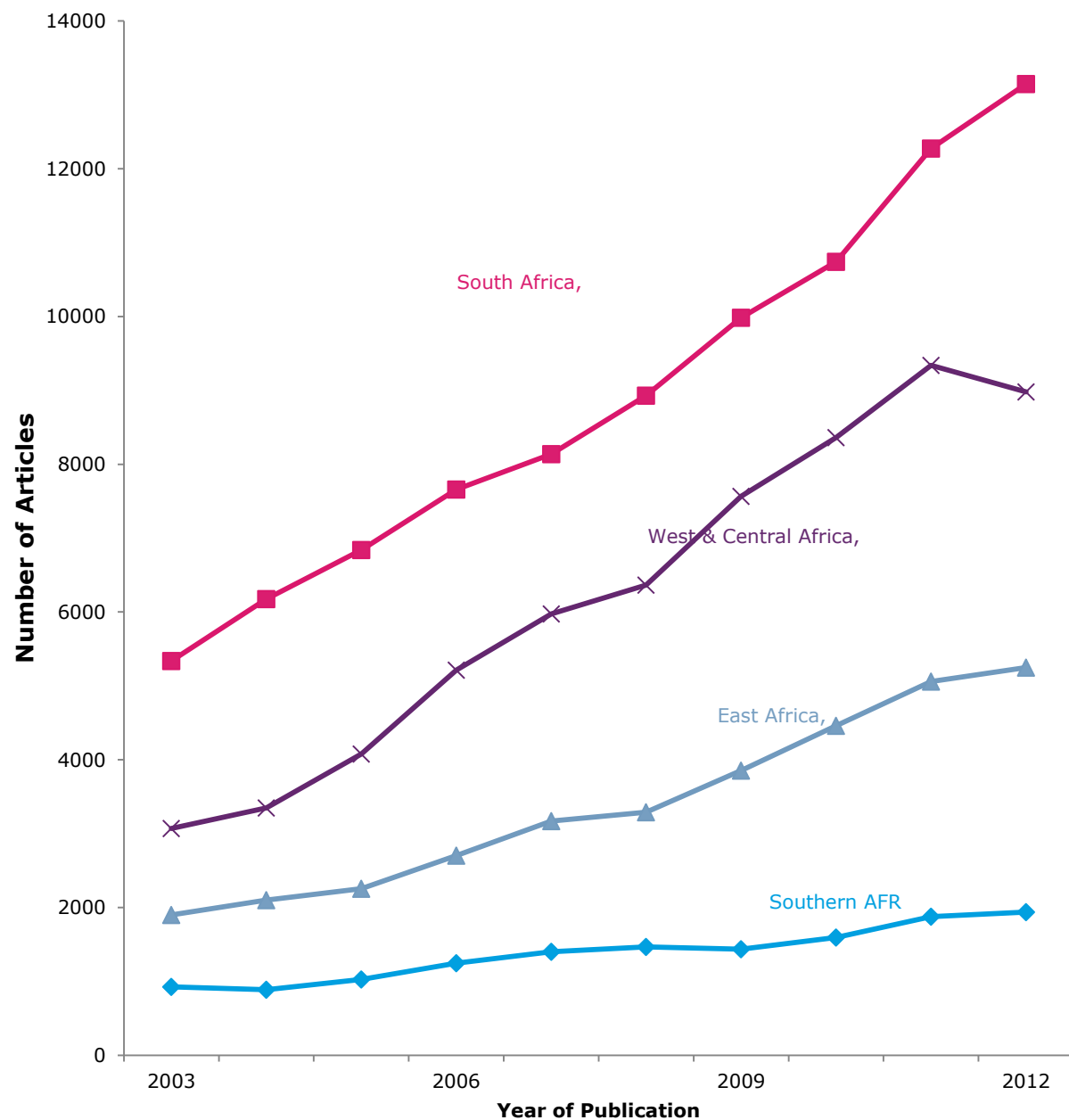
Note: The top block represents the percentage of the population with tertiary education, the middle block represents the percentage of the population with only secondary education, and the bottom block represents the percentage of the population with only primary education.

Distribution of African University Graduates by Field of Study, 2005

<i>Field of study</i>	<i>Distribution of graduates (%)</i>
Agriculture	3
Education	22
Health science	7
Engineering	9
Sciences	9
Social sciences and humanities	47
Other	3

Source: World Bank EdStats.

