



# Research4life and Open Access: Impact on access to e-resources in Africa



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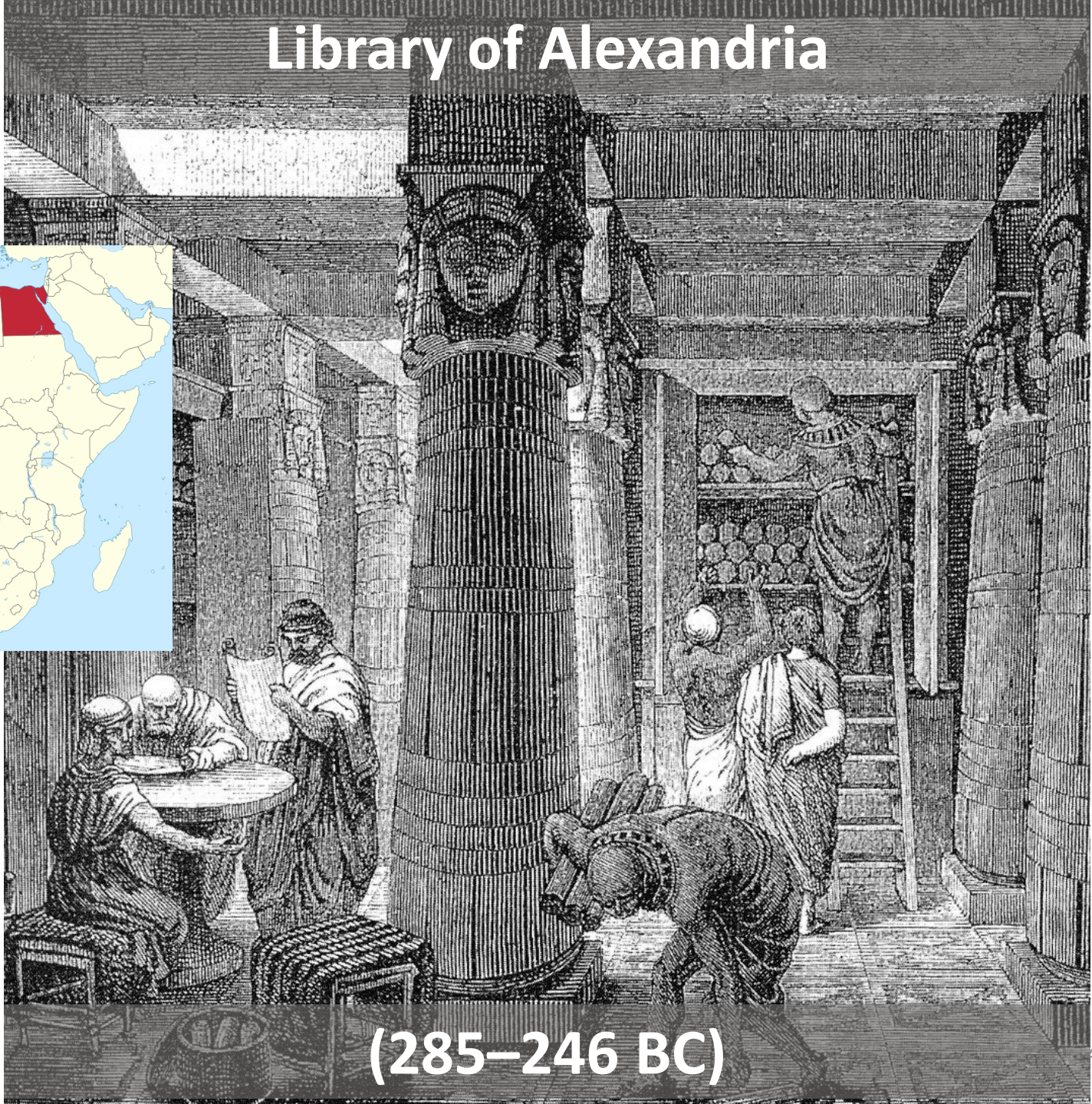
# **The ancient libraries of Africa**

The “University” of Timbuktu, was established in the 12th century. Teaching included Islamic studies, geography, **mathematics, the sciences and medicine.**



