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Editorial Team

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Editorial: Academic Collaboration in Africa, Asia and Latin America in the Post-COVID World

Damtew Teferra

Introduction

The Higher Education Forum on Africa, Asia and Latin America (HEFAALA) was launched in 2016 to promote dialogue in higher education between these three major world regions in mutually constructive engagements. The forum, which is an initiative of the International Network for Higher Education in Africa (INHEA), is intended to foster dialogue, research and communication in higher education in recognition of the enormous common challenges as well as growing opportunities in the three regions and beyond.

HEFAALA has successfully organised two international symposia since its establishment: the first in Durban, South Africa in 2016 under the theme "Continental Realities, International Imperatives" and the second in Addis Ababa, Ethiopia in 2019, under the theme "Internationalization of Higher Education in the New Era of World (Dis)Order".

These themes were well featured, with a strong focus on the three continents, especially Africa, in multiple publications in scholarly periodicals such as the *International Journal of African Higher Education* (*IJAHE*) and other professional media, such as *University World News* which published a special issue through an arrangement with the INHEA. For instance, the debate that started at the symposium on the definition of internationalisation has triggered numerous articles in *University World News,* in the process raising the profile of the initiative (and the theme), but more so questioning the relevance of the discourse in the Global South.

As an output of the Second HEFAALA Symposium a special issue of the *IJAHE* was published, with a number of prominent higher education experts contributing articles. As a spinoff of the symposium a book chapter by this author entitled "From 'Dumb' Decolonization to 'Smart' Internationalization: A Requisite Transition" was published in *Intelligent Internationalization: The Shape of Things to Come,* edited by Kara Godwin and Hans de Wit and published by Brill Publishers. The symposium also

contributed to the realisation of an edited book *The Bloomsbury Handbook of the Internationalization of Higher Education in the Global South* by Thondhlana Juliet, Garwe Evelyn C., Hans de Wit, Jocelyne Gacel-Avila, Futao Huang and Wondwosen Tamrat (2021), published by Bloomsbury.

The Third Symposium

In the last two symposia, many lessons were learned; extensive knowledge and information were generated; and formal and informal networking opportunities were made possible. The symposia created a high-profile platform for scholars, researchers, academics, post-graduate students, and officials from the Global South to deliberate on key issues of relevance and significance from their national and continental context as well as discourse vantage points. By incorporating Northern players in the symposia, we created a conducive and constructive environment of enriched dialogue and passionate debates that inform policy and shape discourse.

Building on the experience in the last two symposia, the Third HEFAALA Symposium was jointly organised by the INHEA, the publisher of the *IJAHE* based at the University of KwaZulu-Natal (South Africa), and Saint Mary's University, one of the leading private higher education institutions in Ethiopia. It was organised in collaboration with the African Union Commission, the Association of African Universities, the Ethiopian Ministry of Education and the Center for International Higher Education, Boston College in partnership with the Carnegie Corporation of New York and the Mastercard Foundation.

The symposium took place on 27 and 28 April 2022 in Addis Ababa, Ethiopia, under the theme "Academic Collaboration in Africa, Asia and Latin America in the Post-COVID World". It was integrated with the 20th International Conference on Private Higher Education in Africa under the theme "Embracing New Realities and Paradigms: Africa's Higher Education Response" and Masterclass workshops under the theme "Building Leadership of Young Academics: The Power of Academic Collaboration". While the Symposium and Conference run in hybrid mode, the Masterclasses run in person.

The events benefited from three key note addresses titled Academic Collaboration: Emerging Issues and Looming Challenges by Professor N.V. Varghese, Vice-Chancellor, National Institute of Educational Planning

and Administration, India; Higher Education Partnerships in Response to Addressing Development Challenges in Africa by Dr Teshome Yizengaw, Associate Vice-President, Indiana University and former State Minister of Education, Ethiopia; and Academic Collaboration in the Post-COVID Era: Challenges and Opportunities by Professor Goolam Mohamedbhai, former Vice-Chancellor of the University of Mauritius and former President of the International Association of Universities.

HEFAALA III had four panels under the following sub-themes: Academic Collaboration: Imperatives and Modalities; Impact and Relevance of Academic/Research Collaboration; Mobility and Intellectual Diaspora; and Challenges and Opportunities of Academic Collaboration. These featured some of the leading authorities in these fields drawn largely from Africa, Asia and Latin America, as well as Australia, Canada, Europe and the United States.

The robust Masterclass Workshops from 25 to 29 April 2022 under the theme "Building Leadership of Young Academics: The Power of Academic Collaboration" were effectively embedded in the conference and the symposium. This Masterclass, which was made possible by a partnership with the Mastercard Foundation, deliberated on three subthemes: Knocking at the Gates of Knowledge Gate Keepers: The Significance of Collaboration; Co-Constructing Knowledge: The Power of Collaboration; and Overcoming Marginality through Academic Collaboration.

The symposium was once again designed as a series of round-table panel discussions where a number of key questions guided the respective themes with anticipated outcomes. This was systematically designed to ensure in-depth conversation and critical analysis to contribute to the dialogue, and shape emerging discourses and phenomena in the service of the respective stakeholders in higher education and beyond.

Objectives and questions

The overall theme of the symposium, "Academic Collaboration in Africa, Asia and Latin America in the Post-COVID World" had the following specific objectives:

1. explore, identify and investigate the current state, nature, modalities and practices of academic collaboration between and among institutions in Africa, Asia, Latin America, and the rest of the world;

2. analyse and critique existing models and emerging trends in academic collaboration and academic mobility between and among institutions in Africa, Asia, Latin America, and the rest of the world in the post-COVID era;
3. identify and advance progressive models and paradigms, best practices, systems, and frameworks, such as the Accra Agenda for Action (2008) and Paris Declaration on Aid Effectiveness (2015), in all facets of academic collaboration at both the system and operational levels to promote quality and excellence in higher education in Africa and beyond; and
4. explore resources and networks to enhance academic collaboration between and among Africa, Asia, Latin America, and the rest of the world.

The following critical questions were framed to achieve these objectives:

1. How and to what extent is the COVID-19 pandemic affecting the typology and productivity of international academic collaboration in Africa and elsewhere in the Global South?
2. How could academic collaborations, often cited as exhibiting unequal relationships, be transformed to foster more equitable partnerships through virtual and other modalities?
3. What recommendations can be made to enhance South-South collaboration in response to COVID-19 through the emergence of new forms of educational delivery and research?

The team

An advisory committee of nine eminent scholars drawn from institutions in the three regions and INHEA's key partner, the Center for International Higher Education, Boston College, USA was established and tasked with:

1. framing the theme of the symposium and identifying the research topics, including drafting the open call for proposals;
2. recommending, commissioning and peer reviewing the papers;
3. developing a final programme;
4. widely announcing the symposium;
5. presenting, moderating and chairing sessions;
6. reviewing the final papers for publication; and

7. reviewing, providing feedback and recommending a way forward, including directions on subsequent HEFAALA events.

These scholars and their institutional affiliations include:

1. Professor Philip G. Altbach, Honorary Member, Founding Director, Center for International Higher Education (CIHE), Boston College, USA;
2. Associate Professor Gerardo Blanco, Member, CIHE, Boston College, USA;
3. Mrs Claudia Frittelli, Member, Carnegie Corporation of New York, USA;
4. Professor Marcelo Knobel, Member, President of the State University of Campinas, Brazil;
5. Associate Professor Wondwosen Tamrat, Member, Vice-Chancellor, St Mary's University, Ethiopia;
6. Professor N. V. Varghese, Member, Vice-Chancellor, National Institute of Education Planning and Administration, India;
7. Professor H. Wei, Member, Dean, Peking University, China;
8. Professor Hans de Wit, Co-Chair, Director, CIHE, Boston College, USA; and
9. Professor Damtew Teferra, Chair, Founder and Convener, Higher Education Forum on Africa, Asia and Latin America, University of KwaZulu-Natal, South Africa.

Following the identification of the topics and their potential contributors, papers were commissioned, thanks to the resources made possible by the Carnegie Corporation of New York.

The articles

The Global North remains the epicentre of academic collaborations in the world. Countries in the Global South, typically the so-called developing countries, have mainly collaborated vertically rather than (and including) horizontally. The Global South remains at the margins of this phenomenon of research and knowledge brokerage.

This volume of the *IJAHE* contains eight articles by experts drawn from the three continents and beyond. Most are jointly authored by contributors from the regions for a comparative and enriched perspective.

In "Imperatives of Academic Collaboration in Africa, Asia and Latin America", Damtew Teferra, Morshidi Sirat and Pablo Beneitone posit that academic collaboration is as old as academia itself and that it has become fashionable—and even imperative—for institutions and individuals in their systematic drive to pursue excellence and distinction. They add that over the years, institutional status and ranking have grown in importance and that these are increasingly gauged by the extent and magnitude of academic and research collaboration that institutions develop and sustain. Teferra, Sirat and Beneitone observe that academic collaboration has witnessed massive growth as interest in tackling major global issues and challenges has taken centre stage. Accordingly, they argue, there is robust understanding and hence practice of undertaking massive multi-national, multi-institutional and multi-disciplinary collaborative projects. The authors go on to state that the rationales for and imperatives of academic collaboration and partnerships of countries and institutions, and for that matter continents, vary in their profile and intensity. They conclude that the imperative, and hence trend, of collaboration between and among the three regions vary as they are dictated and constrained by resources, objectives, history and languages. Finally, they posit that a new era of partnership and sense of collaboration has dawned in the post-COVID-19 world and that this promising trend and spirit will continue in a more equitable and sustained manner.

In "Academic Collaboration in Africa and Asia: Current Status, Challenges, and Emerging Trends and Strategies", Yamina El Kirat El Allame, Hajar Anas, Oumaima Elghazali, Tibelius Amutuhaire, Bie Dunrong, Huang Yifan, and Yu Jingran and Ma Jie note that, South-South cooperation has garnered much attention in recent times among multiple stakeholders including policymakers, institutions and academics. They hold that academic collaboration in teaching, learning and research across borders gathered impetus during the COVID-19 pandemic. They also assert that the pandemic emphasised the need for institutions to consolidate their efforts in collaboration and internationalisation at home. This, they say, could be a key strategy to boost the capacity of institutions in the South to implement internationalisation and confront global threats such as the pandemic. Based on the experience of the pandemic, the authors hold that both the Global North and the Global South have recognised the unique and considerable opportunities that

academic collaboration represents for tertiary education. They conclude by highlighting the incompatible agendas and priorities and the unequal power dynamics between the 'powerful' Northern partners and those in the South.