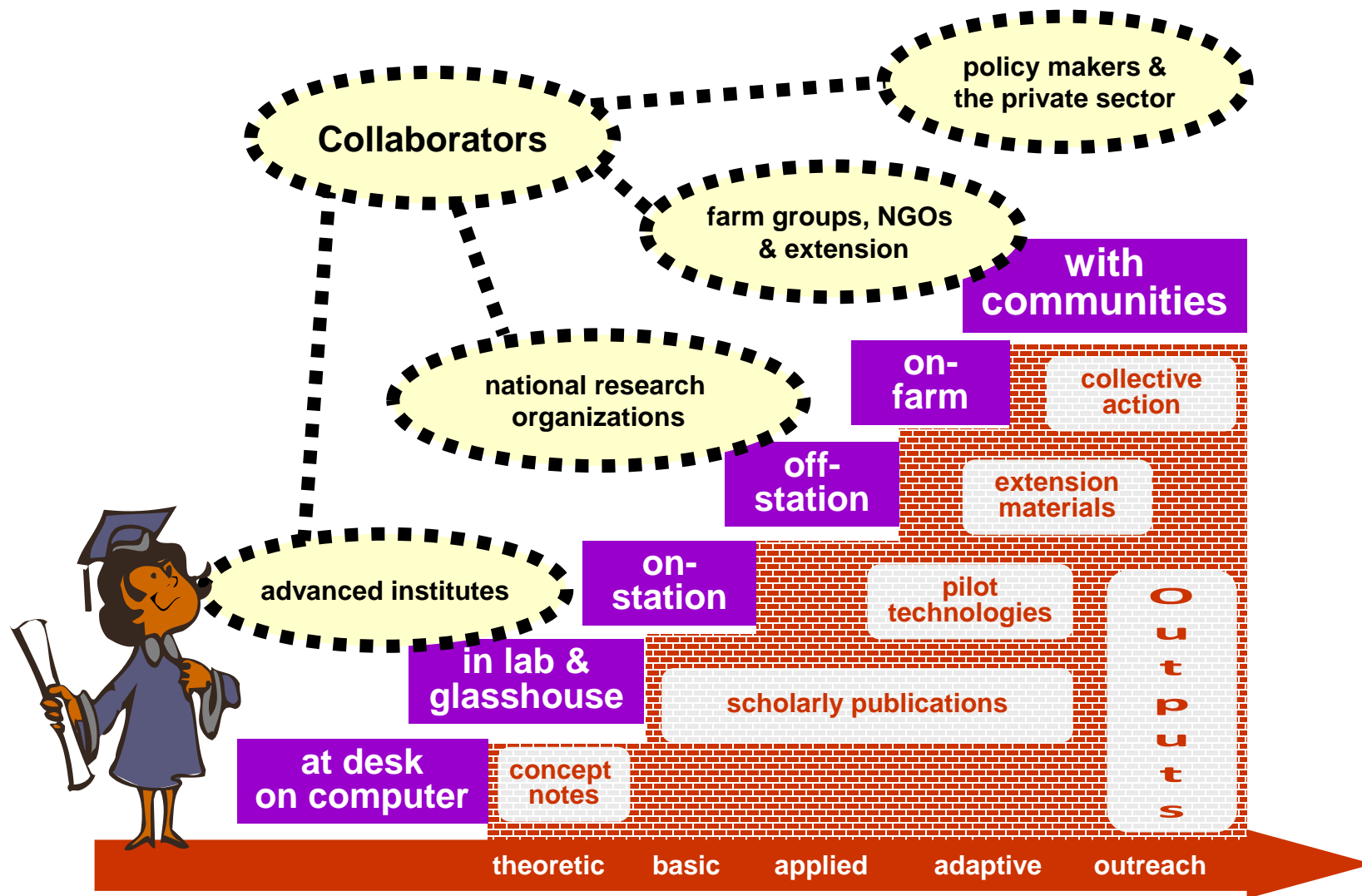
Increasing no of publications but insignificant: Share from 1.6% to 2.0%



Number of Scientific Publications and Patent Applications, by Region, 2002

Region	Scientific publications	Patent applications filed by residents
East Asia and Pacific	25,391	65,506
Europe and Central Asia	40,043	32,728
Latin America and the Caribbean	16,789	40,003
Middle East and North Africa	4,468	926
South Asia	12,127	2,143
Sub-Saharan Africa	3,696	101

Source: World Bank 2009.



