IEASA 25 YEARS 1997-2022
International Education Association of South Africa

Macro-level factors impacting international research collaboration in South Africa

Dr Divinia Jithoo and Dr Savo Heleta
Durban University of Technology, South Africa

25th Annual Conference I 22-25 August 2023
DURBAN I SOUTH AFRICA
ieasa-conference.studysa.org

Macro-level factors impacting IRC

There are significant macro-level factors impacting South African higher education institutions and their ability to engage in international research collaboration (IRC) that leads to co-authored scholarly output.

The history of the country, economic power and development opportunities, geopolitics, and institutional, national, regional, and global structural dynamics impact research capacity, infrastructure, resources and agendas across the globe.

In this presentation, we will unpack some of the key macro-level factors, and then discuss the challenges that researchers from South Africa face when engaging in international research collaboration (IRC).

Macro-level factors impacting IRC in South Africa

Country's history – colonialism and apartheid – impact and influence on higher education, internationalisation and research collaboration.

Geopolitics before 1994 – international research collaboration between historically white universities with the institutions in the United States-led block during the Cold War.

Colonial, neocolonial and ideological ties were key factors driving academic collaboration between South Africa and countries in the Global North/West (Sooryamoorthy, 2009).

During apartheid, scholarly research was not part of the mandate at historically black universities.

Source: Luukkonen, Persson & Sivertsen (1992)

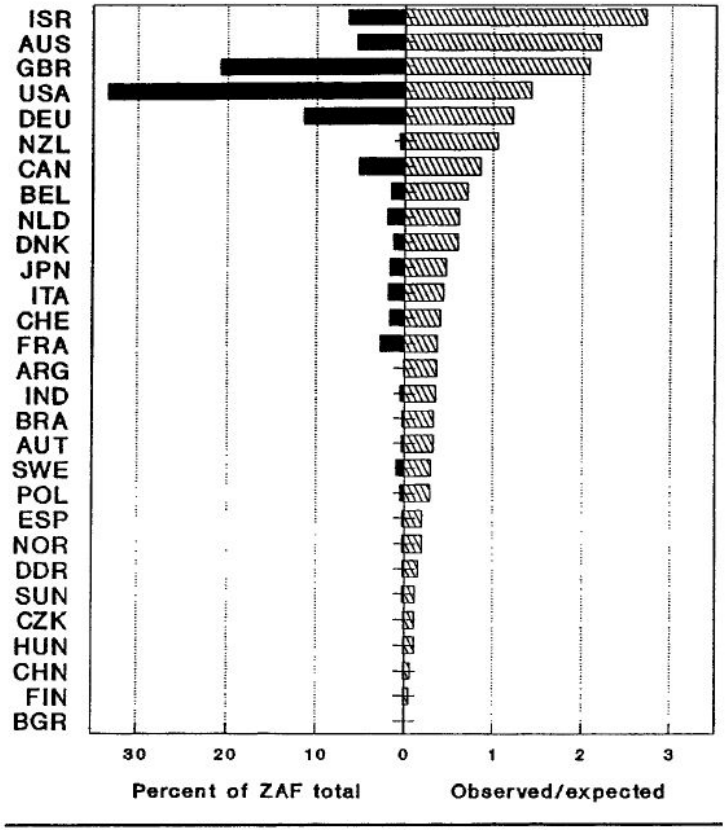
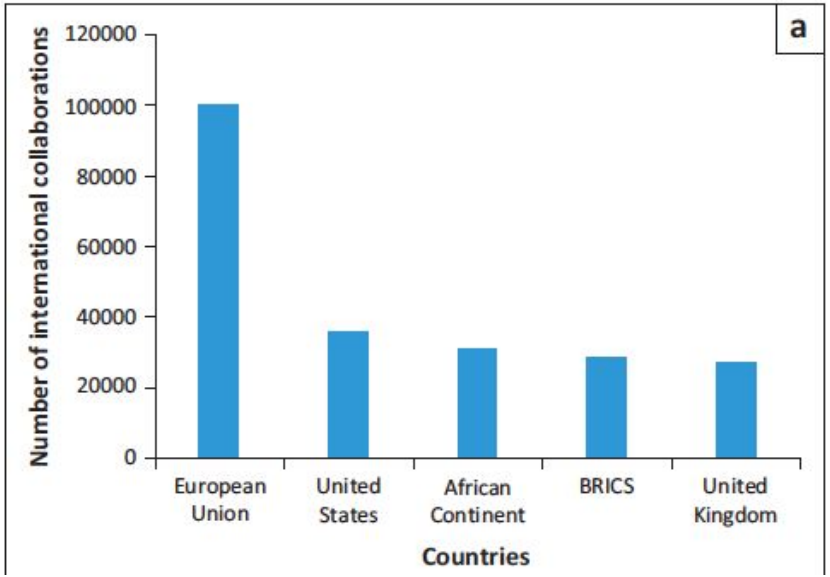


Figure 7. South Africa: priorities in coauthorship relations, all fields combined, 1981-86.