Writing on "Global South Research Collaboration: A Comparative Perspective", Abdoulaye Gueye, Edward Choi, Carolina Guzmán and Gustavo Gregorutti were guided by three key issues: identifying the trends in academic collaboration in the Global South; whether scholars from a colonised past were inclined to collaborate with counterparts based in the Global North; and if efforts to promote South-South academic collaboration resulted in increased co-authorship between researchers based in different regions of the Global South. They posit that, in their quest for academic partnership, scholars in the Global South look to their own country or the US or Europe, with occasional reach in another country in the Global South. The authors contend that an analysis of the weaknesses of these transcontinental and intracontinental collaborations arguably needs to take into consideration the cultural distance effect mediated by numerous actors and factors such as history, politics and economics. They note that many scholars in Latin America, sub-Saharan Africa, and East Asia may not possess the mainstream social capital required or desired to facilitate research collaborations with foreign counterparts, with an orientation to 'collaboration localism' to research. The authors conclude that the current publication dynamics of Global South scholars, as a proxy measure of collaboration, do not reflect the political discourse of South-South collaboration.

Oanda, Jon and Blanco's article on "Mobility for Academic Collaboration Post-COVID-19: Rebuilding Towards More Equitable Networks" frames mobility for academic collaboration post-COVID-19 as a series of paradoxes. The first is that while the pandemic provides the perfect example of a problem for which international academic collaboration is absolutely necessary, it imposes disruptive and extremely complex conditions. The second paradox, they argue, is that research activity in all fields of study resumed, increasing input and international collaboration without physical mobility. A third paradox is that the pandemic exacerbated geopolitical tensions and as a result academics seeking to collaborate across borders needed to deal with a complicated set of regulations. The authors hold that higher education internationalisation—in the context

of academic collaboration—at the present historical juncture requires the ability to creatively interrupt vicious cycles. They anticipate increased inequality between research communities, decreasing availability of research funding, and more pressure to demonstrate results, with a risk of focusing on short-term and more transactional partnerships, rather than deeper, more sustained collaboration. The authors further posit that the future of research collaboration may involve not only new modalities for mobility, but in many cases the ability to work together under deteriorating conditions, as well as more academic mobility from economically struggling areas where massive growth is taking place and the middle class is growing. They observe that the normalisation of virtual collaboration for research could open the door for researchers from 'marginal' countries, who may not have been major players in international collaboration prior to the outbreak of the pandemic. They conclude that academic mobility for research cooperation - assisted by technology - will likely be semi-permanent or permanent with deeper imbalances remaining and call for thoughtful engagement with these new modalities to avoid replicating the old barriers in the emerging space.

In "Academic cooperation between Africa, Asia and Latin America: The place of diasporas", Ayenachew A. Woldegiyorgis, Lucas Luchilo and Thanh Pham provide an extensive comparative perspective on the formation and genesis of diaspora communities on the three continents. They trace the growth and decline of these communities along with their triggers and make the case that the intellectual diaspora play a marginal role in inter-continental partnerships. The authors note that the combination of the global distribution of knowledge production and incentives for the development of academic careers—dominated by those in the Global North—conspire against the possibility of building strong bonds between academic diasporas in the countries on the three continents. For instance, they contend that the characteristics of Asian migration to Latin America and of Latin American migration to Asia do not facilitate the creation of academic diasporas. History, language, physical distance, funding (for joint cooperative activities) and (national) academic maturity are posited as paramount to the manifestation of the phenomenon of the academic diaspora.

Drawing on the OECD's definition of relevance as the "extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies", Wondwosen Tamrat's article, "The Notion of Relevance in Academic Collaboration: From setting objectives to targeting development goals" stresses the need to understand one's own context as a critical component of any cooperative scheme. In highlighting the essence of relevance, he draws on a '10/90 gap' in health research where less than 10% of global spending is devoted to 90% of the world's health problems that are rampant in the Global South. Drawing on the argument that the needs and priorities of the South should be the basis for North-South partnerships, he intimates the fundamental danger that underlies a supply-oriented identification of the needs of the South under the influence of the driving agenda and central interests of the North. To counteract current trends and address the interests of both blocs, different modalities that privilege mutual interest, and hence relevance, have been articulated, including tendering and consensus. That said, basic considerations of relevance, as an important aspect of partnership and collaboration schemes, have been incorporated into the practice of some of the major development partners, although the power dynamics that inherently exist tend to unsettle the ecosystem. Tamrat notes that the challenges facing sustainable academic partnerships include legal, financial, academic, institutional and cultural issues. He concludes that equitable and collaborative agenda setting, design, decision-making, and consideration of developmental goals, as the end product of a collaboration scheme, can be used to address issues of relevance.

Writing on "Financing and Resourcing International Collaboration in African Higher Education: Beyond Negotiated Power between the Global North and Global South", Gift Masaiti and Edward Mboyonga present an extensive account of funding higher education in the context of academic collaboration in Africa. They cite a UNESCO report that notes that Africa accounts for just 1.01% of global research and development expenditure, 2.5% of global researchers and 3.5% of scholarly publications, compared to 45.7%, 44.5% and 48% for the Asian region, respectively. Even the most advanced country in Africa, South Africa, allocates only 0.83% of its GDP, which is below the recommended one per cent. They observe that collaboration in higher education between countries in Africa and the Global North is manifested through joint research, student and staff mobility, teaching, and funding; and organise this phenomenon into three categories: principal programme countries, colonial legacy and self-

selection. Masaiti and Mboyonga note that the politics of power and control that characterises international collaborations usually privilege partners in the Global North who are typically the sources of funding. Furthermore, despite the existence of several collaborative funding initiatives on the continent, studies show that minimal research output is recorded through regional collaborative research among sub-Saharan African countries. The authors argue that the dialogue on funding and collaboration should go beyond the hitherto negotiated power dynamics between the Global North and Global South as this has often exhibited unequal financial muscle. They recommend that countries and institutions formulate and adopt policies to prevent the unfair practices which typically characterise the landscape of partnership finance.

N. V. Varghese's article on "Academic Collaborations in Asia: With Special Emphasis on India" analyses academic collaboration efforts by universities and higher education institutions in Asian countries, particularly India. He notes that while the Asian countries have by and large been westward looking, with 'vertical orientation' in their academic orientation and collaborations, many are now establishing collaboration with countries within the same region ('horizontal orientation'). However, a major share of the scientific papers published in the 'North' are co-authored while the share is relatively less in the Asian region where China and India stand at 23% and 18.9%, respectively (UNESCO, 2021). Varghese also observes that the orientation of R&D activities has shifted from the traditional focus on discipline-based basic research to trans-disciplinary approaches which, he states, has promoted collaboration between eclectic disciplines, universities and scholars from across the world. He goes on to assert that research universities and world class universities have become 'aspirational ideas', with global ranking a yardstick for measuring research and knowledge production, and concludes that these developments augmented by ICT fostered the rapid expansion of cross-border research collaboration. Varghese envisages international academic collaborations of Asian countries as being in three distinct but related stages: a) collaborations for national capacity development; b) collaborations as part of the globalisation process; and c) collaborations to enhance academic credibility and the global ranking of national institutions. He maintains that these collaborations are promoted through four different channels: through public institutions established by national governments and

programmes initiated by the public authorities; various networks and associations; R&D institutions; and diaspora.

Conclusion

This special issue is an outcome of the Third HEFAALA Symposium, with contributions and rich analysis from a number of experts from Africa, Asia, Latin America and beyond. In their totality, the articles are a collective effort of researchers and higher education leaders who explore issues from a host of vantage points including, but not limited to, funding, development partners, and academic diaspora.

The symposium provided substantial opportunities for structured dialogue between participants. Discussion sessions responded to papers but also focused on advancing the possibilities of academic collaboration and networking within and across the three regions, particularly considering the challenges posed by COVID-19.

Countries in the North American region have the highest researcher density per million population standing at 4 432 followed by those in the South Asian region at 263 and the lowest in the African region at 124 (UNESCO, 2021). It is important to note that ultimately these densities typically determine the extent of collaboration, with implications for research productivity, outcome, impact, citation, and networking, among others.

There is near unanimity—and a renewed call—for South-South collaboration which is often sustained through the intervention of sources—and forces—in the North. Much has been said about the need to change the paradigm, often without commensurate follow up action. Thus, the need for more progressive discourses on academic collaboration in the three regions cannot be overemphasised.

The 'polygamous' nature of collaborations, particularly in the context of Africa (Teferra, 2022), may, however, require deeper and more extensive analysis of this mode of research and academic collaboration in the interests of the global community, particularly those in the Global South. HEFAALA will continue to serve as a forum to advance this dialogue among academics, scholars, professionals and practitioners interested in and concerned with higher education development in these regions and beyond.

Acknowledgements
We wish to acknowledge, and extend our sincere gratitude to the administrative team for their help in organising the events and supporting the advisory committee technically and logistically. They include Dr Misganaw Solomon, Deputy President, St. Mary's University, Ethiopia; Dr Rebecca Schendel, Associate Director, CIHE, Boston College, USA; and Dr Ayenachew Woldegiyorgis, Fellow at the CIHE, Boston College, USA.

Professor Damtew Teferra
Editor-in-chief
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The Imperatives of Academic Collaboration in Africa, Asia and Latin America

Damtew Teferra, Morshidi Sirat and Pablo Beneitone

Abstract
A multitude of intentions drives institutions to engage in academic collaborations, mainly dictated by necessity. The imperatives of academic collaboration are many and varied and include generating resources, developing academic capacity, exchanging experiences, and enhancing the institutional profile. Institutions also engage in collaboration to pursue mega initiatives (such as human genome projects) and tackle major global challenges (like climate change and diseases such as COVID-19). Such endeavours mainly take place within the framework of North-North and, to certain extent, North-South collaboration. South-South collaboration has been less evident, although this trend appears to be changing steadily with growing interest, focus and drive in these regions. For decades, academic collaboration has been touted as a positive force in knowledge creation and capacity building, particularly in the South. However, this conception has largely been framed in the context and perspective of the North. Given growing calls for a shift from traditional North-South collaborations, this article explores the imperatives of academic collaboration in the context of South-South partnerships and examines the critical factors that shape such collaboration in Africa, Asia and Latin America. It explores the intention, nature, scope and modalities of academic collaborations in the context of academic exchange, joint research/projects, joint programmes, capacity building and other relevant engagements on these continents in the post-COVID-19 era.

Résumé
Une multitude d'intentions poussent les établissements à s'engager dans des collaborations académiques, principalement sous l'effet de la nécessité. Les impératifs de la collaboration universitaire sont nombreux

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et variés et comprennent la génération de ressources, le développement des capacités universitaires, l'échange d'expériences et l'amélioration du profil institutionnel. Les institutions s'engagent également dans une collaboration pour poursuivre des méga-initiatives (telles que des projets sur le génome humain) et relever des défis mondiaux majeurs (comme le changement climatique et des maladies telles que la COVID-19). Ces efforts s'inscrivent principalement dans le cadre de la collaboration Nord-Nord et, dans une certaine mesure, Nord-Sud. La collaboration Sud-Sud a été moins évidente, bien que cette tendance semble changer régulièrement avec un intérêt, une concentration et un dynamisme croissants dans ces régions. Pendant des décennies, la collaboration universitaire a été présentée comme une force positive dans la création de connaissances et le renforcement des capacités, en particulier dans le Sud. Cependant, cette conception a été largement formulée dans le contexte et la perspective du Nord. Compte tenu des appels croissants à un changement des collaborations Nord-Sud traditionnelles, cet article explore les impératifs de la collaboration universitaire dans le contexte des partenariats Sud-Sud et examine les facteurs critiques qui façonnent une telle collaboration en Afrique, en Asie et en Amérique latine. Il explore l'intention, la nature, la portée et les modalités des collaborations universitaires dans le contexte des échanges universitaires, des recherches/projets conjoints, des programmes conjoints, du renforcement des capacités et d'autres engagements pertinents sur ces continents dans l'ère post-COVID-19.

