



Mapping Africa and its Higher Education and Research Landscape

First Results

Mapping process

Beginning of September 2013 LH Basel contacted all Swiss universities and Swiss research institutions in order to inquire about their level of research engagement with African partners.

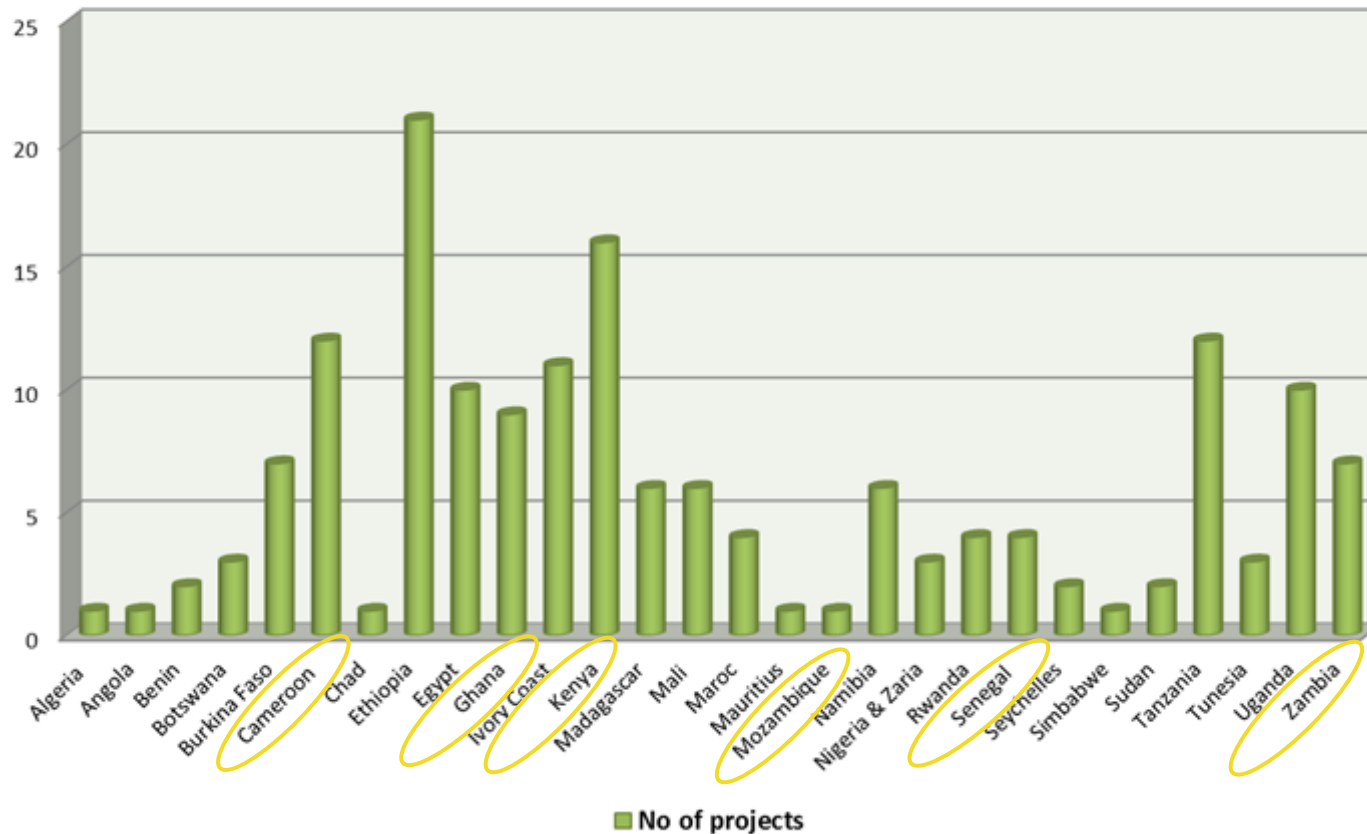
Two groups of answers were established in this process:

- **Group 1:** Long-standing research cooperation with countries in Africa
- **Group 2:** Ideas and plans of developing partnerships with countries in Africa