Macro-level factors impacting IRC in South Africa

Geopolitics and coloniality after 1994 – collaboration primarily with the Global North.



Source: Heleta & Jithoo (2023)

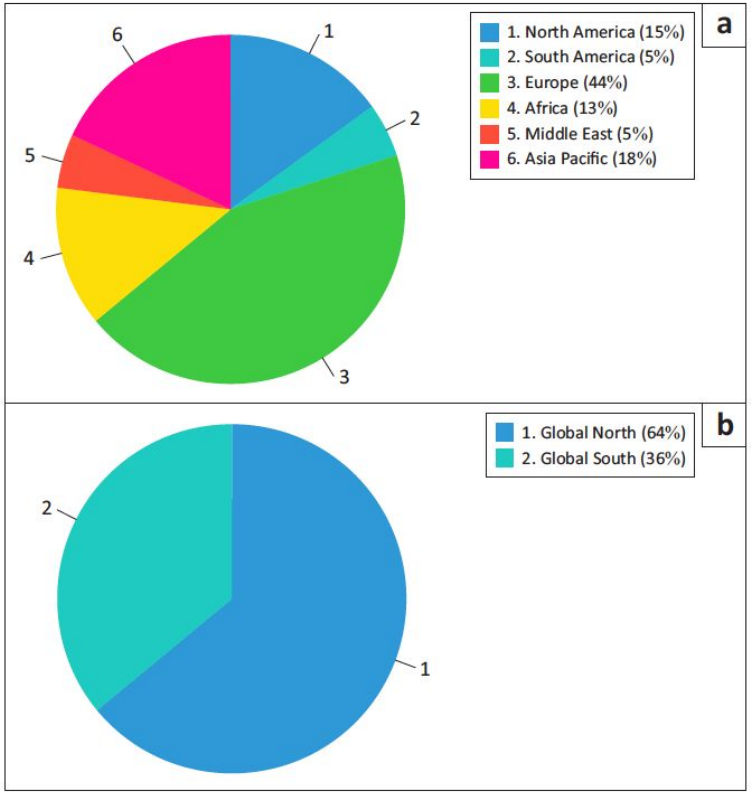


FIGURE 6: South Africa's international research collaboration, 2012–2021 by regions (a) and by global breakdown (b).