Introduction

Academic collaboration is as old as academia itself. It has intensified across the world in the past two decades with the ushering in of what is known as a 'knowledge society' that rides on a knowledge economy. Kweik (2018) holds that international academic, particularly research, collaboration has captivated the imagination of the academic profession and informed governments' research policy across the world.

Academic collaboration has become fashionable—and even imperative—for institutions and individuals in their systematic drive to pursue excellence and distinction. Institutional status and ranking—which have grown in importance—are increasingly gauged by the extent and magnitude of academic and research collaboration that institutions develop and sustain.

Academic collaboration has witnessed massive growth as interest in tackling global issues and challenges has taken centre stage. There is a robust understanding and hence practice of massive multi-national, multi-institutional collaborative projects such as the human genome project and the Hadron collider, and efforts to confront mega challenges such as climate change and environmental degradation that are often unencumbered by national borders and artificial boundaries.

In this article we use the term academic cooperation somewhat broadly to encompass typical academic engagements and tasks such as teaching and learning, research, publication/communication and other academic exercises.

Rationale for and imperatives of academic collaboration

The rationale for and imperatives of academic collaboration and partnerships of countries and institutions, and for that matter continents, vary in their profile and intensity. This section examines the multiple manifestations of these tenets.

Africa

Higher education in Africa has a long history that dates back a thousand years. While Africa can claim an ancient academic tradition, its traditional centres of higher learning all but disappeared or were destroyed by colonialism (Altbach and Selvaratnam, 1989). The most important colonial powers in Africa, Britain and France, had a lasting impact not only in terms of the organisation of academe and continuing links to the metropole, but on the language of instruction and communication (Teferra and Altbach, 2003). This historical legacy is instrumental in understanding the partnership and collaboration dynamics in contemporary African higher education.

Collaborations are paramount in advancing higher education and revitalising knowledge systems in Africa, with some 20 million students currently enrolled in this sector (Teferra, 2017). A multitude of factors drives interest in collaborations and partnerships as the sector is growing fast and its needs—and challenges—are mounting.

Collaborations require vital financial resources, academic and research competence, and enhanced intellectual capital and confidence. They help to address the academic isolation and marginalisation that are typical in

the Global South. Academic and research collaborations with researchers and academics in the Global North often generate publications in high-impact journals, making research institutions and their personnel more visible. This can lead to more grants, research and publications, faster promotion and more invitations to major conferences and meetings (Teferra, 2009). However, the implications of heavy reliance on resources and discourses generated or dominated by external entities have been the subject of numerous regional and global dialogues, contestations, and resolutions (Teferra, 2013).

African higher education depends heavily on external resources—both in monetary terms and its discourse. Due to critical funding shortages, for the most part, academic collaborations on the continent are driven by the desire for resource generation. The low level of research productivity in Africa—which accounts for 13.5% of the global population but less than 1% of global research output (Fonn et al., 2018)—is attributed to a systemic and critical scarcity of funds for research and academic cooperation.

Typically, resources to support African research and scholarship originate in rich industrialised countries through bilateral and multilateral arrangements and (to a lesser extent) foundations in the United States (US). It can thus be argued that one of the main driving forces for academic collaboration in Africa is soliciting funding from external resources that typically requires partnerships between institutions in Africa and the Global North.

The discourse-shaping dialogue regarding higher education's development is still dominated by external forces, either through their own internal think-tanks or by alliances with powerful players that influence local institutions to adopt a favoured policy track. For better or for worse, external forces will remain one of, if not the main, powerful forces of internationalisation on the continent through their financial and technical muscle, their backing of particular policies, and their promotion of the terms on which discourse can occur (Teferra, 2008).

A further key imperative of African interest in academic cooperation falls under what is typically referred to as capacity building. African academic institutions face critical shortages of well-trained and qualified academics with PhDs; and the massive expansion of the sector has exacerbated the situation. Even in a typical flagship university in Africa, PhD holders are in the minority although countries such as Kenya and Nigeria are enacting legislation that restricts academic staff employment to those with PhDs.

As a result, academic institutions in Africa often seek to train their academic staff through international, and to some extent regional, academic partnerships. When such training is packaged in academic cooperation supported within a framework of bilateral and/or multilateral arrangements, it often extends to joint research, and publication. Therefore, African academic institutions draw on academic cooperation to train their academics, typically to PhD level, sealed by external resources.

Increasingly, however the destination of African students seeking postgraduate studies, particularly PhDs, has diversified through their own and government resources. While the US and Europe have been important markets for students from across the world, Africa, China and India are emerging as the new frontiers of foreign study for African students with considerable scholarship opportunities offered by some. Russia and the states of the former USSR are also attracting students from the continent after losing their market share following the end of the Cold War. While such government-sanctioned and individually-driven endeavours might not directly represent academic collaboration, they plant the seeds for future engagements and are a nucleus for soft power deployment.

A typical African university maintains a long list of partnerships mainly, if not exclusively, with institutions in the Global North. These are usually sealed by resources deployed from the Global North. For instance, only 20% of the University of Nigeria's more than 70 collaborations (broadly considered to range from students' study destinations to research) are within the global South, with most of them in Africa (https://www.unn.edu.ng/collaborations/). A study on partnerships in Kenyan universities found that more than 60% were unaware of any partnerships formed by their institutions and only three of the eight institutions had such a policy (Kombo and Mwangi, 2018).

In Ghana, the three most research productive organisations were found to be highly dependent on collaboration to sustain their levels of productivity. Indeed, in 2006 and 2013, respectively, 98% and 92% of research articles by government agencies and public universities would not have materialised without collaboration. Moreover, all the articles emanating from the Ghana Atomic Energy Commission and the Ghana Health Service during this period can be attributed to research

collaborations. About 97% of the articles from Kwame Nkrumah University of Science and Technology were as a result of collaboration, compared to 91% for the University of Ghana (Owusu-Nimo and Boshoff, 2017).

Scientific research productivity has been closely linked to high levels of collaboration (Lee and Bozeman, 2005; de Solla Price and Beaver, 1966 in Lewis, Ross and Holden, 2012) and consequently, many developed countries seek to stimulate collaboration through a mix of research grants and grant criteria, a luxury African institutions generally cannot afford.

Africa successfully transitioned from the 'Hopeless Continent' in 2000 to 'Africa Rising – The hopeful continent' in 2011, graduating to 'Aspiring Africa – The world's fastest-growing continent' in 2013, according to *The Economist*, one of the most influential magazines in the world. Since then, the continent has witnessed a plethora of high-level meetings including Africa-Canada; China-Africa; Africa-France; Germany-Africa; India-Africa; Japan-Africa; Korea-Africa, Russia-Africa and Turkey-Africa summits, conferences and compacts (Teferra, 2019). Similar patterns are evident at a multilateral level including the European Union (EU)-African Union (AU) Summit in February 2022. These conventions invariably narrate the multiple areas of partnerships and collaborations, including higher education.

In analysing the declarations of the different summits and conferences, their 'linearity'—i.e., engagements narrowly conceived as a one-to-one rendezvous—becomes starkly evident. This linear pattern has implications for the 'polygamous' partner as it strives to accommodate the multiple and typically discrete partnership and collaboration schemes that tend to lack coherence and compete with one another. Ultimately, the burden of managing these partnership schemes lies with African institutions who often lack the human and technical resources and support to do so (Teferra, 2022).

While it is true that the initiatives of multiple external players increasingly employ consultative approaches to align policies and jointly run programmes and activities, this largely depends on the good will of the respective entities. For instance, in Ethiopia the Development Partners Group (DPG) was established in 2001, initially as the Development Assistance Group (DAG), and comprises 30 bilateral and multilateral partners. It "was established to foster and catalyse policy dialogue and

to coordinate and harmonize development partners' support for the Government of Ethiopia's preparation, implementation, monitoring and evaluation of the national development plan and the SDGs" (UNDP).

The 2005 Paris Declaration on Aid Effectiveness and the 2008 Accra Agenda for Action which emerged from two key conventions are founded on five core principles, born out of decades of experience of what works for development, and what doesn't. These have gained support across the development community, changing development cooperation paradigms, presumably for the better. The principles include ownership, alignment, harmonisation, results-focused and mutual accountability (Teferra, 2019). The 2015 Addis Ababa Action Agenda also calls for "providers of ODA [overseas development assistance] and South-South cooperation to further increase the effectiveness of their development cooperation and to share knowledge about their respective efforts". Notably, it anticipates South-South cooperation through the interventions of the Global North (ODA).

Fellesson and Mählck's (2017) study on 'Modes and Premises of Transnational Mobility and Collaboration at the Intersection of International Development Aid and Global Science Regimes – The Case of Mozambique and Tanzania', which analysed North-South partnership dynamics in the context of Swedish International Development Agency support, observed the frequently unclear and inferior role of participation in international collaboration and "token presence" of Africans in Global North research projects. Access to and knowledge of funding opportunities became an early determinant of the 'pecking order' of the partners involved in the collaboration. The authors concluded that African researchers' lack of insight and access to funding opportunities in the Global North significantly reduced their ability to influence and shape collaborative research projects.

The lofty conventions and summits, etc. and the frequency with which they take place underscore the need for Africa to carve its own path as it engages with a multitude of new as well as historical partners in light of its changing status.

It can be concluded that the primary reason for African universities to seek partnerships lies in their quest for financial, material, infrastructural, and human resources. Therefore, the drive for collaboration—a key aspect of internationalisation—on the continent is fraught with scarcity and driven by coercion (Teferra, 2020). The imperatives of equitable

collaboration may only become a reality if the need for compliance and interest in genuine co-creation take deeper root.

The resource-constrained environment has meant that African institutions are least likely to collaborate with other institutions in a similar situation which happen to be in the Global South of Asia and Latin America.

Asia

Asia is a highly diverse geographical entity with various cultural, religious, historical and colonial legacies, which shape the foundations of higher education in its different countries. The "Asian 21st Century" (Mahbubani, 2021) focussing on the dominant role of China and India in the global economy, Khanna's (2019) "The Future is Asian", which underpinned the role of the wider Asian region and Nayyar's (2019) Asia as a "global economic powerhouse" could be regarded as the philosophy and ideology that have pushed and continue to push Asia's dramatic transformation.

In the context of this transformation, numerous forces have determined and continue to determine and shape the character of contemporary higher education systems and patterns of academic collaborations in various regions in Asia. They include existing formal and informal traditional learning arrangements, past colonial domination and influences and various programmes undertaken by international governmental organisations and development partners in collaboration with national governments.