LH Basel received information from interested researchers of 22 Swiss Universities, further Swiss Research Institutions and Universities of Applied Sciences

Long-term Partnerships of CH Universities / Universities of Applied Science

Long term scientific projects in African countries

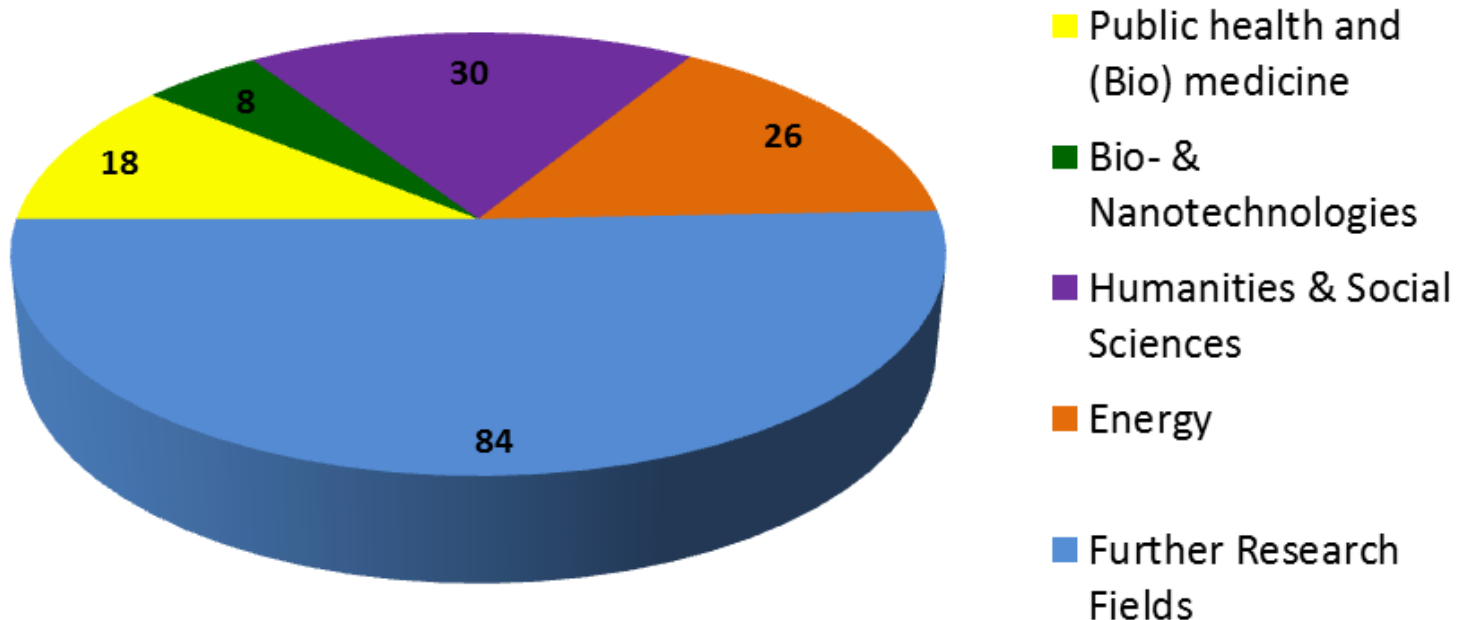


Information received on long-term scientific cooperation with Africa:

- broad distribution
- 166 projects in 28 African countries

SSAJRP Research Fields

Number of projects in Africa per Research field



Selection of countries I

- Focus of the selection was on those countries that apart from academic performance (as mirrored by the Swiss research partners) show an encouraging social and economic development but do not belong yet to the exploding African science markets
- Tanzania and Côte d'Ivoire are already in a successfully running partnership program with Swiss TPH. Looking out for new partners in 2013-16 these two countries, therefore, were not considered anymore.