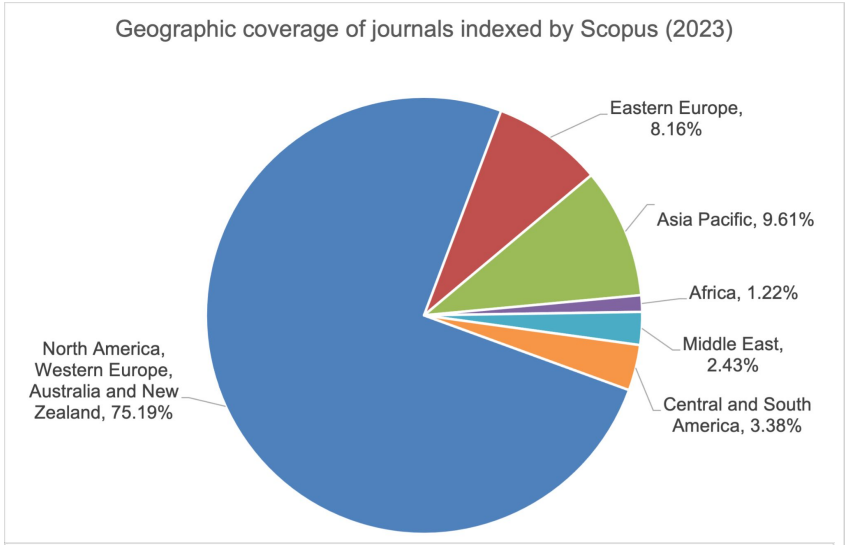
Structural dynamics and factors

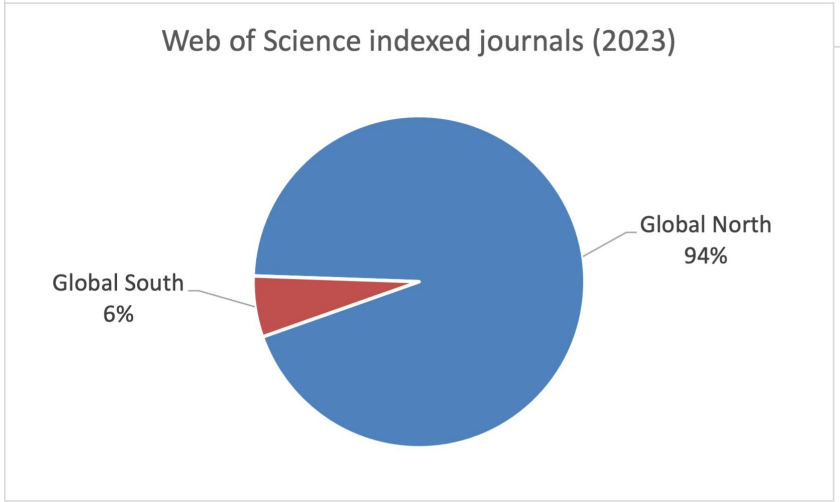
Coloniality of knowledge.

Bibliometric coloniality.

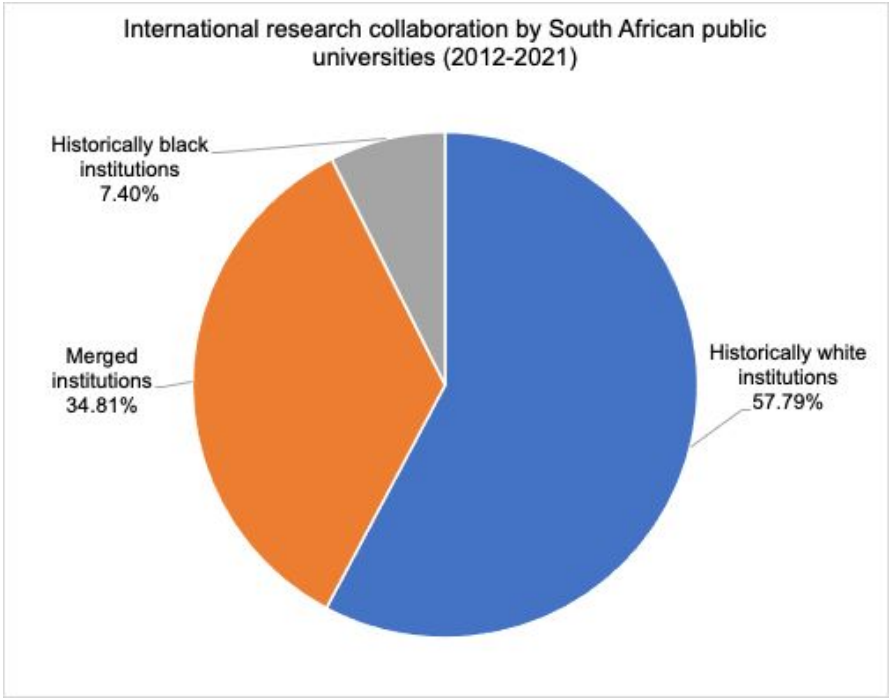
Dominant definitions, concepts and practices of internationalisation from the Global North and their replication in the Global South.