Asia is generally categorised as East Asia, Southeast Asia, South Asia, Central Asia, and West Asia. While an overview of the patterns of academic collaboration can be easily discerned and presented from the perspective of inter-regional and particularly South-South collaborations, based on the Scopus database, important salient features have characterised Asia's collaboration with Latin America and Africa. In order to tease out these features, the narratives on intra-regional collaborations within Asia, and those that are primarily inter-regional in character with Latin America and Africa need to be examined at three levels, namely, (1) between Asia, Africa and Latin America, (2) intra-regional or South-South collaborations among countries/groups of countries within Asia, and (3) intra-regional or North-South academic collaborations such as between the more developed higher education systems in East Asia and Southeast Asian countries that

display the characteristics of developing higher education systems. Intra-regional collaborations involving East Asia which is considered as North-South collaboration are well documented (ADB, 2012; Postiglione, 2020).

At this juncture, it is important to understand the development of higher education systems in Asian countries, which will facilitate understanding of the need for cross-border and cross-continent academic collaborations. Most politically independent, modernised countries have adopted hybrid higher education systems which reflect the interplay between cross-fertilisation with cultural/religious and political systems, the reality and impact of globalisation and the internationalisation of higher education. Arguably, the "Western Impact" (Altbach, 1998), and the "Traditional Context and Western Contact" (Hawkins, 2013) aptly described the emergence and subsequent development of hybrid systems in Asia. For instance, in the case of East Asia, the hybrid higher education system that emerged reflected the interface of the teachings of Confucius and Buddhist traditions with Anglo-Saxon/Christian influences; the latter being a consequence of political domination, colonisation and integration in the global economy (Chan et al., 2017).

Similarly, in South and Southeast Asia, the colonial imprints in the current higher education systems have stood the test of time. A significant feature of Southeast Asia in particular is that many Western countries were involved in colonisation. Furthermore, according to Downing (2011), Chan et al. (2017), and Molly et al. (2017), as a result of the internationalisation of higher education and the currency of discourses such as world class universities, global university rankings, and neoliberalism in higher education, the influence of the interplay of the North American, European and British systems is more discernible in the current higher education systems of several countries in these parts of Asia.

In West Asia, Anglo-Saxon/UK-US influences are now interfaced with the higher education systems which are traditionally rooted in Islam. For example, Gray et al. (2016) note that the establishment of an education hub in the Gulf region pitted the traditional education system against the systems developed for international campuses and the provision of transnational education modelled on the West. With university provision taking a business outlook, the growth of the universities in the Gulf has, according to Gray et al. (2016), further altered the traditional role of the university in the region, with course offerings more closely aligned with market demand.

Central Asia is unique in that the organisation and governance of its higher education space in 1991 was similar to that of the other former republics of the now collapsed Soviet Union (Putz, 2020). Prior to the collapse, all republics of Central Asia followed the centralised Soviet system (Clark, 2015). This influence is gradually diminishing and in many of these former republics, strategic policy directions favour the adoption of the European/Bologna system. For instance, in May 2015, it was reported that, "47 ministers responsible for higher education meeting in Yerevan, the capital of Armenia discussed the influence – and indeed membership – of the Bologna process in many countries of the former Soviet Union" (Clark, 2015). It was also reported that, "Kazakhstan is one of five countries that make up the Central Asian region which is a formal member of the Bologna Accords" (Clark, 2015).

Central Asian countries such as Kyrgyzstan and Tajikistan have made significant reforms to their higher education systems over the past decade that align them closely with the Bologna model. The other two countries in the region – Turkmenistan and Uzbekistan – maintain Soviet-style systems, yet are involved in a nascent project to align their higher education systems under the proposed Central Asian Higher Education Area (TuCAHEA) modelled on Bologna's European Higher Education Area (Clark, 2015).

The Scopus database shows that the shape and pattern of academic collaboration in the recent past were based on historical ties; however, emerging ties in contemporary times are driven by the internationalisation of higher education, positioning and image-making in the context of global university rankings, and soft power diplomacy. In this respect, in Central Asian republics where Soviet influence persists, starting with Tempus and then Erasmus, the EU has been and continues to be instrumental in creating various links between emerging higher education systems in Central Asia and European and other universities (Isaacs and Marat, 2021).

Notably, universities in politically insular or inward-looking countries are increasingly working with research partners from around the world as a result of the efforts of governmental organisations such as UNESCO and its regional offices. In the case of the EU and ASEAN, the European Union Support to Higher Education in the ASEAN Region (EU-SHARE) is the platform for EU universities to develop robust knowledge networks

for capacity building between themselves and ASEAN universities, and for intra-ASEAN collaboration (EU-SHARE, 2021). These networks, which involve intermediaries (Morshidi, 2017), have strengthened and continue to strengthen ties between ASEAN universities and have promoted EU-ASEAN university partnerships. Such knowledge domains driven by governmental organisations value scientific exchange and diverse international student bodies and research teams (World Economic Forum, 2022). As manifestations of soft power diplomacy, knowledge networks are explained as both horizontal collaboration between universities in different countries with similar status and vertical collaboration between flagship universities in the Global South and top-ranking universities in the Global North.

Bibliographic analyses are a relevant tool to quantify collaboration in academic publications as they are also the product of collaborations among researchers and institutions, and provide an overview of the structure and dynamics of research networks and collaboration (Dangles et al., 2016). An examination of the Scopus database for the periods 2000 to 2010 and 2011 to 2021 revealed the following patterns and trends with respect to academic collaborations between Asia and Africa and Latin America, and within Asia.

South Africa and Nigeria are among the top 20 countries in terms of collaboration with academics/researchers in South, and Southeast Asian countries. The number of academic collaborations manifested by the number of joint publications involving post-graduate students from Nigeria and their supervisors in Malaysia could explain the pattern of collaboration between academics/researchers in Nigeria and Malaysia in the Scopus database. Other Asian countries with a high proportion of postgraduate students from Africa are expected to display similar tendencies. The common Arabic language may explain the tendency for researchers and academics in West Asia to collaborate with countries in North Africa.

There are very few South-South collaborations involving researchers in East Asia, South-East Asia, West Asia, Central Asia, and South Asia and their counterparts in Latin America. An analysis of the Scopus data revealed that, except for Brazil, Mexico and to a lesser extend Colombia, no other Latin American country appears in the list of top 20 collaborators with these Asian countries. Even then Brazil, Mexico and Colombia appear at the bottom of this list as the numbers are very small.

The internationalisation policies of countries in the Global South, particularly Southeast Asia, are premised on the belief that a positive image of their higher education institutions (HEIs) and outstanding performance attract international students (Hazelkorn, 2016; Malaysia, 2015). The analysis of the Scopus database revealed an expected trend among Asian universities, namely, a tendency to jointly publish with authors/universities in English-speaking countries even though they have no historical connection with Britain or the US. In addition, countries in Central Asia are looking to Europe/the Bologna Process rather than the Asia-Pacific network.

While the number of intra-regional academic collaborations, for instance between Southeast Asia and Central Asia, has grown, these are attributable to academic collaboration between Southeast Asia and West and Central Asia through links with postgraduate students and supervisors in the southeast. Similarly, researchers in South Asia and Central Asia, especially Pakistan and India, are developing collaborations with neighbouring countries. Again, these are attributed to links between postgraduate students and their supervisors in South Asia.

Otherwise, the most visible forms of academic collaboration are among flagship universities in Southeast Asia that prioritise the UK, the US and Europe but not, as highlighted earlier, intra-ASEAN collaboration or that within Southeast Asia (Morshidi, 2017). In 2020, the coronavirus pandemic upended (higher) education systems around the world (Putz, 2020), and this is most evident in higher education systems that have internationalised. International staff and student mobility has been severely curtailed and this has negatively impacted the financial sustainability of universities that are dependent on inflows of international students. That noted, arguments that the COVID-19 pandemic has resulted in increased consciousness of South-South collaboration are yet to be proven as the Scopus database is yet to indicate this trend for 2020 and 2021.

Academic collaborations in the form of joint publications exhibits a robust North-South trend. Joint publications based on collaborative research with high-ranking universities in the Global North are strongly influenced by the need to improve institutional reputation/image and positioning. Furthermore, in many countries in the Global South, national governments actively encourage universities to expand academic collaborations with universities in the Global North and to improve the performance (and thus rating) of their national higher education systems.

The ADB (2011) reported that higher education systems across Asia experienced sharp growth in demand for access in 2011. In Indonesia, Japan, South Korea, and the Philippines, private universities enrol the majority of students - in some cases up to 80%. Consequently, higher education systems have grown outwards with the construction of new campuses to enrol more undergraduate students. At the same time, they are reaching upwards with the introduction of more graduate programmes to ensure a steady supply of qualified professors and researchers—with significance for academic collaboration (UNESCO Institute for Statistics, 2014). Underlying such economic dynamism, population trends and demographic changes will drive much of this growth, with a number of important shifts from region to region in Asia. Arguably, in the post-pandemic era, China and India will continue to be important sources of international students for countries in Southeast Asia, which will influence intra-Asian collaboration. However, China in particular will be attractive for students from Africa (ICEF, 2021).

Latin America

In the past 20 years, higher education in Latin America has expanded at a remarkable rate, growing from 11 million students in 2000 to almost 29 million in 2020 (UIS, 2021). This massive growth coincides with persistent past problems and new challenges emerging from the current context. Among the former, inequality is a central and constant feature which, in comparison with other regions, is expressed in lower income distribution indices and the magnitude of poverty that often present independent of the economic situation.

In this context of inequality, in recent years, enrolment in higher education has expanded as a result of the adoption of compulsory secondary education in almost all countries in the region, which has impacted the volume of students accessing HEIs. Furthermore, in the past decade, the proportion of students enrolling in private HEIs has increased, with the enrolment ratio between public and private HEIs now standing at 45.17% to 54.83%, respectively (OEI-OCTS, 2021). The concentration of enrolment in private HEIs enables higher education systems in the region to be characterised as "hyper-privatised" (Saforcada et al., 2019). However, socio-economic inequalities persist that are reflected in students'

difficulty in sustaining their educational trajectories, despite the support mechanisms available to them.

Over the past decade, the financial resources allocated to higher education have reflected changes in economic growth in each of the Latin American countries and the evolution of demographic and educational variables in terms of the degree of massification of higher education (García de Fanelli, 2019). The difficulties of financing higher education systems and the socio-economic problems confronting students' families characterise the first decades of this century.

The structural challenges described above coexist with the economic challenges that have emerged in the past two years. The COVID-19 pandemic had the immediate effect of reducing GDP across the region by more than seven percentage points, as well as household income (ECLAC, 2020).

Given these scenarios within the region, it is important to analyse how its universities are linked to those in different contexts. In terms of internationalisation, Latin America presents low and insufficient results in relation to established indicators. There is no explicit recognition of internationalisation in institutional missions, as the sector lacks strong leadership and suffers from poor communication and a lack of broad dialogue within the higher education community. Only 46% of HEIs that participated in a recent study reported that internationalisation is "very important" for institutional authorities (Gacel-Ávila and Vázquez-Niño, 2021), against 69% globally (Marinoni, 2019), suggesting a lack of interest in the process and the phenomenon.

