

IRG expert workshop on measuring and monitoring innovation in South Africa

Is there Science in Africa?

Thursday 22 October 2009, 09:00 – 16:30



Stellenbosch Institute for Advanced Study (STIAS), Marais Street, Stellenbosch

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Outline

1. Introduction
2. Data Source and Methodology
3. Data Analysis
 - Results from Scopus
 - Results from AJOL
4. Brief discussion and possible solutions

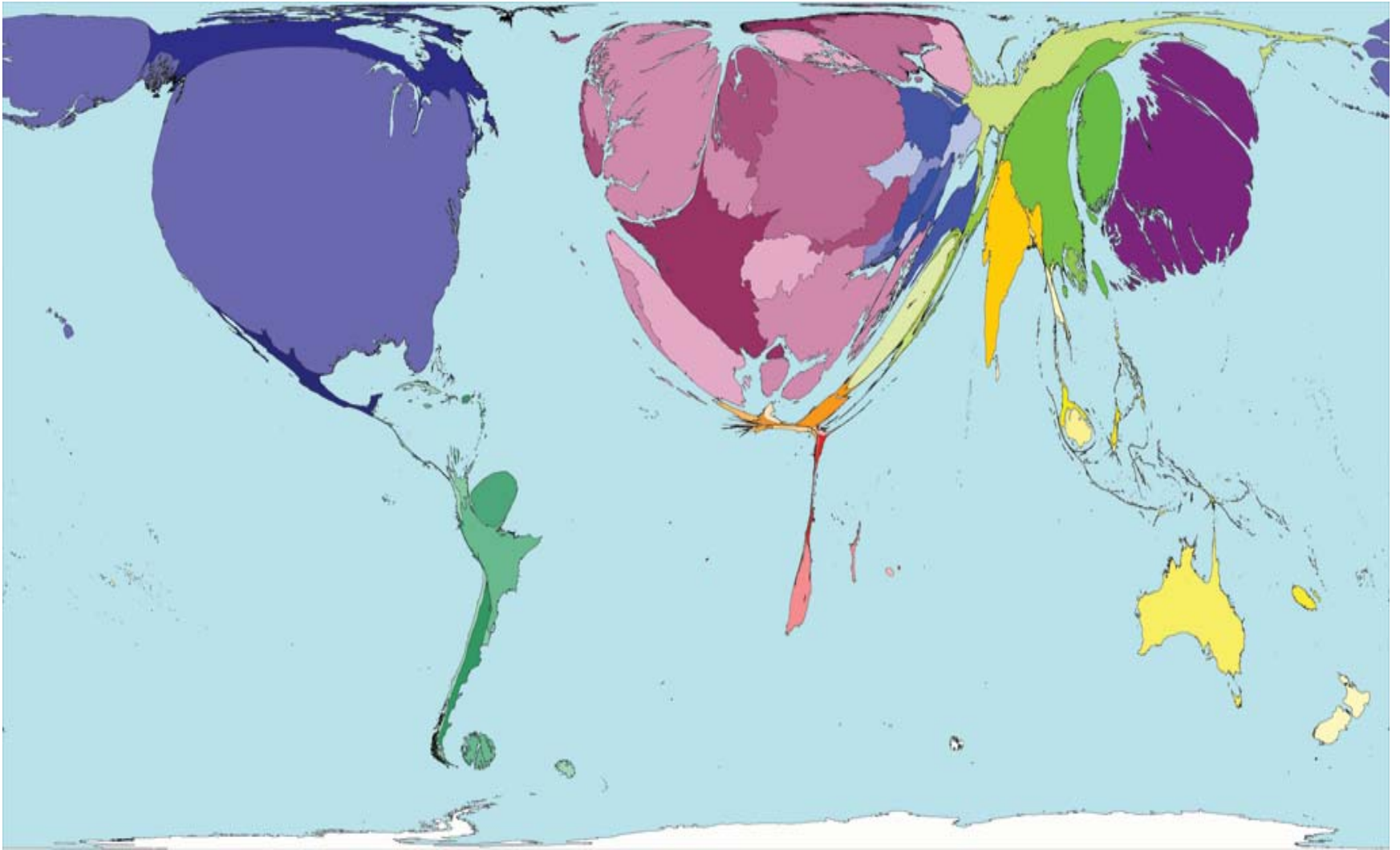


Introduction

- The advent of the global knowledge economy wrought by,
 - the proliferation of ICTs,
 - acceleration of knowledge production, dissemination and utilization,