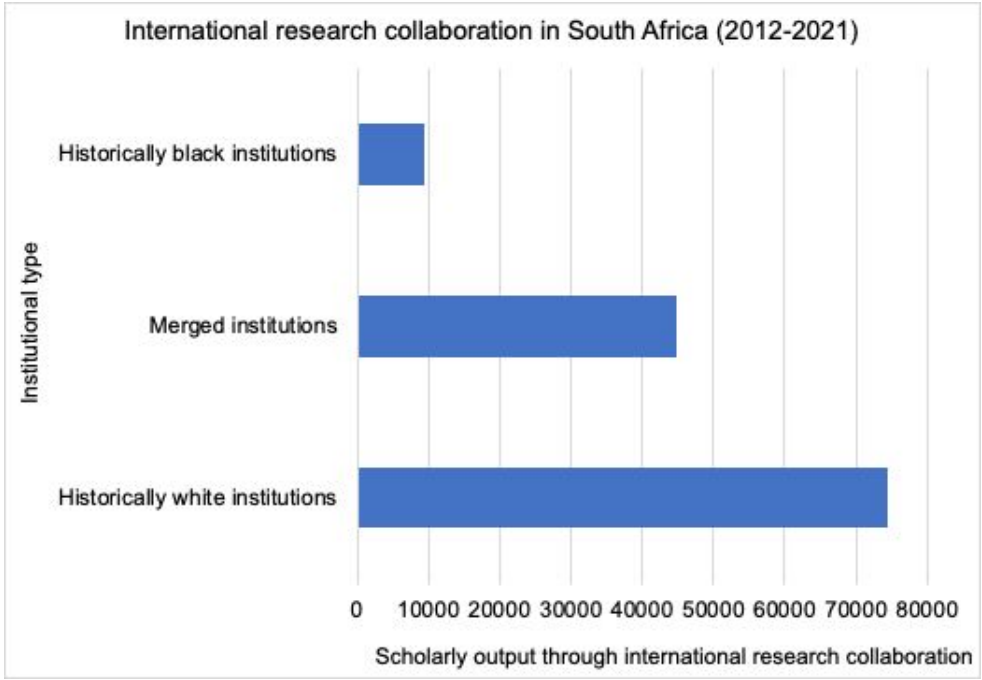
Lack of funding for collaboration – dependence on funding from the Global North.