According to the 5th IAU Survey (Marinoni, 2019), only 45% of Latin American and Caribbean HEIs reported having a formal internationalisation policy explicitly expressed as part of the overall institutional strategy, positioning the region below the Middle East (63%); Asia-Pacific (54%); and Africa (52%).

Latin America is also the region with the lowest percentage (16%) of HEIs that have included a set of global competences in graduate learning outcomes, below Africa (22%), Asia-Pacific (33%) and the Middle East (36%) (Marinoni, 2019). It is also the region where the fewest collaborative academic programmes (joint and double degrees) are offered, with only 40% of HEIs offering such programmes, in contrast to Africa (46%); the Middle East (59%); and Asia-Pacific (60%) (Marinoni, 2019).

In terms of outgoing student mobility, Latin America has the lowest percentage in the world in relation to its enrolment (1.26%), lagging behind other regions such as West and South Asia (1.55%), and sub-Saharan Africa (4.65%) (UNESCO, 2021). It also has one of the lowest inflows of foreign students (0.67% against sub-Saharan Africa at 1.68%) (UNESCO, 2021).

In general, a mobility deficit can be considered indicative of a system that is not sufficiently attractive to international students and academics for various reasons (academic, economic or social); and, in addition (or for the same reason), this causes students to move to other countries. The first obstacle to student mobility reported in Latin America is, unsurprisingly, the "lack of language proficiency among students"; followed by "administrative or bureaucratic difficulties, students' family and/or job commitments, low level of interest or participation among students and curricular inflexibility" (Gacel-Ávila and Rodrigues-Rodrigues, 2019). With respect to English language proficiency, a recent ranking by Education First (EF), which compares English language proficiency in 19 countries, ranked Latin America below Europe, Asia, and Africa (EF, 2020). Poor proficiency in English is among the "greatest obstacles to internationalisation" (Marinoni, 2019). These different findings highlight the region's marked backwardness in terms of training graduates in the professional and social skills that are important in today's global context.

An interesting finding is that, Latin America is the region with the third highest rate (42%) of intraregional mobility, after North America and Western Europe, and Central Asia and Eastern Europe. For all other regions, intraregional mobility represents only a third of the total, and has been reduced by almost 9% in favour of interregional mobility. However, in Latin America intraregional mobility has continued to grow (IESALC, 2019), driven by the fact that Spanish is the common language.

Latin America's efforts to promote outbound student mobility have not produced the expected results compared with other regions such as Asia. Furthermore, there is a need for national and regional strategies to attract more international students from outside the region (Gacel-Ávila and Rodrigues-Rodrigues, 2019). In terms of strategic partnerships and collaboration, the majority of agreements are with HEIs from within the region, followed by Western Europe, North America, Asia, Eastern Europe and Oceania. The fewest agreements are with African and Middle Eastern institutions.

Latin American universities have uncritically incorporated the hegemonic concept of internationalisation, which is reproduced in asymmetrical North-South cooperation dynamics based on research agendas that are exogenous to the Latin American region. This calls for the development of alternatives based on South-South cooperation policies guided by endogenous agendas (Oregioni, 2021). Such cooperation is at an early stage for the region in general, but there are some developments in particular countries.

There are educational agreements between Africa, Latin America and Asia which, although not sustained, constitute a scenario for dialogue with a future perspective. The Institute of Political Studies for Latin America and Africa (IEPALA) was created more than 50 years ago with the aim of promoting international study, solidarity and cooperation with the peoples of the developing world. The alliances between the Council for the Development of Social Research in Africa (CODESRIA), the Asian Political and International Studies Association (APISA) and the Latin American Council of Social Sciences (CLACSO) also promote South-South dialogue.

In terms of inter-country relations, Brazil has launched a major higher education cooperation programme with Portuguese-speaking Africa (Angola, Cape Verde, Equatorial Guinea, Mozambique and São Tomé and Principe). It focusses on training teachers, curriculum development, educational management, digital education and professional education as well as on strengthening institutional capacity and assessing HEIs' performance.

Rationale for South-South academic collaboration

The dominant form of academic collaboration in the Global South tends to be vertical in nature, i.e., North-South, except for Latin America where inter-regional collaborations are prominent. Mainly driven by resource flows and further consolidated by intense pressure and lofty ambition as well as interest in collaborating with institutions in the North, institutions in the South often overlook collaboration among equals in the South. The narrative and discourse around quality, rankings and prestige—some of the driving forces of collaboration—are important factors in seeking a stronger and more prominent partner which happens to be based in the North.

On the other hand, horizontal, i.e., South-South, collaborations are few and far between and where they exist, they lack visibility, sustainability and impact. And yet, South-South partnerships date back to the 1970s with the adoption of the Buenos Aires Plan of Action for Promoting and Implementing Technical Cooperation among Developing Countries (BAPA) by 138 UN Member States in Argentina on 18 September 1978. During this time, when the global socio-economic climate was entangled in Cold War politics, developing countries began to seek ways to chart the course of their own development as an alternative to the existing economic and political order (UN, 2019).

Arguably, there are South-South collaborative arrangements that go beyond the need to improve the image and reputation of those involved via vertical integration. For example, South-South cooperation is conceived as horizontal partnerships, where activities are based on trust, mutual learning and equity and conceived to establish long-term relationships (OECD, 2011). On this basis, South-South academic collaborations may not be purely based on or primarily driven by the need for HEIs to improve their institutional image/reputation and for the higher education system to improve its rating.

It is important not to underestimate the efforts made by many publicly-funded universities in the more developed higher education systems in the Global South to initiate research and publication activities with other countries in the less developed South based on common goals and mutual learning, and universities' broader societal purpose. In this respect, the agenda for inclusive and socially responsible universities (GUNI, 2022) in an inter-regional context underpins South-South academic collaboration.

These South-South academic collaborations are primarily driven by individual universities' sense of commitment to improving collaboration with universities in the South. However, they are often facilitated by government-to-government MoUs on academic collaboration and cooperation. These are facilitated through intra-regional associations comprising countries of the Global South such as the Association of Southeast Asian Nations (ASEAN), the South Asian Association for Regional Cooperation (SAARC), and Association of African Universities, among others. Inter-regional governmental arrangements also exist with regard to collaboration and cooperation in the higher education and cultural spheres. For instance, UNESCO has always promoted

partnerships and exchange among countries of the Global South based on common goals and objectives.

While South-South academic collaboration is being actively promoted and pursued, intermediaries from the Global North would normally dominate the space in facilitating it (Morshidi 2017; Teferra, 2016; 2022). Admittedly, South-South academic collaboration is more practical and effective at the institutional level based on broader agreement at the inter-regional or inter-governmental level. But even then, there are discernible patterns in these collaborations.

Historical and language ties are still important in influencing the direction and nature of collaboration. This is particularly true for Southeast Asian countries with a British colonial legacy or influence where Africa and in particular Nigeria are recorded as important in terms of joint publications. In Latin America, Brazil and Colombia top the list of important collaborators with Southeast Asian countries. Once again, it appears that English is the language of collaboration. However, the numbers are small compared to collaborations involving Nigeria. For Central Asia, Nigeria and to some extent Ghana are important; in Latin America, Brazil was the single important collaborator in publications. For South Asia, Egypt and South Africa in Africa, and Brazil in Latin America came top as important collaborators. In so far as West Asia is concerned, Egypt, other Arab countries in North Africa, and Nigeria are the major collaborators, while in Latin America, Brazil and Mexico came up very often as collaborators.

Pattern/experience of rationale across the three continents

In the majority of the countries in Southeast Asia, South Asia, Latin America and Africa patterns of collaborations follow historical ties. This is evident where former colonial powers continue as custodians of reputable centres of higher education where they anchor numerous key collaborations with those in the South.

Historical ties are slowly being deemphasised in the case of Central Asia, where alignment with Europe is seen as the future for the region's higher education. Even opportunities to align with Asia-Pacific are not being explored seriously by Central Asian countries. Arguably, in the case of Central Asia, governments have played an important role in determining the direction of alignment.

In many other countries however, institutions can, to some extent, determine collaborative partnerships. Arguably, if such partnerships are to be determined solely by institutions, Global North-Global South arrangements will dominate. These partnerships are based on vertical alignments in line with the need to enhance image and reputation, resource mobilisation and capacity building. In view of this, intermediaries such as UNESCO, the EU and even regional associations such as ASEAN need to play an important role in consolidating South-South collaborative arrangements and partnerships.

Latin American universities' pattern of links follows the colonial past with Europe and the influence of North America, and is limited by the inability of a large part of the academic community to manage in another language (other than Spanish or Portuguese), which leaves international relations to an endogenous and intra-regional scenario. The potential of South-South cooperation is evident, but it has not developed sufficiently to establish strong links that would allow it to transcend hegemonic cooperation schemes.

Conclusion

Institutions in the Global North are manifestly dominant in partnerships—leading, managing, and coordinating them—often exclusively. This has been one of the most chronicled and criticised aspects of academic partnerships attributed to the Global North's (often sole) ownership, closer proximity and implicit entitlement to resources (Teferra, 2016). These attributes are deeply manifested and embedded in the imperatives of collaboration, with massive implications.

South-South and South-South-North partnerships are growing in importance as their significance is gaining traction. However, they are often financially augmented by resources generated from the North, and often steered by them in Africa. In Asia, at least four types of academic collaborations are evident.

It is important to note that the imperative, and hence trend, of collaboration between and among the three regions vary as they are dictated and constrained by resources, objectives, history and languages. A new era of partnership and sense of collaboration has dawned in the post-COVID-19 world; it remains to be seen if this promising trend and spirit will continue in more equitable and sustained manner.

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Academic Collaboration in Africa and Asia: Current Status, Challenges, and Emerging Trends and Strategies

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Abstract

South-South cooperation has garnered much attention in recent times among states, policymakers, and academics and its scope is growing to encompass economic cooperation and health, education, research, and development initiatives. This article examines the current status of academic partnerships between institutions in Asia and Africa, the challenges confronting them, and the emerging trends and strategies. Practical examples are provided to showcase the current practices and challenges in each region. The article also highlights academic cooperation experiences during the COVID-19 pandemic and identifies the emerging trends and challenges in academic collaboration in Asia and Africa in the post-pandemic era. It proposes strategies for future North-South, North-South-South, and South-South academic collaboration. During the pandemic, academic cooperation in teaching, learning, and research across borders has demonstrated resilience and sustainability. Increased opportunities for collaboration within, between, and beyond Asia and Africa are being provided by technology-enhanced collaborative modes. However, the digital divide within and across the two continents will impact the future modalities of academic collaboration.