700,000 collections

# Library of Alexandria

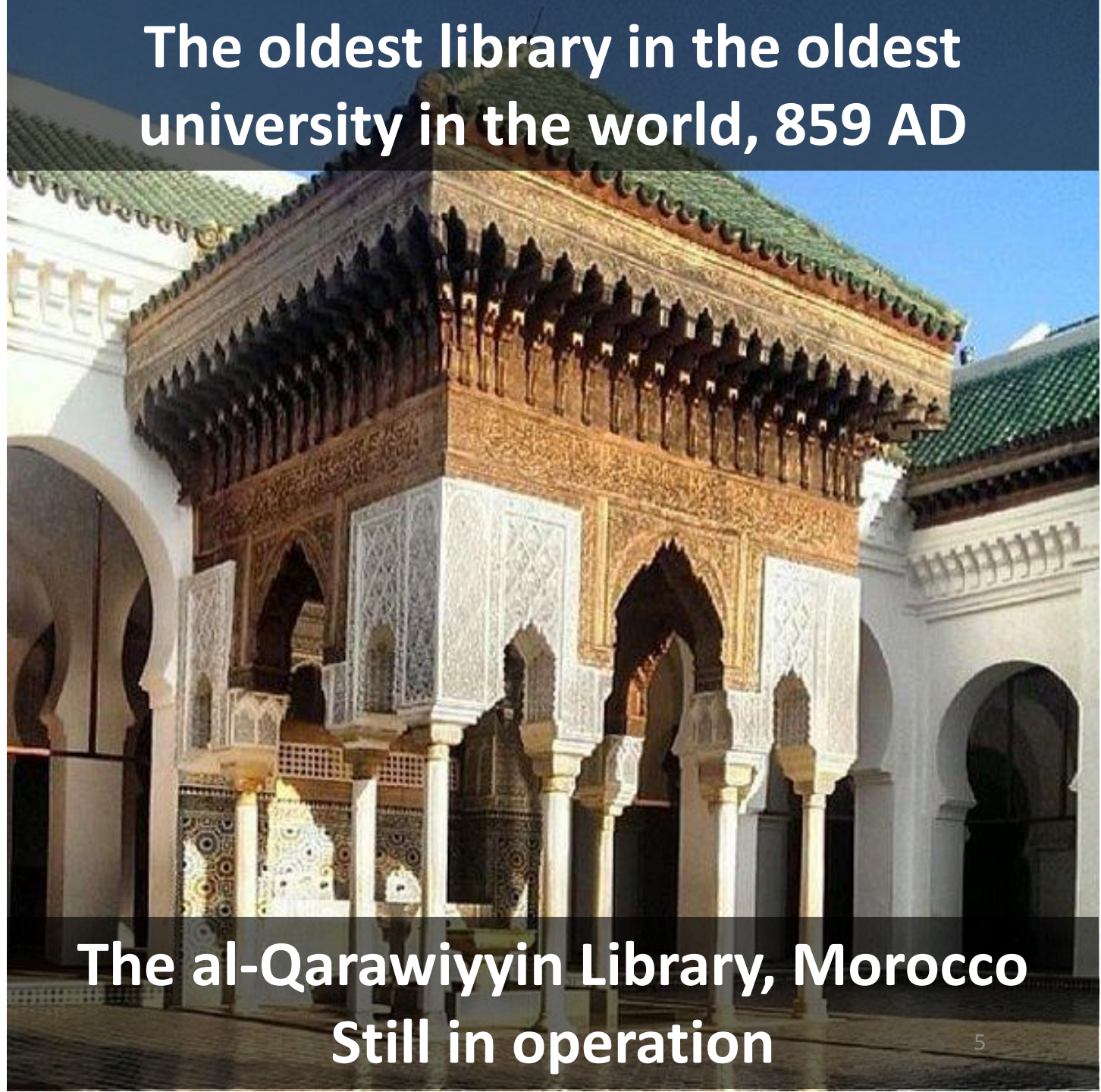


(285–246 BC)

**The oldest library in the oldest  
university in the world, 859 AD**



**MOROCCO**



**The al-Qarawiyyin Library, Morocco  
Still in operation**

Oldest and most complete Bible



# THE GARIMA GOSPELS

## EARLY ILLUMINATED GOSPEL BOOKS FROM ETHIOPIA

Judith S. McKenzie and Francis Watson

*with Preface and Photographs by Michael Gervers  
and contributions by*

*Matthew R. Craxford, Linda R. Maccoslay, Sarah S. Norodoun,  
Andres T. Reyes, and Miranda E. Williams*

Ca. 650 AD

# Research in Universities in Sub-Saharan Africa (SSA)

50 Countries

SSA Universities before independence

1944

Only six (6) universities in SSA excluding S. Africa

SSA Universities at Independence

1950's -80's



Ibadan (1948)



Ghana (1948)



1950



Kinshasa (1954)



Khartoum (1956)



Makerere (1963)



1965

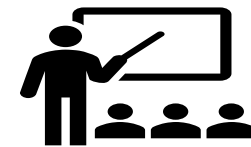


Nairobi (1970)



Dar es Salaam (1970)

Limited mandate of training professionals to run the newly independent state apparatus



... not much research ...

... SSA Universities included research in their mandate ...

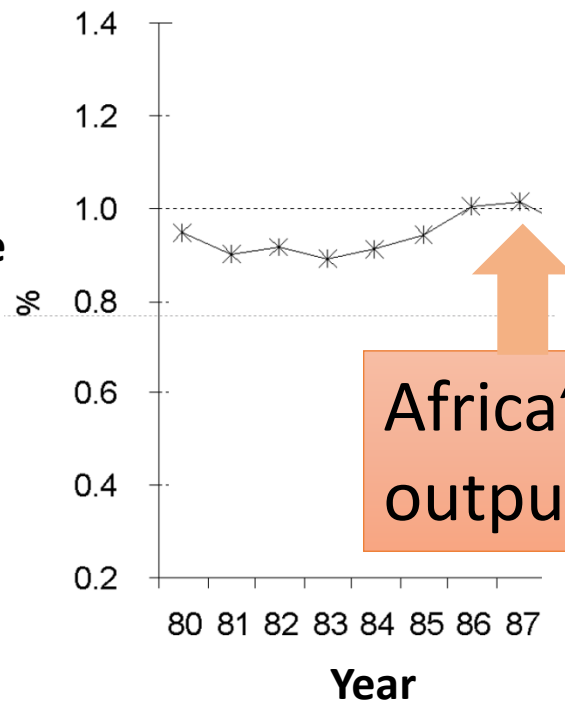
# Research in Universities in SSA contd.