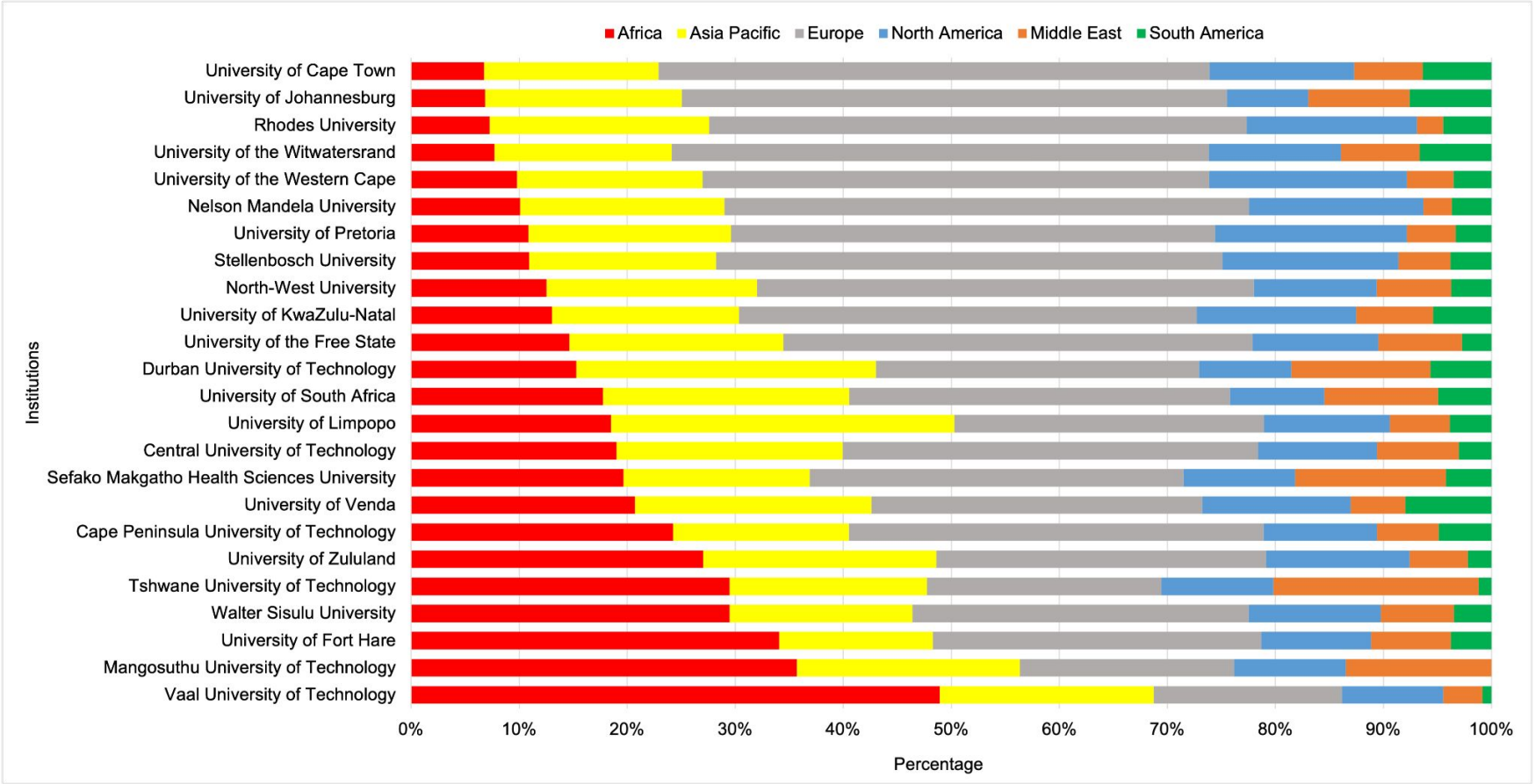


Research capacity and infrastructure





Institutional priorities in IRC



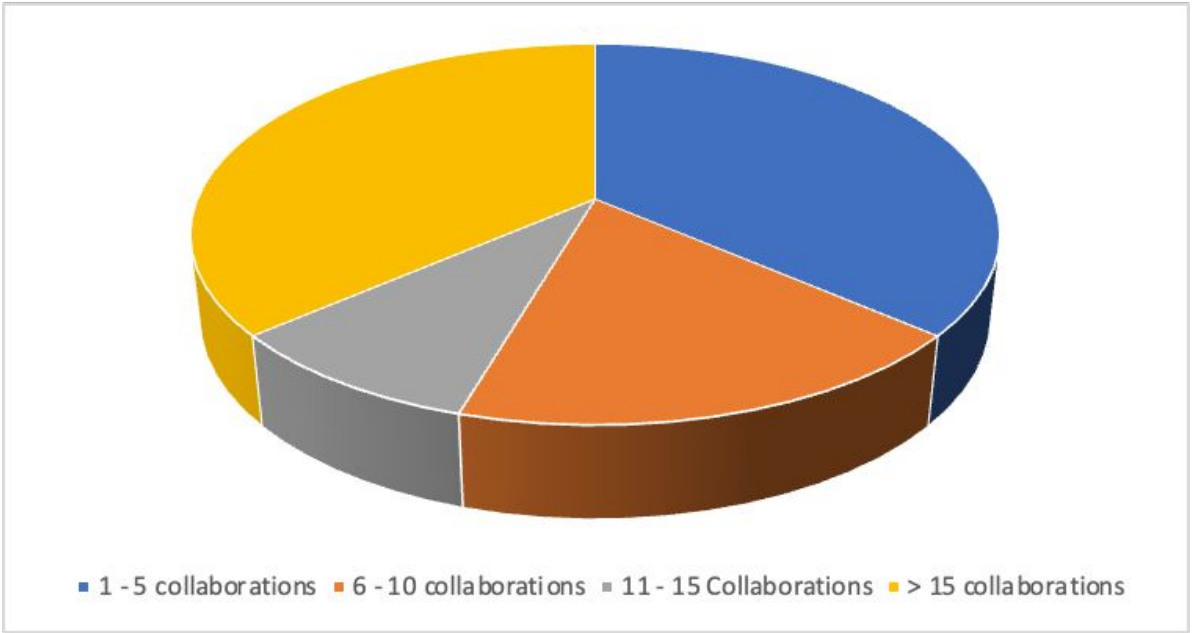
Identity, demographics and research collaboration choices?

Schubert and Sooryamoorthy (2010: 191) argue that the reason for significant IRC between South Africa and India is the fact that ‘South Africa has a large share of Indian population. They also form a vital part of its science system, where the large share of co-publication with the Indian sub-continent then resembles the scientists’ ethnological roots.’