Résumé

La coopération Sud-Sud a suscité beaucoup d'attention ces derniers temps parmi les États, les décideurs et les universitaires et sa portée s'élargit pour englober la coopération économique et les initiatives de santé,

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d'éducation, de recherche et de développement. Cet article examine l'état actuel des partenariats universitaires entre les établissements d'Asie et d'Afrique, les défis auxquels ils sont confrontés et les tendances et stratégies émergentes. Des exemples pratiques sont fournis pour présenter les pratiques et les défis actuels dans chaque région. L'article met également en lumière les expériences de coopération universitaire pendant la pandémie de COVID-19 et identifie les tendances et les défis émergents de la collaboration universitaire en Asie et en Afrique dans l'ère postpandémique. Il propose des stratégies pour une future collaboration universitaire Nord-Sud, Nord-Sud-Sud et Sud-Sud. Pendant la pandémie, la coopération universitaire dans l'enseignement, l'apprentissage et la recherche au-delà des frontières a fait preuve de résilience et de durabilité. Des possibilités accrues de collaboration au sein, entre et au-delà de l'Asie et de l'Afrique sont offertes par des modes de collaboration améliorés par la technologie. Cependant, la fracture numérique au sein et entre les deux continents aura un impact sur les futures modalités de collaboration universitaire.

Introduction

Globalisation has brought the world together and opened up the international stage. Collaboration in all fields, particularly education, is no longer a choice but an obligation. South-South or what is referred to as 'Global South' collaboration has recently received much attention not only among policy makers but also among academics.

Academic collaboration in teaching, learning and research across borders has demonstrated resilience and sustainability during the COVID-19 pandemic despite intensified geographical tensions and disrupted physical mobility. Collaborative online international learning and virtual knowledge exchange have supported and sustained academic collaboration between individuals, institutions, countries and regions. Such modes not only offer more opportunities for collaboration within, between and beyond Asia, Africa, and other parts of the world, but also highlight the challenges raised by the digital divide within and across these regions, potentially reshaping future modalities of North-South, North-South-South and South-South academic collaboration.

From the perspective of higher education development, Asia and Africa are often associated with the term 'Global South' and framed as underdeveloped regions in contrast to the 'Global North', considered a

'developed' region. This discourse has shaped Asia and Africa's 'catch-up' mindset and strategies for international academic mobility and collaboration. For a long time, Asian and African countries such as China, India, Kenya, Nigeria and Morocco have been among the top senders of students to the Global North, especially the United States (US), United Kingdom (UK), Australia, France and Germany to 'learn from them' in terms of science and technology. However, the landscape is shifting with Asia's growing socio-economic development and new policy directions in the Global North. This has resulted in student mobility becoming "multidimensional" (Cheng, 2021). Furthermore, the collective scientific and academic initiatives that emerged to tackle the global health crisis in the form of the COVID-19 pandemic could transform the modes of South-South and North-South academic collaboration. It is against this backdrop that this article discusses emerging trends and strategies for academic collaboration in Asia and Africa and their experiences in this regard during the pandemic, as well as the challenges confronting such collaboration in the post-pandemic era. The pandemic highlighted the opportunities offered by the new technologies for academic collaboration, especially for the process of internationalisation at home, which can reduce the cost of mobility and contain the academic brain drain. New tools such as virtual exchanges and collaborative online learning offer opportunities for more collaboration between Africa, Asia and the rest of the world.

The article is based on a systematic literature review, with relevant papers selected and their findings checked for validity, and methodically synthesised. It reviews the most recent discussions on the 'changing' modes of South-South and South-North academic collaboration, and the developmental status in Asia and Africa to legitimise how and why such collaboration needs to change or is changing. Practical examples are presented and the challenges and emerging trends during the COVID-19 pandemic that will inform future collaboration strategies are highlighted.

Overview of Higher Education in Africa and Asia

This section provides general background information on higher education in Africa and Asia, focusing on its organisation and structure, its evolution and the current state of affairs.

Higher Education in Asia

The average global gross enrolment ratio (GER) in higher education has increased rapidly in the past 40 years, from 12.39% in 1980, to 29.40% in 2010 and 40.24% in 2020. Higher education has experienced phenomenal growth in all parts of Asia. East Asia has the largest number of students, as well as the most world-class universities, and a higher proportion of students in science, technology, engineering and mathematics (STEM) fields (Woetzel et al., 2015). Japan, Singapore, South Korea and other Asian countries have a relatively well-developed academic system. According to the QS World University Rankings 2021 published by Quacquarelli Symonds, nine of Japan's 775 universities fall within the Top 200; while seven of South Korea's 169 institutions and two of Singapore's 13 also make the list. As the most populous countries in Asia that are also undergoing rapid economic development, China and India experience the highest demand for higher education. Emerging economies such as Indonesia, the Philippines, Vietnam, Thailand and Malaysia are also expanding their higher education sectors. Together with the diverse programmes on offer, this has meant that more and more young Asians are entering tertiary education within or beyond their own countries, creating opportunities to shift trends in student mobility and modes of academic collaboration.

Higher Education in Africa

Higher education in Africa is closely bound to the history of the continent. Most of today's academic institutions were established by the former colonial powers and organised in line with their models. Indeed, higher education in Africa is the product of colonial policies (Altbach and Selvaratnam, 1989; Lulat, 2003). The French and British maintain substantial influence especially in terms of the medium of instruction and communication.

The nature of higher education in Africa differs from one region to another. West, East and Central Africa are far behind Southern and North Africa in terms of the number of institutions, students and staff, and institutional rankings. Seven of the top 11 universities in Africa are in South Africa and four are in Egypt. The number of higher education institutions also differs. Nigeria leads with 260, followed by Tunisia at 204, Morocco with 153, Kenya 129, and South Africa at 123, while Djibouti, Niger, Central African Republic, Equatorial Guinea, Comoros, and Réunion each have one university (Statista Research Department, 1 February, 2022).

Measured against international standards, Africa is the least developed region in terms of higher education institutions and enrollment (Teferra, 2004). The QS World University Rankings 2021 rank only one South African university, the University of Cape Town (at 240) among the Top 300 World universities. Seven other South African universities and three Egyptian institutions rank within the World Top 1 000. The lowest rankings are occupied by African universities. The ten universities from the Global South ranked among the World Top 100 universities are all from Asia, namely China, Japan, Hong Kong and Singapore.

Coupled with privatisation and marketisation, the medium of instruction and the funding models of universities in most African countries are real obstacles to their visibility and a hindrance to international collaboration. Unstable funding mechanisms and very limited funds for research give rise to limited publications and hence, visibility. This was highlighted during the COVID-19 period when many private universities closed their doors, while their public counterparts which are state-funded were able to conduct research and were involved in increased community engagements. Finally, cultural, historical and sociological factors have resulted in most African higher education institutions being characterised by gender imbalances. These challenges notwithstanding, it is recognised that higher education is a key sector for the development of Africa, and efforts are being made to improve its performance.

Literature Review

This section presents a brief review of the most recent discussions on the 'changing' modes of South-South and South-North academic collaboration, with a focus on Asia and Africa. The review reveals that capacity building is the key theme of North-South partnerships, particularly in relation to professional skills development (Cummings, Bergquist, Boateng, Phoxay, and Stadler, 2021; Haji et al., 2021) research capacity (Harris, 2020; Martinez and Sá, 2020; Weinrib and Sá, 2020) and knowledge transfer (Tamaldin et al., 2020). Capacity building of medical and health related professionals is a major sub-theme (Cummings et al., 2021; Haji et al., 2021) as is training of future leaders in the Global South and Southeast Asia and Africa (Borg, Borg Axisa, Ophiyandri, and Hakam, 2020; Huda, 2020).

Capacity building collaboration projects are often led by Global North countries. For example, the Erasmus+ United Capacity Building Higher Education initiative for knowledge transfer to Southeast Asian countries such as Malaysia, Indonesia, Thailand, and Africa aims to bridge the

knowledge gap between the Global North and South in terms of the 4th industrial revolution (Tamaldin et al., 2020). From 2014 to 2020, 62 Asian universities, including 30 in China, 24 in India and others in Indonesia, Malaysia, Sri Lanka, and Thailand participated as full host partners in 34 selected or re-selected Erasmus Mundus programmes. A total of 242 Asian organisations, representing 13 countries, participated in these programmes as associate partners during the same period (Campus France, 2021). African universities in Benin, Ethiopia, Kenya, Morocco, Nigeria, Tunisia, etc., have also been involved in Erasmus+ programmes.

The German Academic Exchange Service (DAAD) supports African higher education institutions' labour market and employability orientation through its Entrepreneurial Universities in Africa (EpU) programme. Other organisations in the north have partnerships with different African universities. However, North-South collaboration has been characterised as an unequal relationship (Harris, 2020; Martinez and Sá, 2020; Molosi-France and Makoni, 2020). Colonial power relations continue to shape understandings of the world and knowledge production. The "wealthier partner [often from the Global North] ... dominates the collaboration processes and activities" (Molosi-France and Makoni, 2020). Martinez and Sá (2020) note that the most frequently cited researchers in Brazil are those who actively co-authored with Anglo-American-Australian researchers during international mobility in their early careers.

New South-North or South-South-North partnerships for knowledge co-production are being established to challenge the inequality of the global knowledge production system. Weinrib and Sá (2020) cite the case of a Norwegian South-South-North partnership model that does so by prioritising Global South researchers' needs and emphasising participatory decision-making. Quiroz-Niño highlights the need for 'knowledge democracy' in research projects between academics in Global North and Global South countries and adds that this is achieved by working together to define relevant concepts and establish objectives and research questions in order to gain multiple perspectives.

Appreciation of multilateral perspectives is becoming an emergent discourse and practice in both North-South and South-South academic collaboration. An example is co-authorships between Australian and South Korean researchers that are facilitated by the US or China (Choi, Lee, and Zoo, 2021).

Independent South-South collaboration is also growing, with inter-

regional efforts motivated by the need to share knowledge and expertise among governments, organisations, and individuals in countries that have common objectives and can relate to one another's challenges, instead of adopting non-contextualised solutions from developed countries (Lebel and McLean, 2018). South-South academic collaboration is crucial to the overall growth of the Global South. However, research funding is extremely limited in developing countries, where researchers also confront other constraints (Macgregor, 2013). Funds allocated to universities and higher education institutions in the Global South comprise a far lower percentage of Gross Domestic Product (GDP) than the more than 2.46% of GDP allocated in the Global North (Rethinking Research Collaborative, 2018).

Connected by a shared vision, South-South cooperation emerged as a result of a desire to sustain growth and to 'share the burden' as developing countries, especially after the 2010 global financial crisis (Fiddian-Qasmiyeh and Dakey, 2018). The following section highlights experiences and examples of intra-and inter-regional cooperation within and between Asia and Africa, demonstrating the trend of diverse multilateral academic collaborations between South-South and South-North countries.

Academic Collaboration within, between and beyond Asia and Africa

Economic globalisation has made it more urgent for Asia and Africa to consider how to secure their future by constituting themselves as a regional bloc in the same manner as the European Union (EU) (ADB, 2008). Indeed, as it moves towards a more regionally integrated economic system and comprehensive free trade zone, Asia will consider regionally convertible educational credentials across colleges and universities. This would have implications for wider international cooperation. More attention is being paid to academic relations and knowledge exchange opportunities with partners in other countries, particularly in Asia and Africa. The following sub-sections discuss each region in turn.