1980 - 1987

Mandate expanded to include research

Subscription to hardcopies of journals

% of worldwide  
publication output in the  
international peer-  
reviewed journal  
literature



Africa's World publication  
output reached 1% in 1987

# Research in Universities in SSA contd.

**1980's and 1990's**

A period of lost opportunity for research

Periods of economic decline

Donor dependent economies

Imposition of SAP by World bank and IMF

- ☐ Reduction of funding to universities in favor of basic education
- ☐ SSA universities thrown into financial crisis
- ☐ SSA universities introduced austerity measures
- ☐ Forced to increase enrollment without commensurate increase in funding
- ☐ Reduced funding's for laboratories and libraries
- ☐ **Subscription to journals stopped in 1989 (UoN)**



**SSA share of world scientific papers declined from 1% in 1987 to 0.7% in 1996!**

# Challenges of accessing scientific literature in Africa

## Pre R4L and Open Access era – personal journey



UNIVERSITY OF NAIROBI

MSc (1997), PhD (2004)

... insufficient research is a major hurdle to growth and development in Africa ...

... conduct research to solve local challenges and contribute to global knowledge ...

**“this requires standing on the shoulders of giants”**

**Journal subscription had stopped in 1989 following SAP.**

- Furthering knowledge was therefore difficult
- A lot of hustle to access scientific literature
- Visit University of Potsdam, Germany, 2002/03, to access the latest scientific literature for the writeup of thesis and publications.

“WHO survey undertaken in 2000 showed that 56% of institutions in countries with a gross national income per capita (GNIpc) of under US\$1,000 had no current subscription to any international journal”.

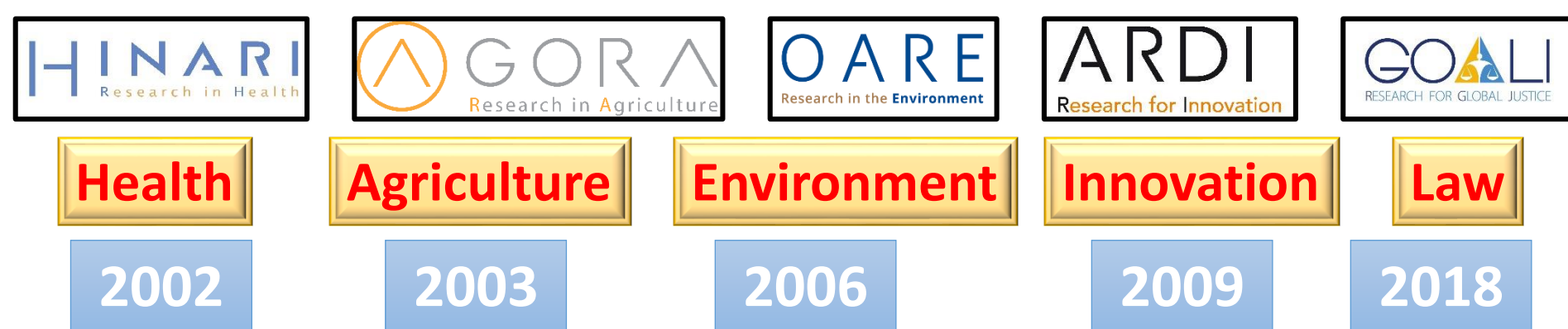
**Africa is 1.3 billion strong, the majority of whom are young capable of pulling the continent out of the myriads of challenges it is facing.**



**Addressing the barriers to conducting research, such as access to scientific literature, in Africa is a key step in attaining SDG's.**

# **Initiatives Geared Towards Improving Access to Scientific Literature**

Research4Life is the collective name for an initiative which encompasses five public private - partnerships.