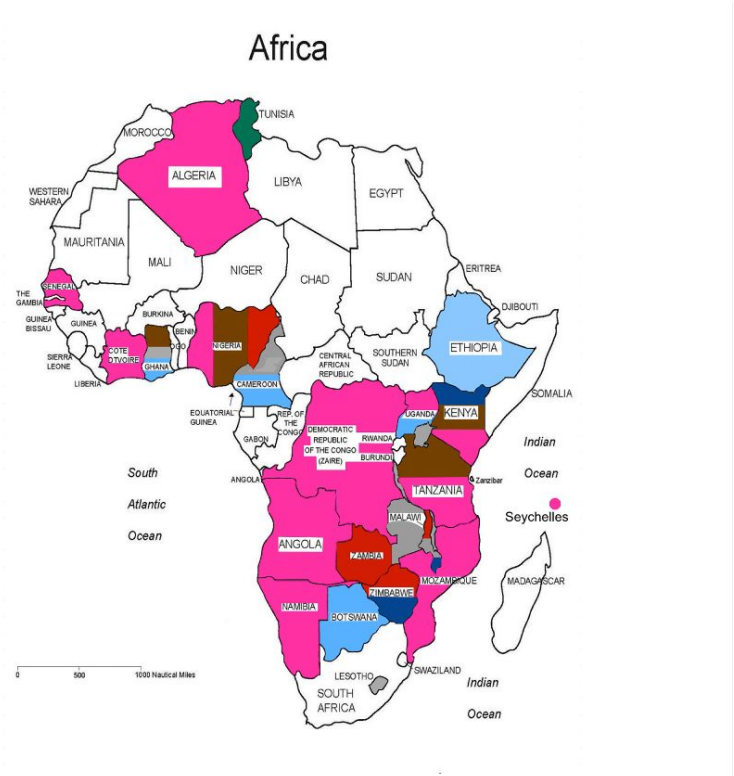
If we follow this argument, can we also say that the reason for the overwhelming collaboration with the Global North at historically white universities is that white academics prefer to work with their white counterparts in United States, Europe and Australia due to their ‘ethnological roots’?

Does this explain the overwhelming focus on collaboration with the Global North at institutions such as Stellenbosch University (70.7% of all academic staff in 2021 were white), University of Pretoria (64.8%), University of the Free State (62.4%), North-West University (60.4%), Rhodes University (55.7%), University of Cape Town (55.2%), and University of Witwatersrand (49.8%) (Department of Higher Education and Training, 2023).

The case study of South African research-intensive universities in intra-African academic collaborative research



Number of Intra-African Collaborative Academic Research Projects
Source: Researcher's own Construction (2022)



University Green	University Brown	University Red	University Grey	University Light Blue	University Blue	University Purple	University Pink