Low social impact,
poor outreach
services and
responsiveness to
community needs

‘Yellow notes’

Research & Development Continuum

Low number of researchers per million persons

<i>Case study countries</i>	<i>Researchers per million population^a</i>	<i>Comparators</i>	<i>Researchers per million population^a</i>
Ghana	n.a.	Sub-Saharan Africa	48
Kenya	n.a.	North Africa	160
Mauritius	201	Latin America	261
Nigeria	15	Brazil	168
South Africa	192	India	158
Tanzania	n.a.	China	459
Uganda	25	United States	4,103

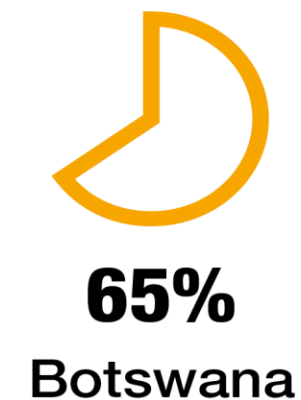
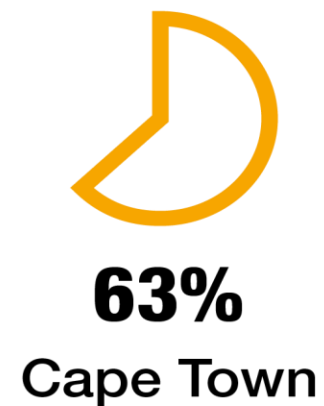
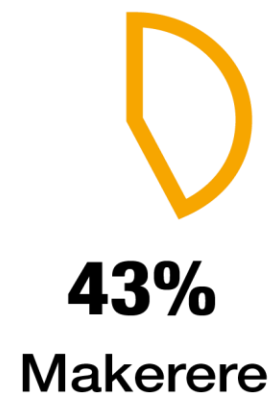
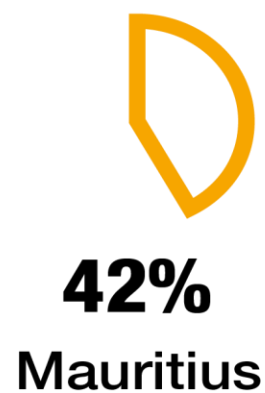
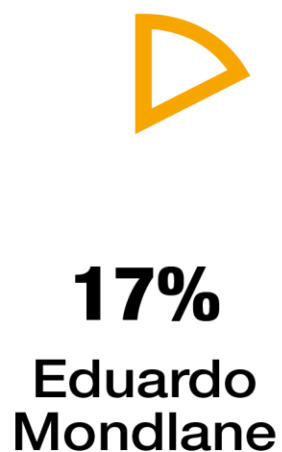
Source: World Bank, 2009

‘Postgraduate education hostage to undergraduate expansion’- high undergraduate enrollment and low PhD graduates

Country	BSc	Msc	PhD/ MD	Total Post-grads	% Postgrad
Botswana (06)	14,904	1134	0	1134	8
Ethiopia (03-04;07)	172,111	Yes, nd	Yes	5700	3
Ghana (07-08)	106,382	4628	280	4908	5
Malawi (08)	9,082	459	15	474	5
Mozambique (03)	63,000	452	nd	452	1
Nigeria (04)	958,476	Yes, nd	Yes, nd	83,387	9
Senegal (03, 06)	55,006	Yes, nd	Yes, nd	4994	9
South Africa (05,06)	735,073	44,321	9,434	53,755	7
Uganda (06)	92,605	2,100	109	2209	2

- 0.5%GDP on research

Low percentage of academic staff with PhDs (2011)



Problematic ratios of masters to doctorate enrolments (2011)



3:1

Makerere



3:1

Cape Town



4:1

Dar es
Salaam



14:1

Ghana



20:1

Mauritius



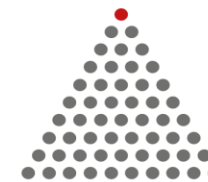
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Botswana