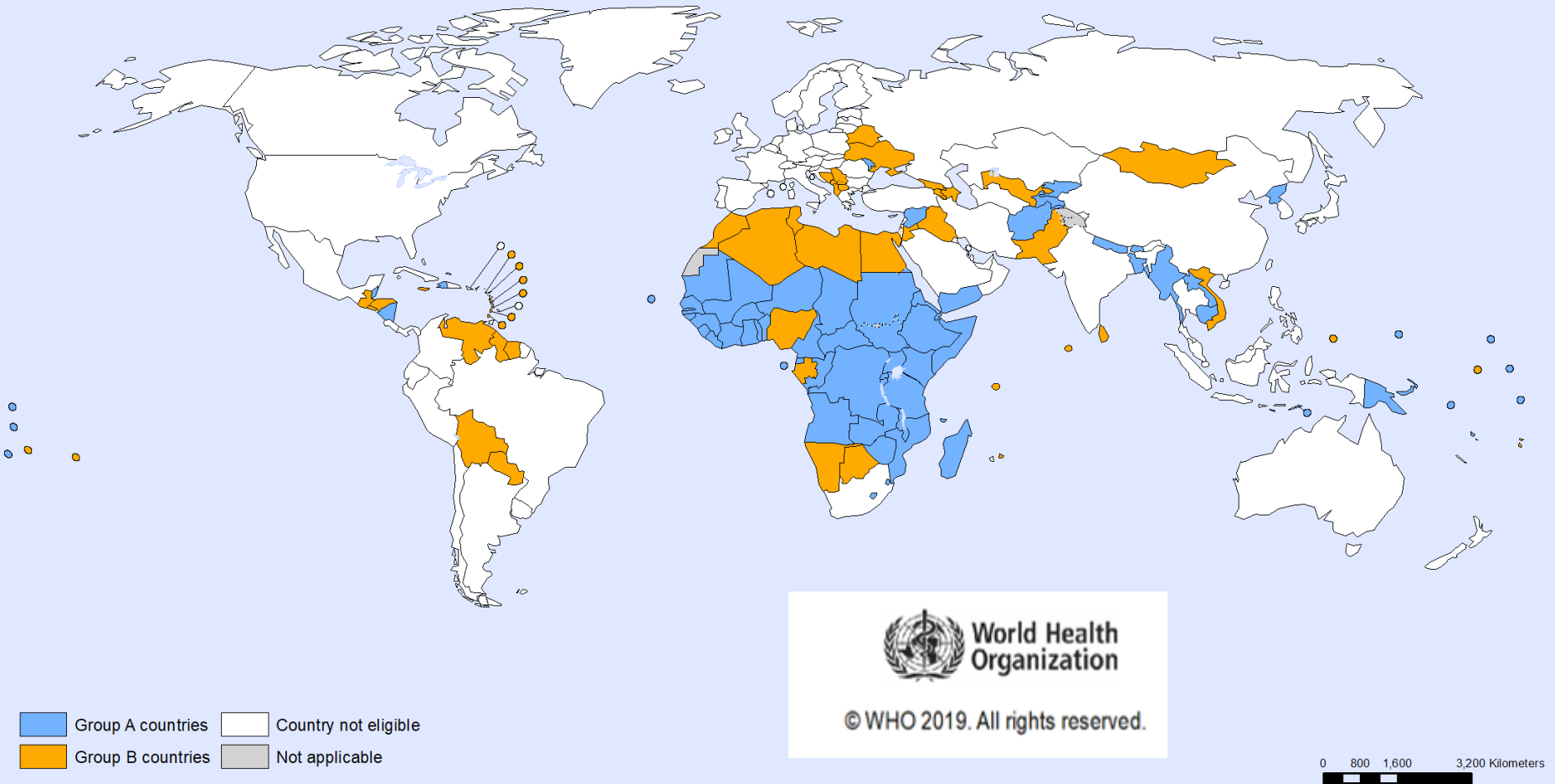


## Access to Research to the Developing World

Access to 85,000 journals, books and databases

This empowered libraries with access to scientific literature like never before.

# Countries, areas and territories eligible for Research4life



**Group A (free access, 69 countries)**

**Group B (USD 1500 per annum, 56 countries)**

# Some of the major academic publishing partners



Close to 195 publishers participate in the program.

# Royal Society of Chemistry Journals

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- ☒ **Analyst** (Royal Society of Chemistry) 1876 - continuing issue
- ☒ **Analytical Methods** (Royal Society of Chemistry) 2009 - continuing issue
- ☒ **Biomaterials Science** (Royal Society of Chemistry) 2013 - continuing issue
- ☒ **Catalysis Science & Technology** (Royal Society of Chemistry) 2010 - continuing issue
- ☒ **Chemical Communications (Cambridge)** (Royal Society of Chemistry) 1996 - continuing issue
- ☒ **Chemical Communications (London)** (Royal Society of Chemistry) 1965 - 1968
- ☒ **Chemical Society Reviews** (Royal Society of Chemistry) 1972 - continuing issue
- ☒ **Contemporary Organic Synthesis** (Royal Society of Chemistry) 1994 - 1997
- ☒ **CrystEngComm** (Royal Society of Chemistry) 1999 - continuing issue
- ☒ **Dalton Transactions** (Royal Society of Chemistry) 2003 - continuing issue
- ☒ **Discussions of the Faraday Society** (Royal Society of Chemistry) 1947 - 1971
- ☒ **Energy & Environmental Science** (Royal Society of Chemistry) 2008 - continuing issue