 - the emphasis on intangible capital,
 - and incessant drive to innovate
 - has generated interest among developing countries, including African countries to transition or want to adopt knowledge-based economies
- The urgent need by African nations to create knowledge intensive societies has raised concerns about the visibility and quantity of “African Science”. Results postulated elsewhere and based on a number of international databases have prompted the question “Is there science in Africa?”



Science Research



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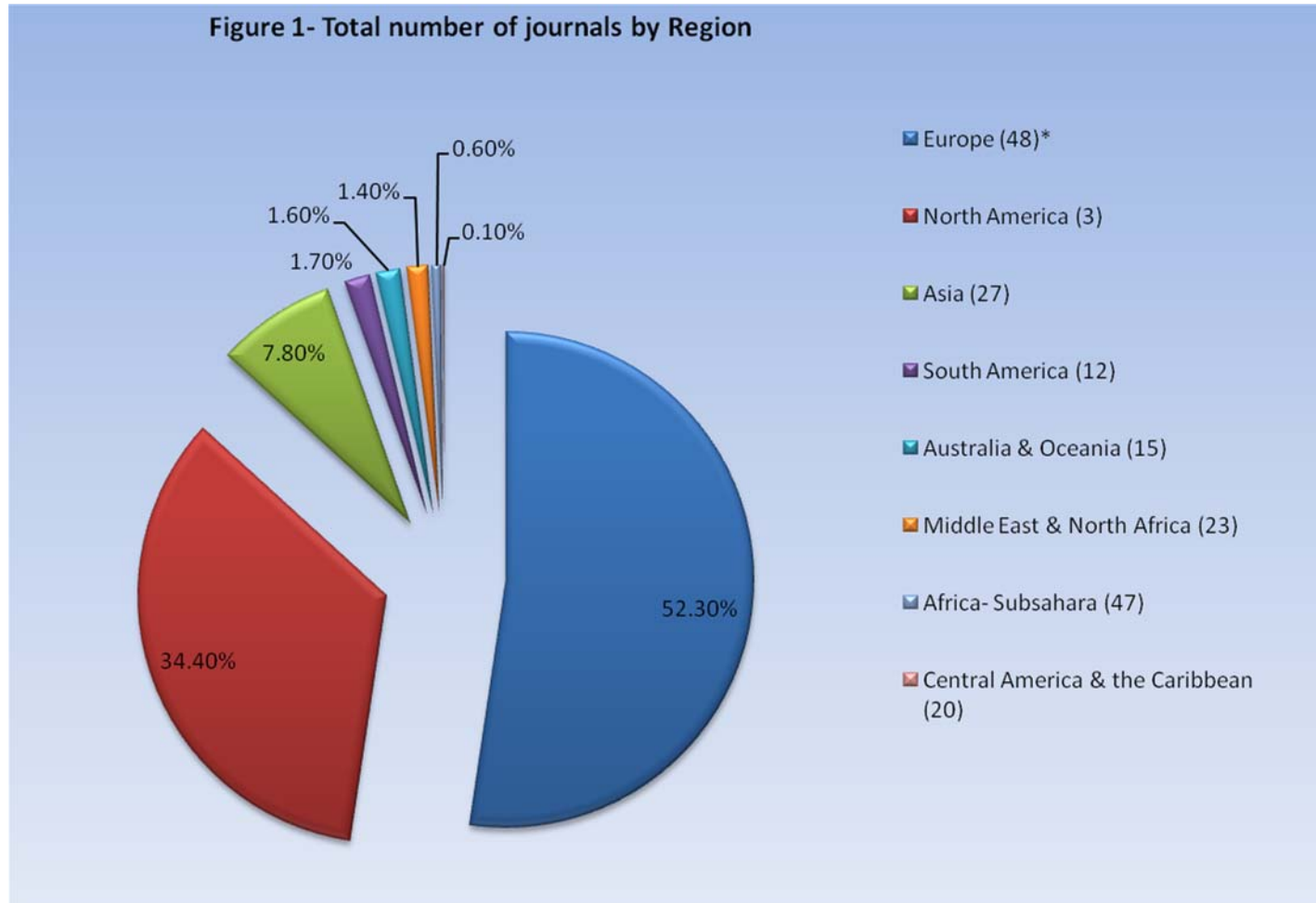
2. Data Source and Methodology