46:1

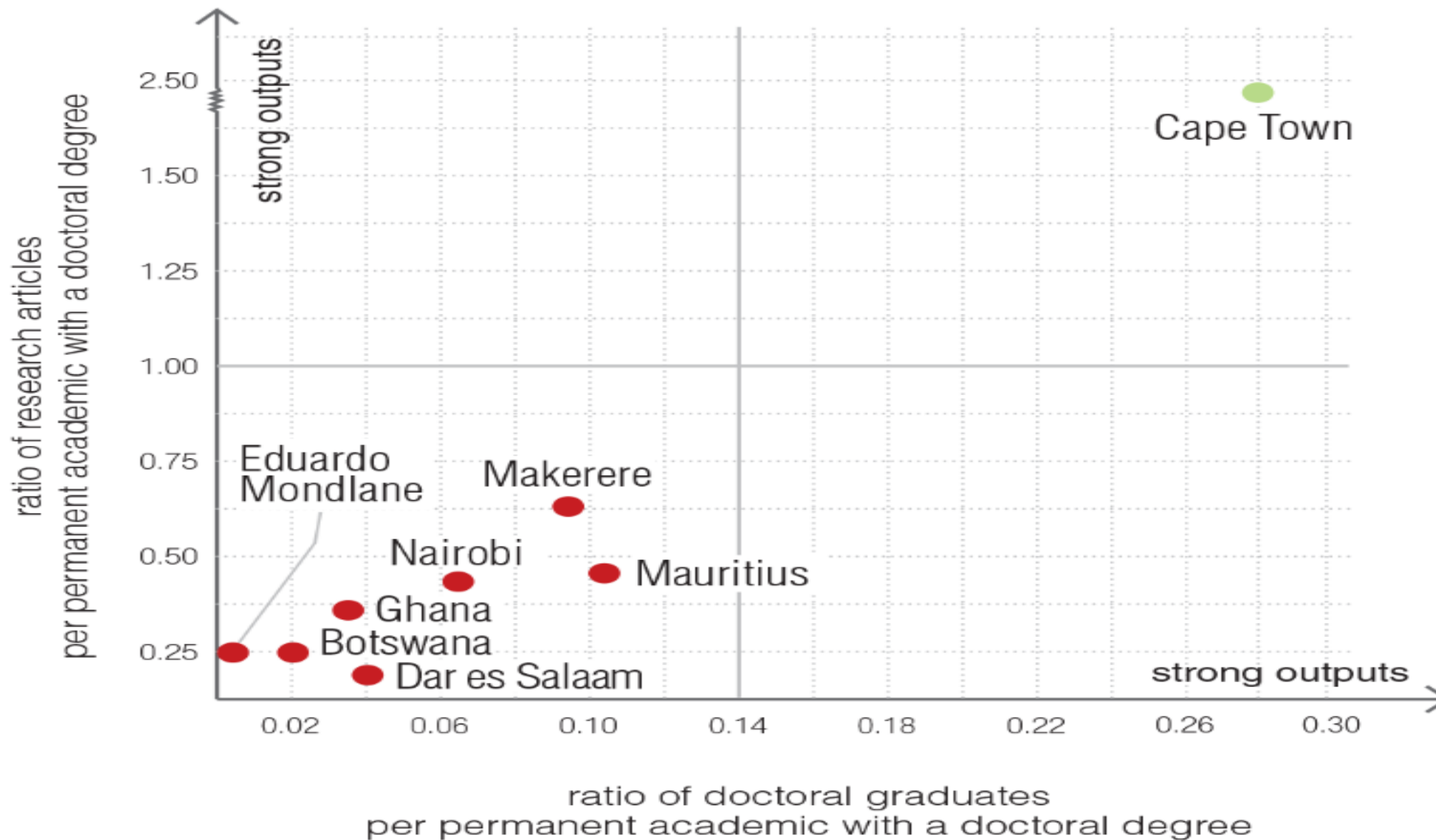
Nairobi



56:1

Eduardo
Mondlane

Ratios of high-level knowledge outputs to academic staff with doctorates



Make greater use of ICTs to enhance access, and quality of higher education

- Submarine cables now provide 20-times more international bandwidth than was the case in 2010 (39% growth in a year)
- Vast capacity, and by mid-2015 barely 8% of capacity was being utilized.
- Varying penetration rates - Morocco >50%, Sierra Leone <2%.
- National Research & Education Networks as service providers for HE and Research (incl. cloud computing)
- Virtual academic mobility, Virtual Expertise sharing, E-infrastructure for research and education; MOOCs;
- Increasing demand for Information-literate and ICT-literate Professors