# Impact of Research4life on Research in Africa

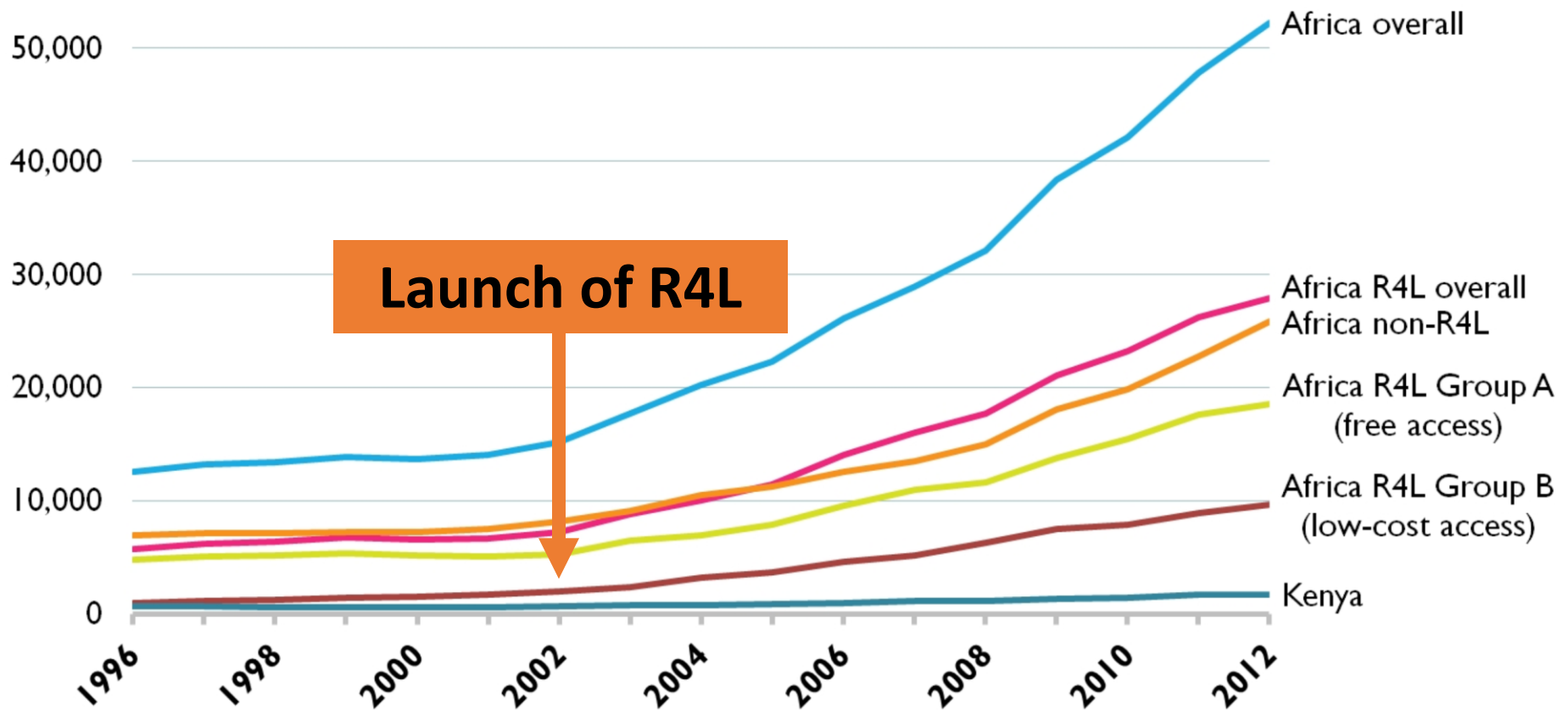


1. Access to research journals like never before (85,000)
2. Institutional capacities of SSA universities to support research improved
3. Researchers engage in state of the art research problems with shoulders of giants to stand on
4. Write journal articles and reviews in high impact journals