1. Quantitative analysis of journals published on the continent covered both in Scopus and in African Journals Online (AJOL).
- Scopus
 - 16,500 peer-reviewed journals (inc > 1,200 Open Access journals)
 - 600 trade publications
 - 350 book series
 - Extensive conference coverage (3.6 million conference papers)
 - 38 million records, of which:
 - 19 million records include references going back to 1996 (78% include references)
 - 19 million pre-1996 records go back as far as 1823.
 - AJOL
 - boasts coverage of 361 journals,
 - 4368 issues,
 - 45674 abstracts and
 - 31671 full text articles.



Data Analysis

Result 1

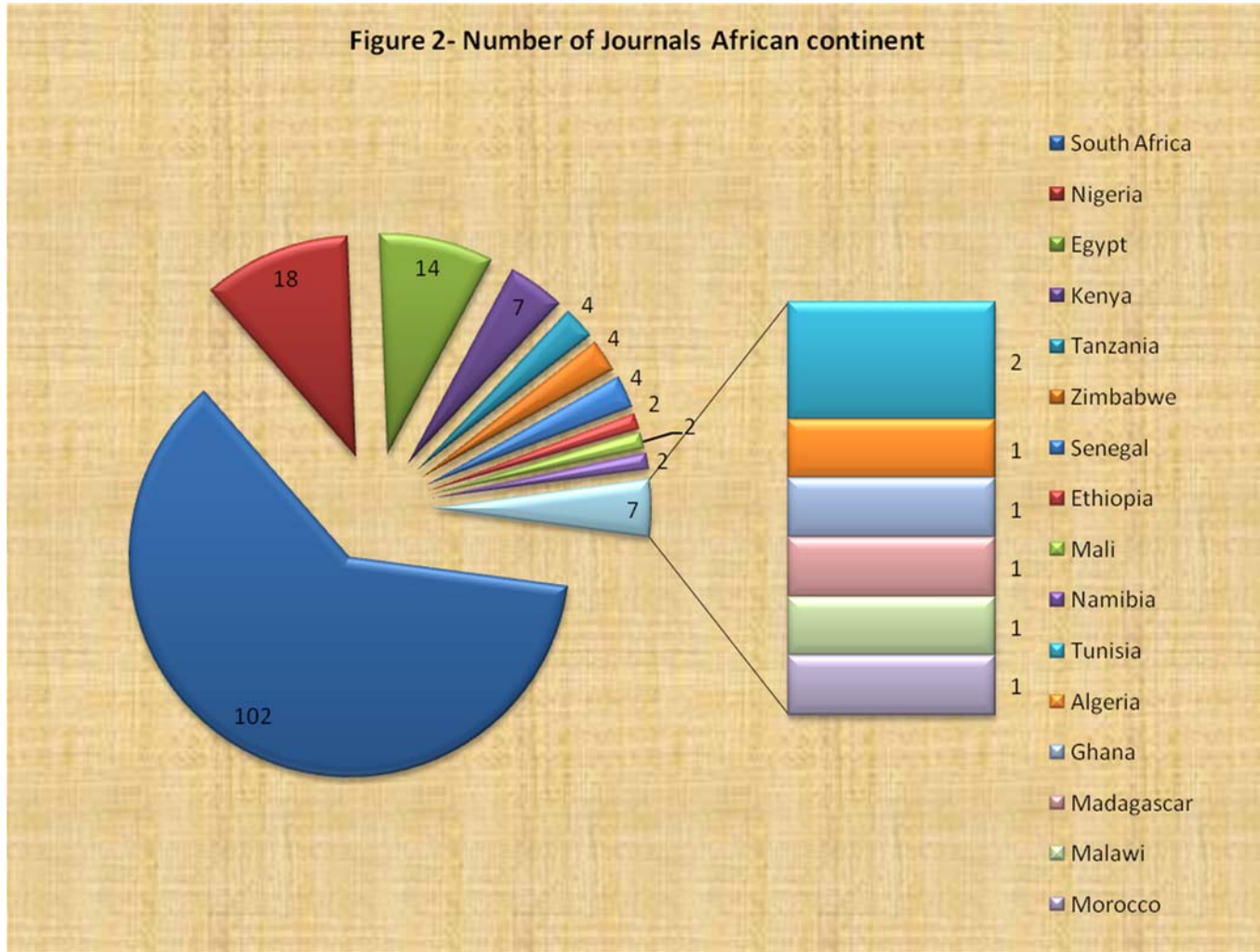


*Number of countries in the region



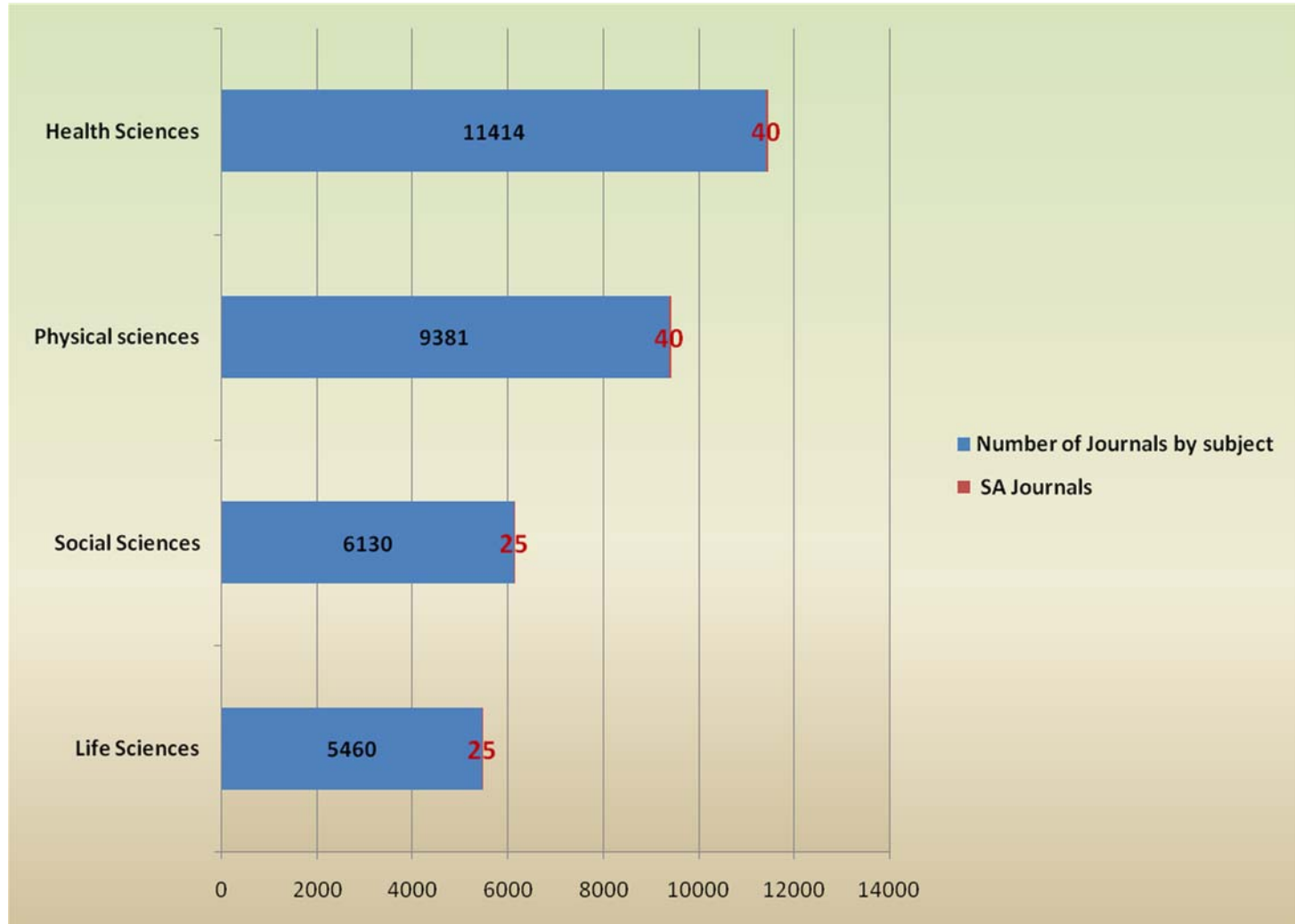
Results from SCOPUS

Result 2



Results from SCOPUS