Selection of countries II

- One focus was on **East African** countries EAC which are considered a mature trading bloc and with confirmed commitment to harmonize health care policies.
- Another on **West African** countries, e.g. Cameroon which is part of the Network of Excellence in Engineering Sciences of the French-speaking Community (RESCIF)
- Those observations lead to a number of 6 African countries that appear to fit in the collaboration framework for the now started funding period of 2013-14
- Those countries are: Cameroon, Ghana, Kenya, Mozambique, Senegal and Zambia

Indicators of selected countries

	Population	Projected Population		Surface area	Population density	CH Embassy
	millions	millions	increase	sq. km thousands	people per sq. km	
	mid-2013	2050	2013/2050	2011	2011	
Cameroon	21.50	52.60	144%	475.00	45.00	Yes
Ghana	26.10	46.00	76%	239.00	109.00	Yes
Kenya	44.20	96.80	119%	580.00	74.00	Yes
Mozambique	24.30	63.30	160%	799.00	31.00	Yes
Senegal	13.50	31.50	133%	197.00	69.00	Yes
Zambia	14.20	47.80	236%	753.00	18.00	No

Economic Performance Indicators

	Gross national income, Atlas method	Gross national income per capita, Atlas method	Purchasing power parity gross national income		Gross domestic product		Human Development Index (HDI)
				Per capita		Per capita	
	\$ billions	\$	\$ billions	\$	% growth	% growth	
	2012	2012	2012	2012			2013
Cameroon	25.30	1,170	49.30	2,270	4.60	2.00	0.49
Ghana	39.40	1,550	48.40	1,910	7.90	5.60	0.56
Kenya	37.20	860.00	74.70	1,730	4.60	1.80	0.52
Mozambique	12.80	510.00	25.30	1,000	7.40	4.70	0.33
Senegal	14.20	1,030	25.80	1,880	3.50	0.50	0.47
Zambia	19.10	1,350	22.40	1,590	7.30	4.00	0.45

Sources: 2013 Population Reference Bureau/World Bank - 2013 World View /United Nations Development Programme - Human Development Report 2013

Main public Universities in Kenya



- There are 48 universities in Kenya, 22 of which are public and 26 private
- **University of Nairobi (UON)** is the largest university in Kenya, became independent in 1970, over 62,000 students, ranked number 1 of all public and private Universities in Kenya
- **Moi University** is a Kenyan public university located in Eldoret, western Kenya, est. in 1984, over 20,000 students in 2007
- **Kenyatta University**
- **Jomo Kenyatta University of Agriculture and Technology**
- **Maseno University**
- **Egerton University**
- **Masinde Muliro University of Science and Technology**

Public spending on education, total (% of GDP) in Kenya was 6.67 as of 2010

Main public Universities in Mozambique

Eduardo Mondlane University (UEM) founded in 1962 is the oldest and largest university in Mozambique, located in Maputo, 27,000 students, Faculties: Marine and Coastal Sciences, Communication and Arts, Agronomy, Veterinary, Arts and Social Sciences, Hospitality and Tourism, Engineering, Education, Architecture, Law, Science, Medicine, Economics

Pedagogical University (UP), main campus is located in Maputo, over 16,000 students

Catholic University of Mozambique (UCM)

founded in 1996, currently has locations in central and northern Mozambique, ca. 3,500 students

Public spending on education, total (% of GDP) in Mozambique was 5.01 as of 2006



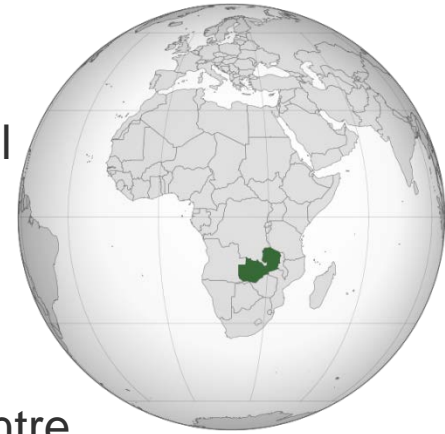
Main public Universities in Zambia

University of Zambia est. 1966 (ca. 10,000 students),
faculties: Agricultural Sciences, Engineering, Education,
Humanities and Social Sciences, Law, Mines, Medicine, Natural
Sciences, Veterinary Medicine