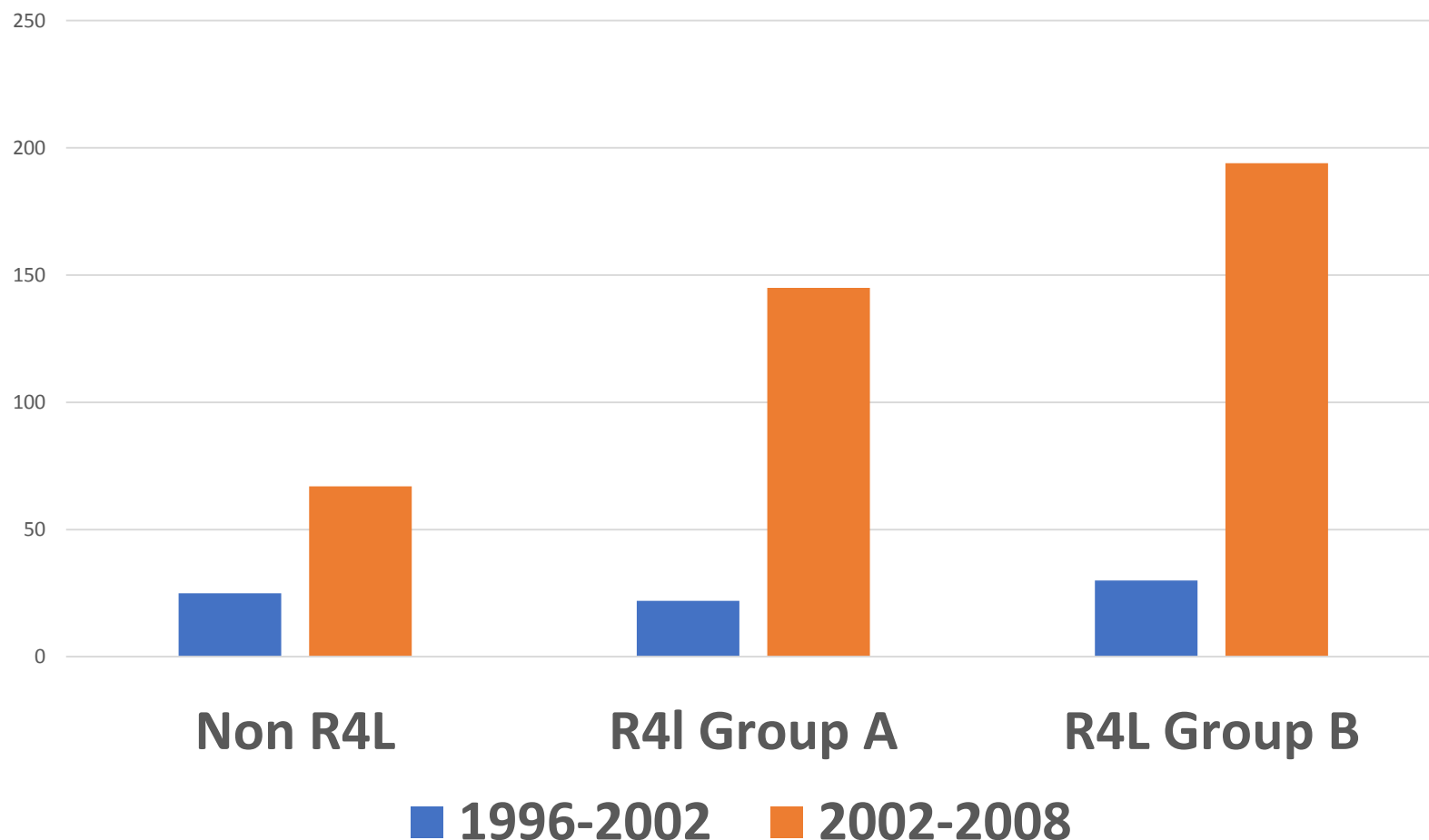
## Article share



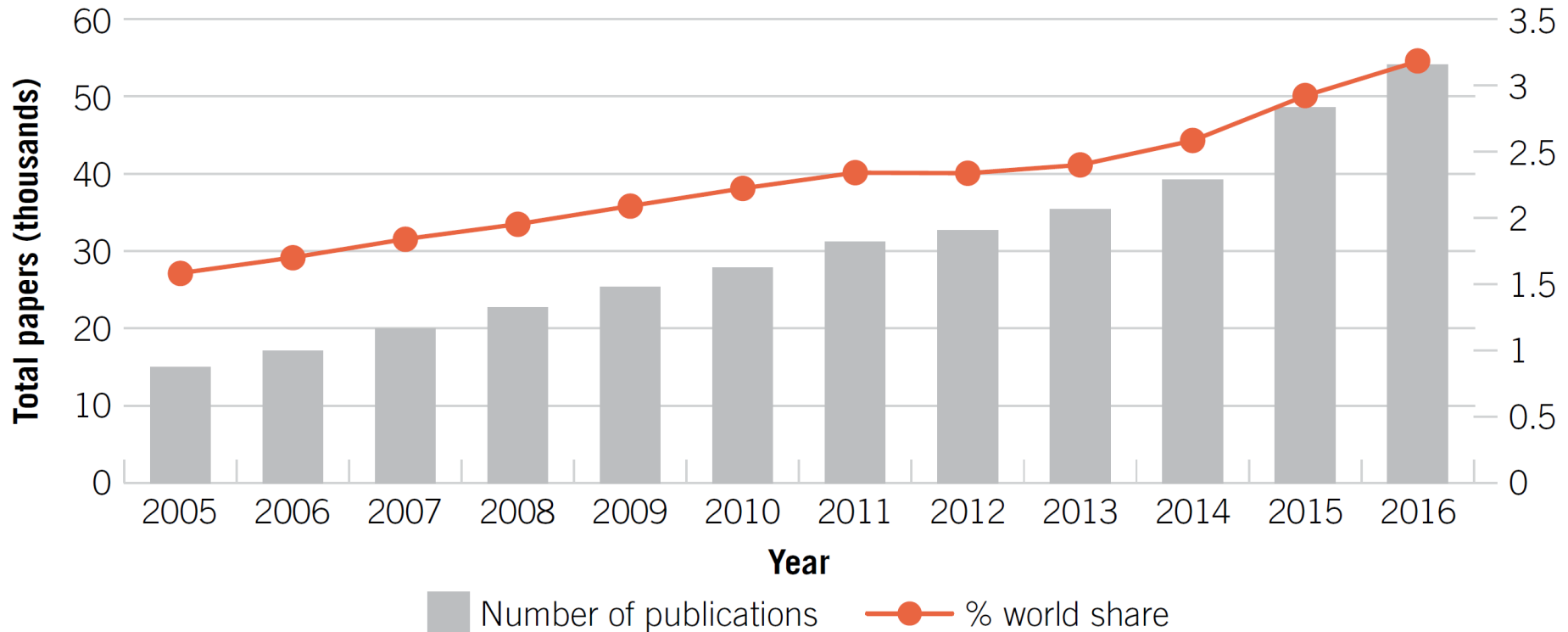
## Article count



## A sharp increase in Research Output in R4L Countries since its Introduction in 2002



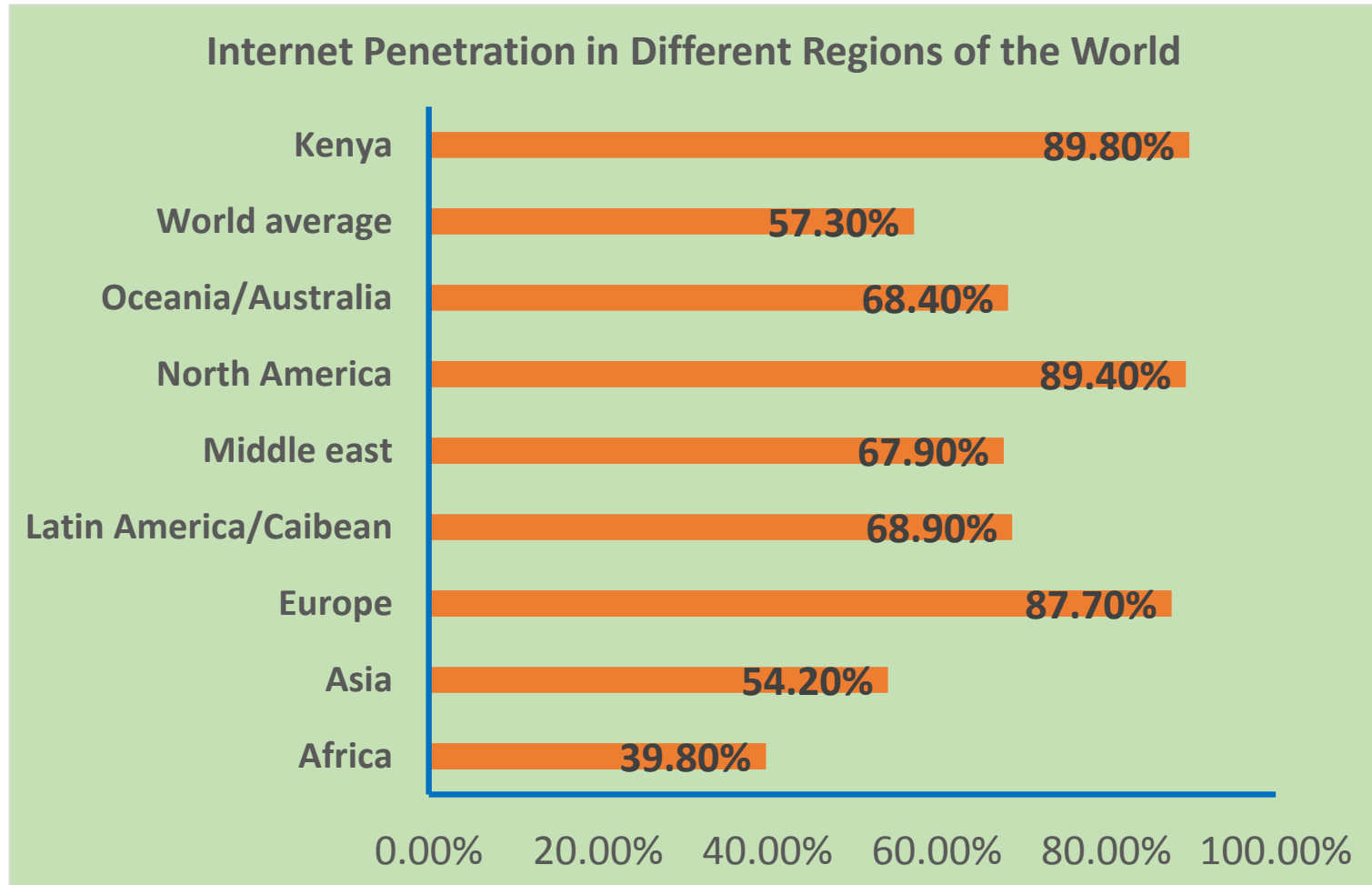
# Africa world share and number of scientific publications (articles and reviews only): 2005–2016