Result 3



Results from SCOPUS

Result 4

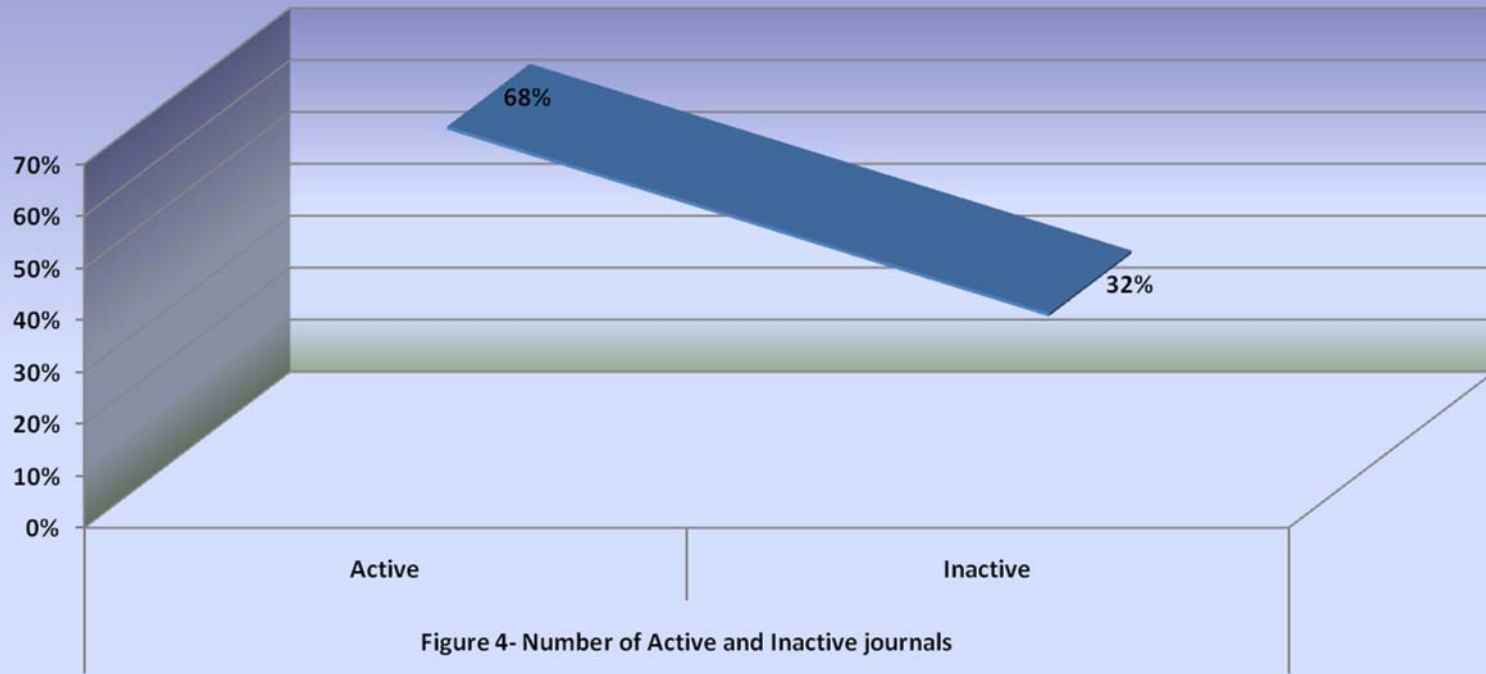


Figure 4- Number of Active and Inactive journals



Results from SCOPUS

Result 5

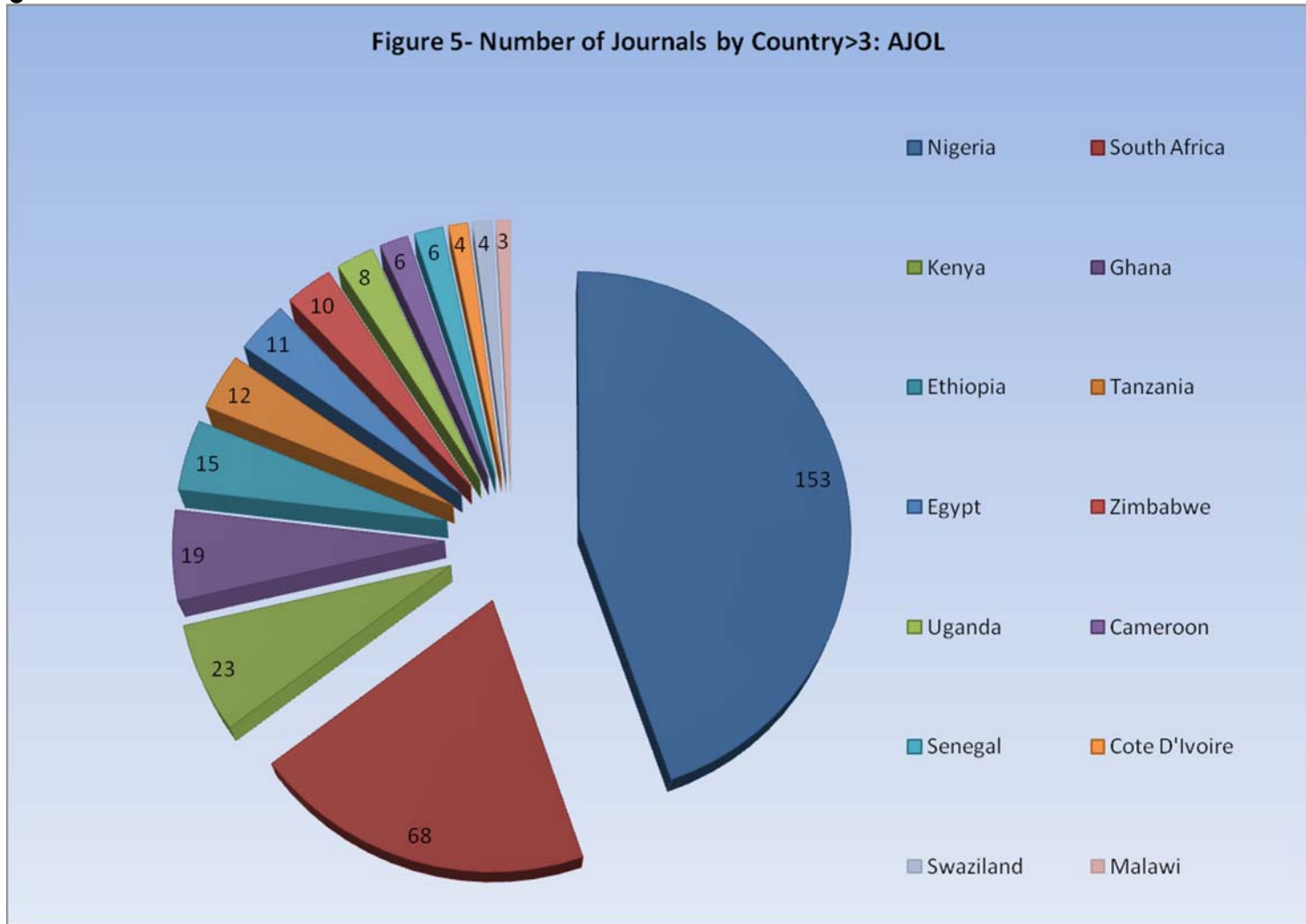
Table 1- Number of African journals “inactive in Scopus”