FUNDING FROM ABROAD

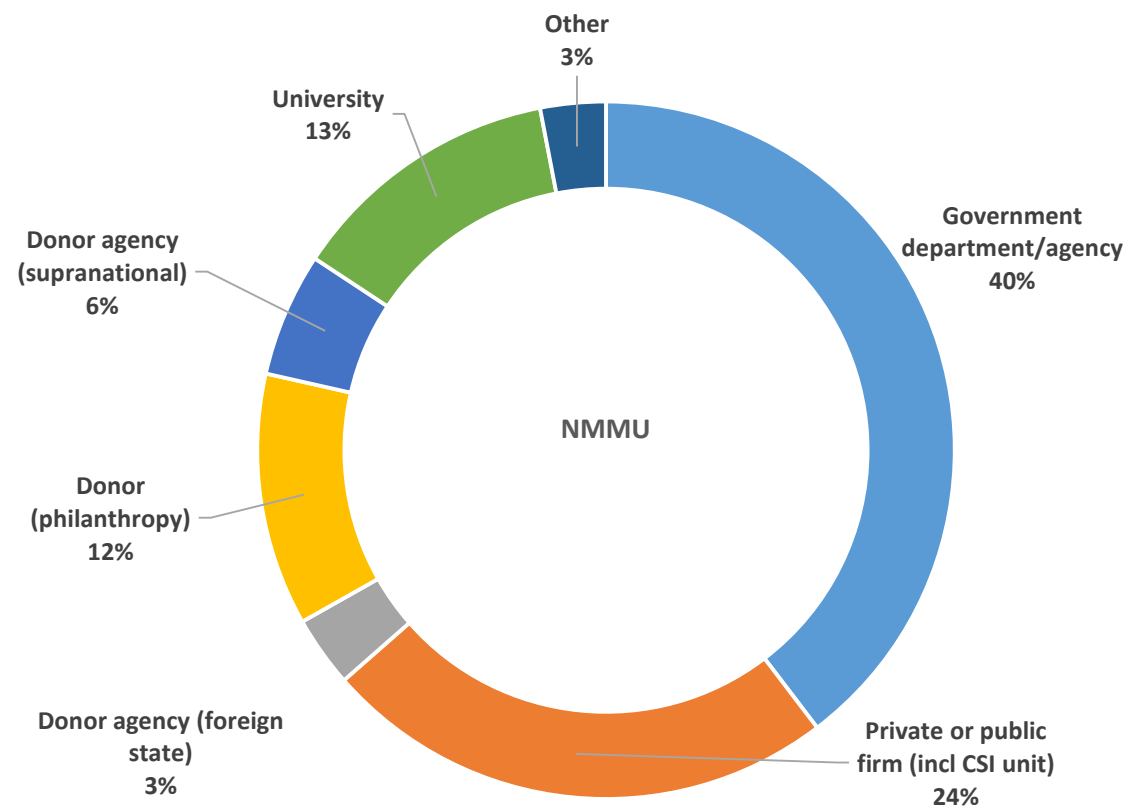
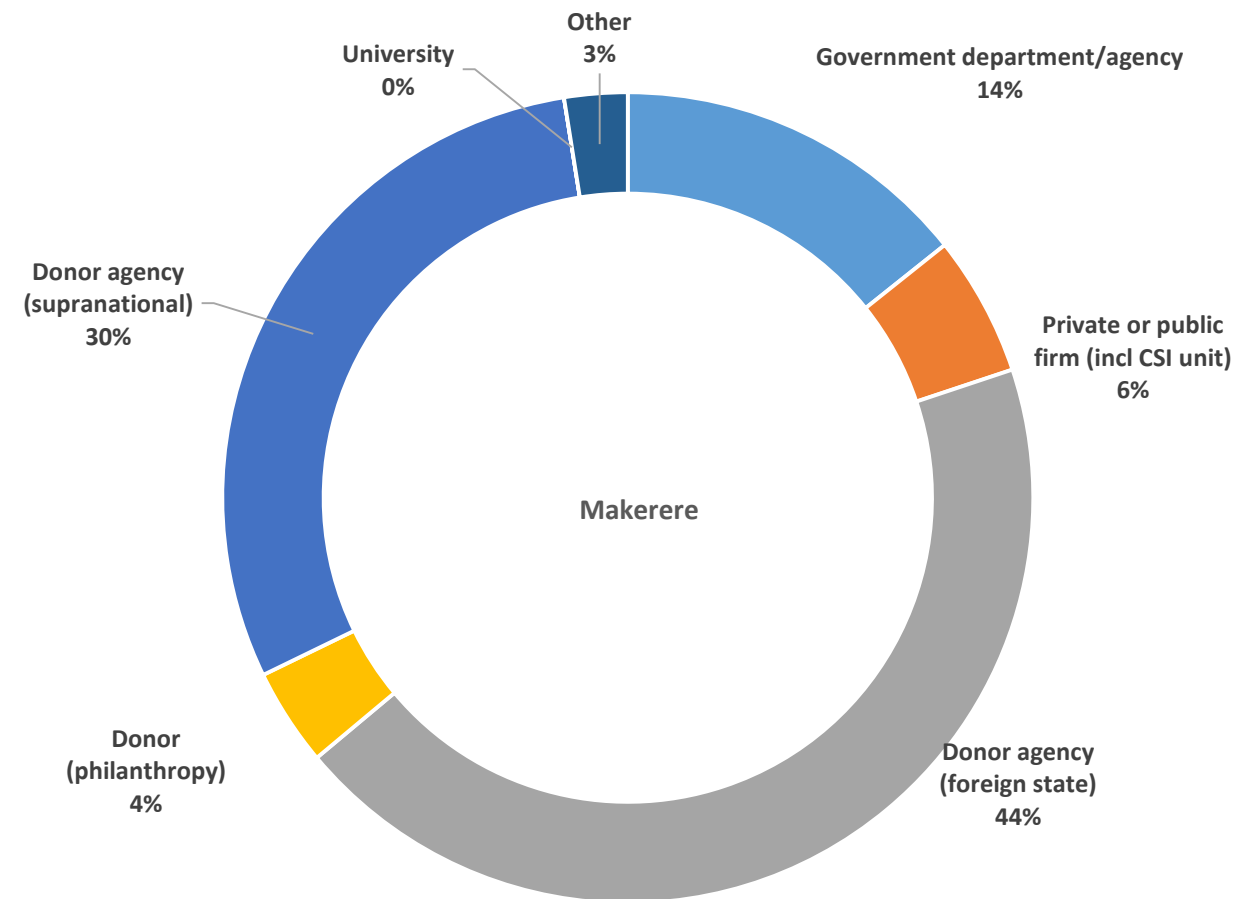
Many African nations depend on foreign grant money (often from overseas organizations) to fund their research.