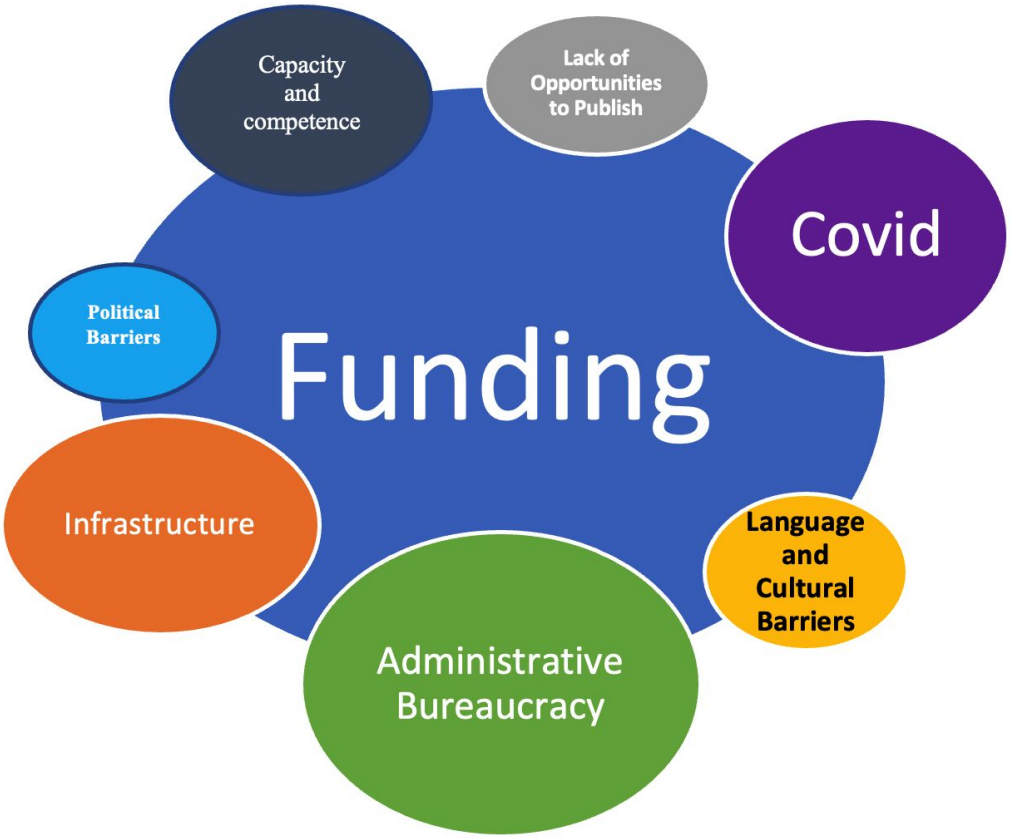


Figure 4.13: Challenges faced by intra-Africa Academic Collaborative Research Team Leaders
Source: Researcher's own Construction (2022)

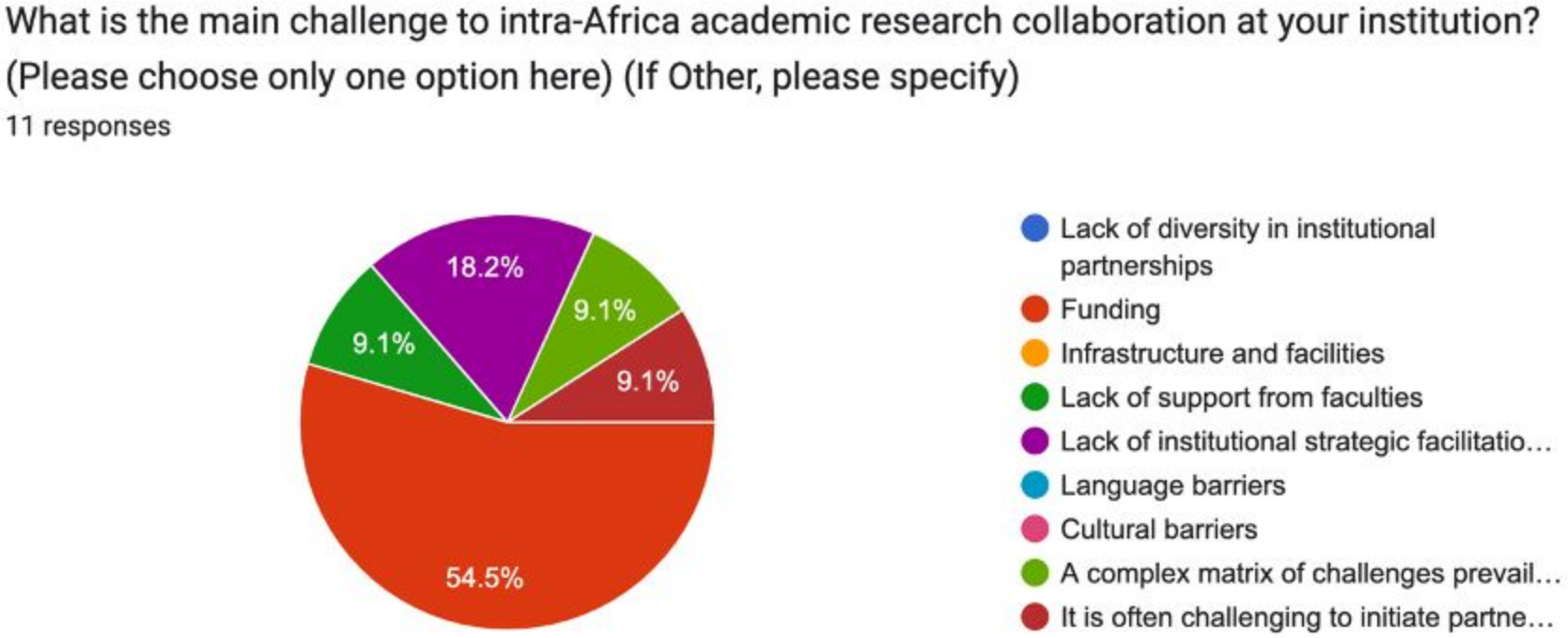


Figure 4.14: Main Challenges Reported by South African Research-Intensive International/Research Directors