Africa's share of world publication output more than doubled from 1.5% in 2005 to 3.2% in 2016, the fastest growth in the world.

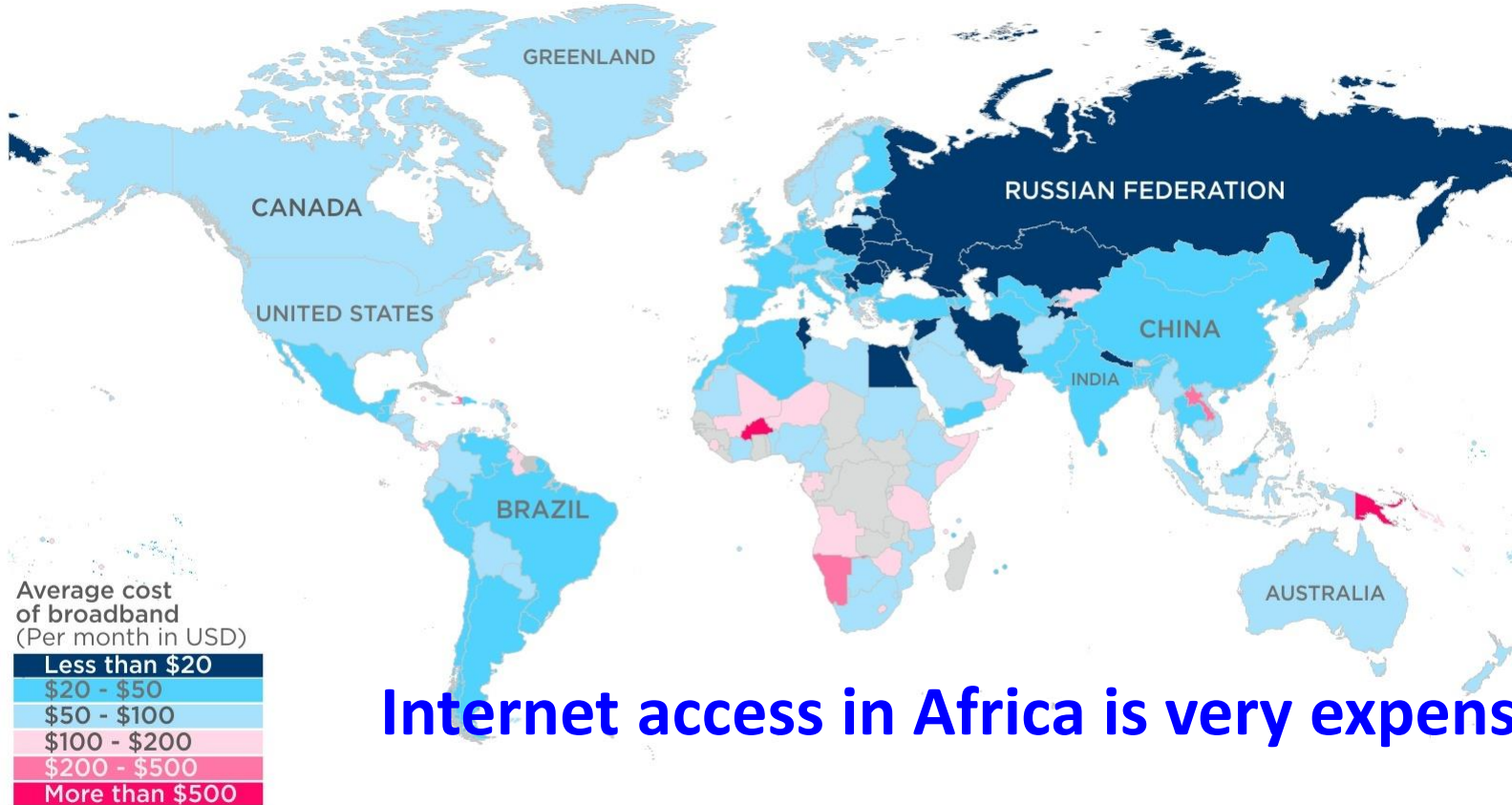
# Open access challenges in Africa

## I. Access to Internet



## II. High cost of internet connectivity

### The Cost of Broadband Internet



\* Prices as of December 14th, 2017

Article & Sources:

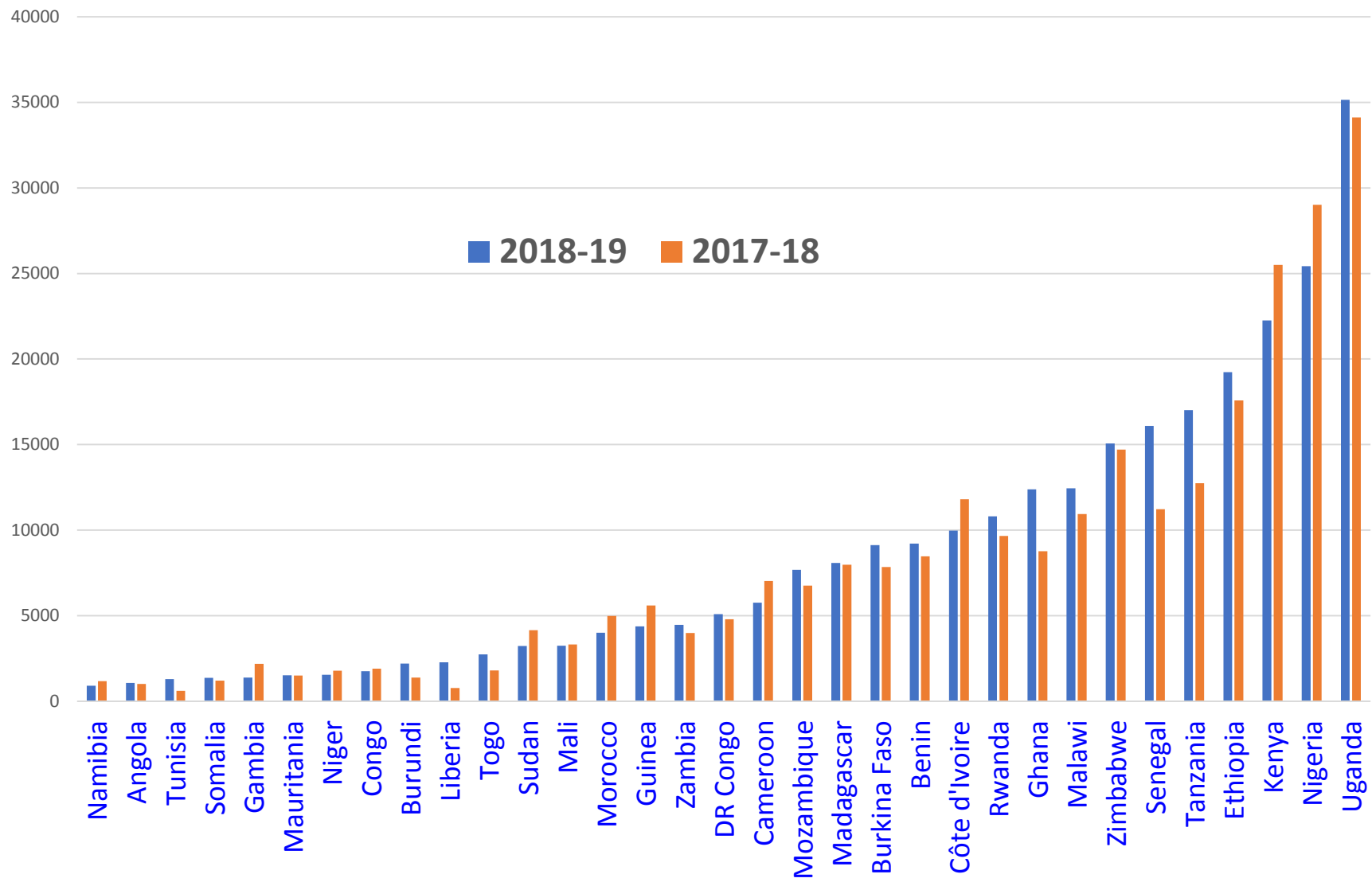
<https://howmuch.net/articles/cost-of-broadband-internet>

BDRC Continental and Cable.co.uk

howmuch<sup>net</sup>

## III. Lack of awareness of the R4L program

# R4L usage pattern between 2017 and 2019



## How to improve the reach of R4L



**Persuade more partners to  
join the program**



**Recruit and train R4L  
ambassadors/champions**



**Sustained awareness campaign**



**Reach out to graduate students  
thorough graduate schools**



**Conduct discipline specific campaign  
piggybacking on scientific events**

# My own campaign

## E-Library Resources



eRepository

DAAD

Deutscher Akademischer Austausch Dienst  
German Academic Exchange Service

## Citations and Reference Management Tools



Kenya

Rwanda

Sudan

Tanzania

Nairobi

Kisii

Kabianga

Maseno

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Mar  
05  
2020

Seminar: E-Resources and Reference Management Tools  
VOI, Kenya **Taita Taveta University**

May  
08  
2020

Seminar: E-resources and Reference Management Tools  
Bondo, Kenya **Bondo University**

# Acknowledgements

# DAAD

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German Academic Exchange Service