Academic Collaboration within Asia and Africa

Within Asia, academic mobility and collaboration is growing between East and Southeast Asia. In 2016, China and the Association of Southeast Asian Nations (ASEAN) formulated the China-ASEAN Education Cooperation Action Plan 2016-2020. The Guiyang Statement issued by the China-ASEAN Education Ministers Roundtable Conference in 2010

committed to joint training of Master's and doctoral students and high-level talent exchanges. Chinese universities such as Xiamen University, Ocean University of China, and Guizhou University, etc. signed cooperation agreements with universities in ASEAN countries for joint training of Master's and doctoral students and inter-university exchanges for the establishment of high-level talent think tanks. Examples include the Cooperation Agreement between Xiamen University and Singapore's Nanyang Technological University (NTU) (2006), the Inter-University Cooperation and Exchange Agreement between Guizhou University and Laos National University (2009), and the Cooperation Agreement between Ocean University of China and Prince of Songkhla University, Thailand (2019). By 2020, China had established mutual recognition systems for higher education qualifications, degrees and diplomas with 41 countries in the region, including ASEAN countries, Thailand (2007), Vietnam (2008), the Philippines (2009), Malaysia (2011) and Indonesia (2016). This provides an institutional guarantee for overseas students, postgraduates and advanced scholars to study in China and relevant countries.

The recent Fifth ASEAN Plus Three Education Ministers' Meeting issued a joint statement that points to stronger partnerships between ASEAN member states and China, Japan and South Korea under the guidance of the ASEAN Plus Three Plan of Action on Education, 2018-2025. Regional cooperation and collaboration among ASEAN and Plus Three countries is expected to grow with commitment to and the expansion of CAMPUS Asia or the Collective Action for Mobility Programme of University Students in Asia, which was established in 2016. The COVID-19 pandemic highlighted the need to strengthen cooperation in education and people-to-people exchanges among South Korea, Japan, China and the ASEAN. CAMPUS Asia is set to expand to include Southeast Asian countries under a new programme, CAMPUS Asia Plus in 2022 (Yojana, 2022).

Global inbound mobility in Asia reached 684 592 students in 2019 compared to 378 366 inbound students from within Asia, while global outbound mobility stood at 2 062 139 against 784 830 outbound students within Asia. Indeed, Asian students seem to prefer studying within their region (UNESCO, 2022). Malaysia is the top destination in Southeast Asia for students from China (29%), Indonesia (21%) and Bangladesh (17%). In South Asia, India is the top destination country for students from Nepal (50%), Afghanistan (18%) and Bangladesh (8%), while Japan in East Asia is the main destination for half the Chinese incoming students, followed by Vietnam (20%), and Nepal (9%) (Palit et al., 2021).

Recently, some African universities have shown increasing interest in partnerships with Asian universities. For instance, Morocco was unanimously granted associate membership of the Southeast Asian Ministers of Education Organization (SEAMEO) in 2021. It is the first Arab and African country to achieve this status, consolidating its position as a privileged interlocutor in the region for the countries of Southeast Asia. In 2020, a feasibility study of the Moroccan educational information system platform (with a donation of $15 million) was carried out in partnership with China in order to prepare Cloud classroom infrastructure, infrastructure for Cloud services and high performance computing. Morocco collaborated with Japan in the fifth session of the Moroccan-Japanese Mixed Committee in January 2020 in Rabat and the steering committee of the sixth session of the Initiative ABE programme in November 2019, also in Rabat.

While most African universities' efforts have focused on building partnerships with universities in Europe and America, their attention has recently turned to institutions in the rest of Africa. Collaborations and partnerships between African universities have come a long way. The Association of African Universities (AAU) was formed in September 1963 with the strategic objective of facilitating greater collaboration among the heads of African higher education institutions. It currently has more than 400 members from around the continent and strives to advance higher education by recruiting more. Another South-South collaboration is the Youth Employment in the Mediterranean project (YEM), funded by the EU and implemented by UNESCO (2018-2020), which builds on the achievements of the Employment Component of the Networks of Mediterranean Youth project (NET-MED Youth). In alignment with UNESCO's Strategy for Technical and Vocational Education and Training (TVET) 2016-2021 and Sustainable Development Goal (SDG) 4, the YEM aims to address youth unemployment in the region by improving skills anticipation and assessment systems and the quality and relevance of TVET, and by fostering regional cooperation among the eight beneficiary countries: Algeria, Israel, Jordan, Lebanon, Libya, Morocco, Palestine and Tunisia.

A South-South collaboration involving Central Africa is the Regional

Coordination Group on SDG4-Education 2030 in West and Central Africa (RCG4-WCA) that was founded in May 2016. Under the guidance of the Regional United Nations Development Group (RUNDG), it aims to strengthen synergy between the actors who support the implementation of the Education 2030 Agenda in the West and Central African region, taking into consideration their unique development contexts and aspirations. To this end the RCG4-WCA also strives to incorporate the tenets of the African Union (AU) frameworks in its work towards the achievement of the SDG4 targets. The RCG4-WCA covers 24 countries, including Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Equatorial Guinea, Republic of Congo and Sao Tome and Principe.

The African and Malagasy Council for Higher Education (CAMES) seeks to address the problems confronting higher education in the French-speaking countries of Africa and Madagascar. It dates back to the first years of their independence, with the convention on the status and structure of the CAMES signed by 16 Heads of State or Government on 26 April 1972 in Lomé. There are 18 members of CAMES, among which are the countries of Central Africa.

Cooperation among African countries is mainly guided by the United Nation's 2030 agenda for the SDGs and their own 2063 agenda. Striving to create intra-African solutions instead of foreign ones, many African countries have launched initiatives to support development, upscale knowledge and share technical expertise. These efforts are guided by the advisory services of agencies such as the UN Development Programme Regional Bureau for Africa (UNDP), the UN Office for South-South Cooperation (UNOSSC), and in-country units such as the South-South Center in Kenya, and academic agencies such as Partnerships for Higher Education in Africa (PHEA), the African Union's support for the continent's higher education, the African Foundation for Capacity Building (AFBC), the Economic Community of West African States (ECOWAS)'s efforts in funding graduate education in its network of 15 countries up until 2020 and the West African Economic and Monetary Union.

Other South-South collaborative capacity development projects initiated by UNESCO include teacher education programmes, such as the Enhancing of Teacher Education in Africa Program funded by the Chinese government which aims to upgrade teacher training in sub-Saharan African countries via the use of ICT, and the Building the Capacities of Teachers and Teacher Trainers Program through Curriculum Reforms, funded by the Hamdan Bin Rashid Al-Maktoum Award for Distinguished Academic Performance of the United Arab Emirates. UNESCO-initiated programmes that promote women and girls' education include the Malala Fund for Girls, supported by the Pakistani government and South Korean CJ fund, the South Korean funded CJ Strategic Partnership for Girls Education and the HNA partnership for Girls and Women's Education supported by a Chinese financial services company from 2015 to 2020. Technical and Vocational Education and Training programmes supported by UNESCO are a further area for cooperation among Global South countries. Examples include the Better Education for Africa's Rise project co-funded by UNESCO and the Republic of Korea from 2017 to 2021. The project assisted five East African countries, Ethiopia, Kenya, Madagascar, the United Republic of Tanzania, and Uganda, to improve the relevance, quality, and awareness of their TVET systems. The UNESCO-Korea Funds-in-Trust funded programmes to integrate ICT in education for the benefit of both educators and learners. The first phase was implemented in Mozambique, Rwanda, and Zimbabwe from 2016 to 2019 and the second involves Côte d'Ivoire, Ghana, and Senegal from 2020 to 2023. UNESCO's efforts go beyond educational projects to create international and regional fora, networks, and knowledge exchange as well as prizes individually or co-initiated with Global South countries, such as the UNESCO International Literacy Prizes, the UNESCO Prize for girls and women, and the UNESCO-Japan Prize for education for sustainable development to motivate governments, organisations, and individuals to lead and implement innovative South-South collaboration initiatives (UNESCO, 2021).

Novel forms of South-South collaboration have emerged since the launch of the UN's 2030 agenda in 2016. These include knowledge exchange and research on climate and development policies through the creation of networks and research groups. However, as at 2017, these remained loosely connected (Rennkamp and Boulle, 2018). The UN General Assembly's 2018 report states that scaling up the Global South's efforts to achieve the 2030 agenda's goals requires the cooperation and contributions of a wide range of stakeholders, including the private sector, civil society organisations, charities, academia, and think tanks.

Academic Collaboration between Asia and Africa

East Asian countries have their own strategy to connect with the world, bearing local needs in mind. China has established closer academic collaboration with Africa through the Belt and Road Initiative. A number of high-level joint laboratories, known as China-Africa Joint Research Centers and China-Africa Innovation Cooperation Centers have been built by China and African countries. These platforms promote exchanges and training in science and technology as well as technology transfer, innovation and entrepreneurship (Ma, 2021). China has actively shared its experience and technology in agricultural development with African countries and supported them to enhance their capacity. Since 2012, 7 456 African agro-technicians have been trained, and 23 agricultural demonstration centres have been built. China also trained 20 000 African medical professionals as part of its efforts to improve the continent's medical standards and respond to the COVID-19 pandemic.

Japan recently unveiled a package of strategies for broader international academic collaboration. The Inter-University Exchange Project (IUE) program was launched by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) to strengthen exchanges with outstanding universities in Asia, the US, and Europe and build an international cooperation network for higher education as well as cultivate international talent. It covers a wide range of disciplines, including the 'hard' disciplines of Japanese universities such as materials science, nuclear science, and food science, and the 'soft' ones of Japanese culture and language. It has involved universities in Asia, Europe, North America, South America and the Middle East (Xiong and Chen, 2020).

Geopolitical and economic factors resulted in India traditionally enjoying a healthy relationship with African countries. Drawing on indigenous African practices is a major feature of its education assistance to Africa. For example, in Ethiopia, India has focused on developing sugar and transportation and storage technologies in the context of its well-developed plantation industry so as to ensure the development of Ethiopia's specialist industries and increase the value added of its products. In Rwanda, India provided solar photovoltaic equipment worth about $1 million to 35 educational institutions. The Indian government invested Rs. 425 million in the construction of Rural Technology Parks in South Sudan (Wei and An, 2016).

Thus, it cannot be denied that the development of the southern regions is partly due to support from the North through North-South and North-South-South cooperation. Multiple projects that support developing countries have been established by Northern funders. Study visits or exchange programmes are a common feature of such collaboration. The US Department of State funds scholarships for educational and cultural exchange for countries in the Middle East and North Africa (MENA) region as well as countries with a Muslim population. The programmes, which last from couple of weeks to four years of undergraduate study, aim to develop mutual understanding between the two cultures, and offer educational opportunities for students from disadvantaged communities to study and conduct research in American universities (Bureau of Educational and Cultural Affairs Exchange Programs, 2022.). The Eiffel Excellence Scholarship Program initiated by the French Ministry of Foreign Affairs and Europe enables French higher education institutions to host outstanding foreign students from developing countries to enrol in Master's and doctoral programmes (Campus France, 2022).