Source: Researcher's own Construction (2022)

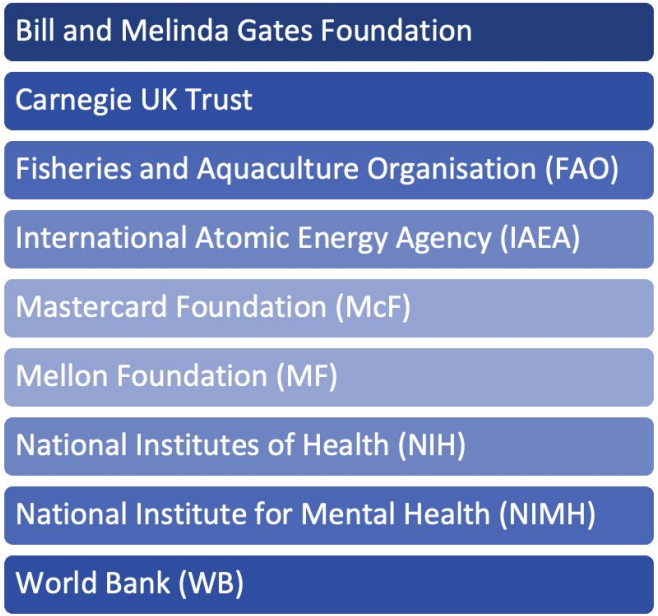


Figure 4.16: Funding Organisations Funding Research Collaboration Occurring in Africa
Source: Researcher's own construction (2022)

Consideration of policy, frameworks and guidelines

- There are macro impacting instruments that aim to guide the transformation of higher education to address the historical inequalities
- These range from institutional strategies, national objectives, regional frameworks and global agendas.
  - SDG'S
  - AFRICA AGENDA 2063
  - SADC PROTOCOL
  - NATIONAL DEVELOPMENT PLAN
- The need for research collaboration to address local and common regional or global challenges

Qualitative data

The UN SDG's as an influencing instrument was mentioned specifically by seven of the research leaders interviewed as part of this study, while three have made reference to the Africa Agenda, 2063.

The rest answered that they did not consult, or consider, regional or global political or developmental instruments.

However, when asked the question, research leaders were motivated to consider the ways in which the research themes and the nature of the collaboration may be contributing to addressing the UN SDGs at a regional and global level.

> *"I am aware of the SDGs and I have attended many conferences that address the topic that has assisted me in identifying goals that my field of research contributes to such as water and energy. What I have not succeeded in is addressing the SDGs in the research proposal"* (UGNRL1).

> "*Passing references have been made to the SDGs to portray a particular argument"* (URRL1). However, URRL1 argues that the team was not inspired by the SDGs further than referring to them in the research reports and articles in order to show how the research is contributing to the objectives.

Concluding thoughts: Macro-level factors impacting IRC

Macro-level factors have a major impact on South African higher education institutions and their ability to engage in international research collaboration.

- Historical inequalities and policies; geopolitics; coloniality; infrastructure; funding…

Past trends largely continue to be seen in current IRC trends.

Institutional, national, regional, and global structural dynamics impact research capacity, infrastructure, resources and agendas.

Policy documents exist and they often say the right things, but there is lack of implementation and alignment by some institutions.

References

Department of Higher Education and Training. (2023). *Statistics on post-school education and training in South Africa 2021*. https://www.dhet.gov.za/DHET%20Statistics%20Publication/Statistics%20on%20Post-School%20Education%20and%20Training%20in%20South%20Africa%202021.pdf

Heleta, S. & Jithoo, D. (2023). International research collaboration between South Africa and rest of the world: An analysis of 2012–2021 trends. *Transformation in Higher Education*, 8(0), a246. https://doi.org/10.4102/the.v8i0.246

Luukkonen, T., Persson, O. & Sivertsen, G. (1992). Understanding patterns of international scientific collaboration. *Science, Technology, & Human Values*, 17(1), 101-126.

Schubert, T. & Sooryamoorthy, R. (2010). Can the centre–periphery model explain patterns of international scientific collaboration among threshold and industrialised countries? The case of South Africa and Germany. *Scientometrics*, 83, 181-203.

Sooryamoorthy, R. (2009). Collaboration and publication: How collaborative are scientists in South Africa? Scientometrics, 80(2): 421-441. https://doi.org/10.1007/s11192-008-2074-z