Country	Number of inactive
South Africa	24
Nigeria	7
Egypt	3
Kenya	3
Namibia	2
Tanzania	2
Algeria	1
Madagascar	1
Mali	1
Tunisia	1
Zimbabwe	1



Results from AJOL

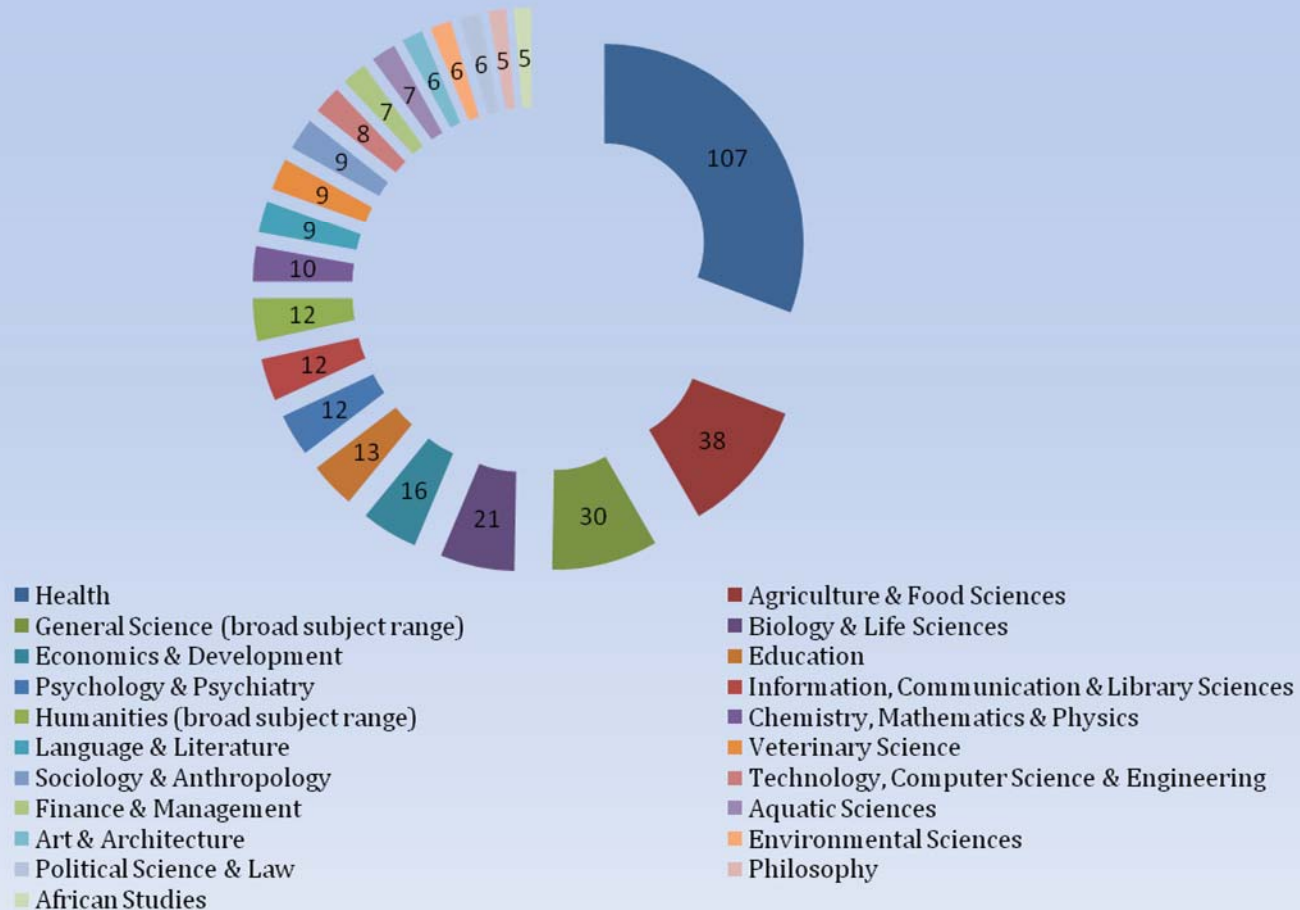
Result 6



Results from AJOL

Result 7

Figure 6: Number of journals by subject >5:AJOL



Brief discussion and possible solutions

1. Two main premises from the above data analysis:
 - International databases do little justice to science in the “South” especially “African Science”, the consequences of which include inter alia,
 - The view that there is no or little science visible on the continent
 - There are no reliable statistical data by which the performance of researchers, research institutions and national systems can be evaluated
 - Cement the erroneous perception that Africa is a place to collect samples for research abroad instead of one where science and scholarly research occurs
 - There are more peer-reviewed journals that could be covered in international databases if:
 - properly assessed and quality control mechanisms such as peer-reviewing are rigorously adhered to in order to ensure international standards.



Brief discussion and possible solutions

2. Peer-reviewed but still do not make it in international indices for various reasons:

- Insufficient ICTs and expensive bandwidth
- Domestic or regional focus of the journals
- The journal does not meet the standard set by the international indexing organization and is therefore rejected
- Lack of funding especially in the case of print journals
- Lack of contributors to the journal that may lead to the journal to shut down
- Persisting view: the quality of African journals is generally not good

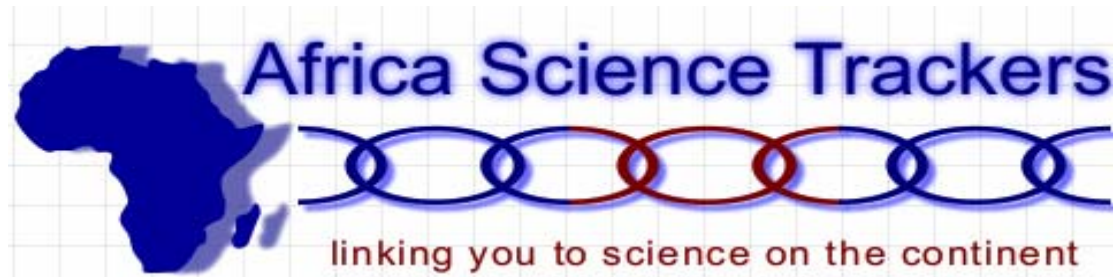


Brief discussion and possible solutions (contd)

3. Possible Solutions:

- Baseline study to profile journals published on the continent
- Inclusion of quality peer-reviewed journals from the region in the DoE accredited list
- Extend the reward system to the region
- Creation of an ALL-Africa Bibliometric database





Thank You

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