Level of foreign funding too high

- Short term, volatile funding
- Difficulty in building research programs
- Inability to respond to priority problems
- Distortion of research - publication culture
- Government funding often for recurrent expenditure (double/triple teaching)
- Explore and diversity funding streams for higher education training; e.g. GETT, TETT funds; student loans

Makerere and NMMU: Research project funding by funding type 2013



Greater investment justified- Highest and Lowest Returns to Schooling by Economy

	Overall		Male		Female	
	Economy	Return	Economy	Return	Economy	Return
Lowest	Afghanistan	1.6	Armenia	0.8	Afghanistan	3.0
	Armenia	2.2	Afghanistan	1.3	Papua New Guinea	3.7
	Russian Federation	2.6	Burkina Faso	2.8	Armenia	4.2
	Guyana	3.3	Sierra Leone	3.1	Belarus	4.3
	Iraq	3.4	Iraq	3.1	Cambodia	4.7
Highest	Rwanda	22.4	Rwanda	20.8	Rwanda	24.4
	South Africa	21.1	South Africa	20.3	South Africa	23.3
	Ethiopia	18.5	Namibia	19.3	Ethiopia	19.3
	Namibia	18.3	China	17.7	Kenya	19.3
	Burundi	17.3	Burundi	17.2	Tanzania	19.2

Key messages (1)

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