Copperbelt University est. 1987, located in Kitwe, ca. 5,000
students, faculties: Engineering, Mathematics and Natural
Sciences, Natural Resources, Business, Built Environment, Centre
for Lifelong Education (CLLE), Medicine, Mines and Mineral
Sciences, Dag Hammarskjold Chair for Peace, Human Rights and
Conflict Management

Nkrumah University is Zambia's largest teacher training
university, founded in 1971, 6,000 students

**Public spending on education, total (% of GDP) in Zambia was
1.35 as of 2008**



Main public Universities in Cameroon

- **University of Yaoundé I & II**, leading university in Cameroon, located in Yaoundé and Soa, est. in 1962, has faculties of law, arts, and science. A total of more than 19,500 students are enrolled in institutions of higher education, was selected as the Central Africa node for the post-graduate Pan-African University
- **University of Dschang**
- **University of Douala**
- **University of Ngaoundéré**
- **University of Buea**
- **University of Bamenda**
- **University of Maroua**



Public spending on education, total (% of GDP) in Cameroon was 3.22 as of 2011

Main public Universities in Ghana

- **University of Ghana** in Legon, Accra, est. in 1948, 38,000 students
- **Kwame Nkrumah University of Science and Technology (KNUST)**, est. in 1952, 24,000 students
- **University of Cape Coast**, est. in 1961
- **University of Education (UEW)**, Winneba
- **University for Development Studies (UDS)**
- **University of Mines and Technology (UMAT)**
- **University of Health and Allied Sciences**
- **University Of Energy And Natural Resources**



Public spending on education, total (% of GDP) in Ghana was 8.22 as of 2011

Main public universities in Senegal

- **Cheikh Anta Diop University (UCAD)**, also known as the University of Dakar, over 60,000 students, the focus of the university is science and technical studies
- **Gaston Berger University (GBU)**, located outside Saint-Louis, founded 1996, over 5500 students
- **Ziguinchor University**
- **Thies University**
- **Alioune Diop University**



**Public spending on education, total (% of GDP)
in Senegal was 5.63 as of 2010**

Working Groups

Feedback, Ideas, Plans & Recommendations:

Group 1: **Sustainability** Room 114

Group 2: **Health** Room 107

Group 3: **Mobility & Identity** Room 206

Recommendations & Way forward

(Members of National Steering Committee NSC)

Further to the selected countries were made by members of the NSC

- Collaboration with NGOs
- Collaboration with regional organisations
- Expand on the idea of collaborating with pan-African organisations such as Codesria or African Union AU
- Focus on countries
 - where the engagement of Swiss researchers is small but has potential
 - with a certain political stability
 - where Swiss companies are already active in
- Focus on Kenya in areas relating to reinforcing clinical research competences and other competences that may help with the development and registration of new medicines
 - Fostering of bio-entrepreneurship & establishment of innovation parks

Conclusion

Based on the results of the mapping process and the feedback from participants of the Info Day the Leading House has further developed its outlines for 2013 – 16 entailing

- 1) to give preference to a regional approach and to include by that the following geographical areas:
 - a. French Speaking countries in Western Africa with **Senegal** and **Cameroun** and linking to the RESCIF engineering network
 - b. **Ghana** and its developed higher education system
 - c. Eastern Africa with **Kenya** and **Uganda**
 - d. South Eastern African region with **Zambia** and **Mozambique**
- 2) to focus on institutional hotspots in the designated partner countries

Kick-Start Instruments

Funding Instruments:

- to finance kick-start activities with partners in Africa to incentivize and expand collaboration between Swiss and African researchers
 - 1) **Exchange visits**
 - 2) **Joint seminars**
 - 3) **Joint Workshops**

Financial volume:

- For 2013 – 16, a total of 480'000 CHF is available for kick-start projects; individual applications shall not exceed 10'000 CHF
- Swiss researchers can apply for travel grants & daily allowances for incoming researchers on the basis of current SNSF rates
- The Swiss – African kick-start funding is complimentary to all other funding sources in Switzerland.

Thank you



University of Basel