It is estimated that 5% of Africa's higher education students have crossed a border for education purposes, including 404 000 sub-Saharan African students attending university in foreign countries. This number is expected to reach 22 million by 2027 (Kigotho, 2020). Nigeria had the highest outbound mobility in West Africa in 2017, with 85 000 students studying abroad. Other West African countries with significant outbound mobility include Cameron, Ghana and Angola. In North Africa, Morocco has the highest outbound mobility with 56 730 students studying abroad in 2019, followed by Egypt, with 43 718, Algeria with 31 288, Tunisia with 24 248 students, and Libya with 9 385 (UNESCO, 2022).

The significant growth of North-South and North-South-South academic cooperation or partnerships has raised the question of 'what's in it for the North?' Furthermore, the literature raises the issue of the terms of partnerships and cooperation in the field of education.

Emerging trends and Challenges to Academic Collaboration in the Post-COVID-19 Era

The COVID-19 pandemic came at "a time of fragile global relations" (Mok and Montgomery, 2021, p.375). Geopolitical tensions have undermined South-North research collaboration, leading to changes in the structure

of international scientific teams, with a narrowing of team membership and the exclusion of developing countries. Recent geopolitical events, such as the UK turning its back on the EU and the US retreating from multilateral trade and cooperation, seem to indicate a tendency towards de-globalisation, accompanied by the reinvigoration of nationalism and populism in certain countries. In this context, the sudden outbreak of the pandemic lit the fuse of nationalism (de Wit and Altbach, 2021). These tensions have led to increasing concerns about scientific nationalism, i.e., that "political rhetoric and protectionist policies would correspond with a decline in international collaboration" (Lee and Haupt, 2021, p. 322).

The COVID-19 pandemic also dealt a heavy blow to economic and social development. The drastic drop in the number of international students caused by the pandemic led to a significant loss of revenue largely generated from tuition fees (Mok et al., 2020) while higher education also bore the burden of COVID-19 management and prevention, as well as online teaching, etc. (de Wit and Altbach, 2021). Financial, mobility and other challenges have made it difficult for researchers from the Global South to build new networks for academic collaboration. Finally, the pandemic consolidated the global stratification of scientific capacity and deepened the inequalities between the Global North and South.

However, the COVID-19 pandemic and global geopolitical changes are also shaping new forms of international exchange and cooperation in higher education, leading to the emergence of new trends. Transnational education has been widely promoted as an alternative to international student mobility by Asian countries as it allows students to receive foreign education in their home country. It is likely to persist as an important tool for international educational mobility in the post-COVID era. Asia has become the leading region in terms of Transnational Education Zones, being home to seven out of eight of these zones worldwide (Suzhou Dushu Lake Science and Education Innovation District (China); Incheon Global Campus (South Korea); EduCity Iskandar Malaysia (Malaysia); Dubai International Academic City, Dubai Knowledge Park, and Ras Al Khaimah Economic Zone (United Arab Emirates); and Education City, Greater Doha Region (Qatar)) (Kleibert et al., 2021).

A new trend of regionalisation in student mobility and scientific research is also taking shape in Asia, with observers noting that the flow of international students from East-to-West is changing to an East Asia-oriented mode (Marginson, 2020a). This could be further enhanced by traditional destination countries' (e.g., the US, the UK, and Australia) visa restrictions and travel bans, and students' concerns over safety and security while studying in these countries. East Asian countries have demonstrated strong potential to become major destinations for international students (UNESCO, 2021) with their relatively sound pandemic control, easing parents' concerns over their children' safety, especially for students from Asia and Africa. As for scientific collaboration, the pandemic has also provided "a precious opportunity to enhance regional collaborations" (Mok et al., 2021, p. 8).

Some Asian countries have closed their borders and prohibited student and staff mobility. For instance, China has not allowed any students to enter the country, including those who had to return home in the spring of 2020, causing much dissatisfaction. The China International Student Union (CISU) was established during the COVID-19 crisis to highlight the challenges and frustration faced by international students, including the fact that they had to pay the same fees for online courses, which were, according to them, "of very poor quality" (Campus France, 2021).

The COVID-19 pandemic revealed the vulnerability of African higher education systems and infrastructure. The most difficult task was to keep students learning while institutions were closed. Most African higher education institutions were not prepared for the crisis and the majority of the learning models implemented were emergency solutions. For example, only 40% of Makerere University in Uganda's courses were online on the Makerere University e-Learning Environment when the pandemic broke out (Makerere University, 2020). However, online learning is now an accepted mode of delivery in most African universities, as it is worldwide. Moreover, while several African universities had previously contemplated investing in educational technology, the pandemic accelerated its adoption.

What will happen to the partnerships developed once humanity has survived the many waves of the pandemic? (Igwe, Achike and Nwanguma, 2021). While it may be too soon to provide a definitive answer to this question, circumstantial evidence can be used to predict the likely future of higher education collaborations. Igwe et al. (2021, p. 57) suggest that scientists are determined to strengthen current collaborations and establish new ones in remote areas. If this is the case, collaborations will continue for the time being, with little room for modification.

However, the pandemic has highlighted how fragile humans are and how unprepared they are to deal with global issues. It has taught Africa that national systems, including higher education institutions, must re-evaluate how they provide services. Crafting novel solutions, as well as making education accessible and affordable to all, remain critical. Existing partnerships must be deepened, and new ones must be forged in order to achieve this. More collaborative arrangements and inventive solutions to educational difficulties are required.

The major current trend in academic collaboration in higher education in Africa is assuredly to overcome the aftermath of the changes brought about by COVID-19 that students have experienced over the past three years. These new circumstances have deeply affected students' life plans and priorities as well as their interest in online classes. For example, 9.8 million African students experienced disruptions in their studies due to the closure of their institutions. Overall, one in four students could no longer attend the higher learning institutions where they were enrolled in March 2020 (Campus France, 2021).

The pandemic did not, however, put an end to African students' mobility. Whether outside or inside the continent, the number of young people who move to other countries for training has continued to grow, reaching nearly 550 000 in 2022 out of global mobility of 5.6 million (Berthaud-Clair, 2022). Today, one in ten 'outgoing' students is African and the continental mobility rate is twice as high as the world average. France, which is by far the number one destination for young Africans since it welcomes a third of them, saw an average increase of 16.5% in 'incoming' students in 2021.

The pandemic has also made North Africa an ideal destination. Mamadou Keïta, president of the Development Unit (CPD), an aid association for Malian students based in France, explained that COVID-19 has forced young people to postpone their move to other countries, including their own continent. He states that. "In order not to have a break in studies because of ... COVID, many have turned to Morocco, Algeria or Tunisia". Indeed, a third of African student mobility takes place within the continent. According to UNESCO, Africa-Africa exchanges involve at least 180 000 young people each year, with the real figure likely to exceed this given that data for demographic heavyweights such as Egypt is not available.

The two African countries that stood out during the pandemic are South Africa and Morocco. Morocco's attractiveness trebled in less than ten years. It is followed by Senegal, Ghana, Cameroon, Algeria, Uganda, Kenya, Ivory Coast, Benin, Tunisia, Niger, Burkina Faso, Madagascar and Rwanda. Nigeria's Fati N' Zi-Hassane, Head of the Human Capital Development Division of AUDA-Nepad, the development agency of the African Union (AU) states that "The confinements caused schooling disruptions, but it was above all the ensuing economic crisis that weakened mobile students on the continent, because they depend on scholarships ... the return to university benches is done, but it is difficult to say how many are left behind".

The health crisis also caused significant disorganisation. Many scholarship students were stuck in their host country, sent home or even forced to abandon their course for lack of means. Congolese Yamungu Along Boniface, vice-president of the interim office of the African Student and Alumni Forum (ASAF) in charge of mobility affirms, "We have seen all sorts of unique situations. Students have struggled to put these long months to good use, especially thanks to the internet, but 2020 is a lost year and scholarships could not always be extended into 2021".

The African continent is organising to facilitate exchanges and academic partnerships are flourishing in all directions: dubbed Afridi, Mounaf, Capitum or even Ramsess, these platforms link schools from Dakar to Antananarivo and Fez to Pietersburg, with support from private and European funds. The EU, which has just celebrated ten years of its Intra-Africa mobility programme, has developed a network which now involves 79 establishments in 25 African countries. Binational partnerships with regional influence such as the Franco-Senegalese Campus, the France Côte d'Ivoire Campus, the French University of Egypt and the opening, in 2019, of the Franco-Tunisian University for Africa and the Mediterranean (UFTAM) have boosted these efforts (World Bank, 2020).

A further emerging trend in academic collaboration in Africa is sub-Saharan African students' mobility to North Africa, drawn by educational opportunities, good quality programmes, the wide variety of offerings and the relatively low cost of living and tuition fees. Sub-Saharan African students that struggle to gain admission to European and North American universities are now looking to North Africa.

Morocco has become a major destination for sub-Saharan African students, hosting more than 18 000 including 6 500 recipients of

scholarships from the Moroccan Agency for International Cooperation. Established in 1986, the agency administers the reception of foreign students, provides administrative support and ensures students' distribution across the country. Morocco is attractive to students due to its geographical proximity to the countries of West Africa, the quality and variety of its educational offerings, including programmes directly relevant to Africa's development needs, and the aforementioned scholarships. Attracting foreign students is part of Morocco's emphasis on South-South cooperation and is considered to be of strategic importance for the kingdom (Tasnim and Aggad, 2018). The main countries of origin of incoming students in 2018 were Mali (2 744 students), Ivory Coast (1 701), Guinea (1 608), Gabon (1 366) Senegal (1 275), Mauritania (1 230), and Congo (1 218 students).

Morocco has unveiled a 15-year development model that aims to establish the country as a regional hub for higher education, research and innovation in order to attract students from the African continent and beyond (Sawahel, 2021). Elizabeth Buckner, assistant professor at the Ontario Institute for Studies in Education at the University of Toronto in Canada describes this model as a significant initiative and an important step in Morocco prioritising the SDGs. She notes that, "Morocco has a long history of being a crossroad for different parts of Europe, Africa and the Arab World, and has a lot to offer as a hub for science and learning" (Sawahel, 2021).

Tunisia is also developing a new vision for cooperation in higher education. The country was ranked second in scientific output on the African continent in 2016 and is looking to capitalise on its research infrastructure to attract foreign researchers to its more than 600 research units and laboratory facilities (Tasnim and Aggad, 2018). Tunisia currently hosts more than 5 000 sub-Saharan African students. Around 1 500 are enrolled in public universities through scholarships offered by the Tunisian government, while the majority are enrolled in private institutions.

Strategies for Future Academic Collaboration in and between the South-South, North-South, and North-South-South

The COVID-19 pandemic taught the world an important lesson and highlighted that only cooperation can ensure the common existence and development of humankind. Academic collaboration has become a valuable tool for universities around the world to enhance the quality of their education and research. Both the Global North and the Global South have recognised the unique and considerable opportunity academic collaboration represents for tertiary education.

The pandemic also highlighted the need for institutions to rethink their internationalisation and collaboration models by increasing internationalisation at home. This could be a key strategy to boost South institutions' capacity to implement internationalisation and in facing the colossal impacts of the pandemic. Well-formulated policies are required for internationalisation at home to be extended and widespread among African and Asian higher education institutions.

Firstly, strong institutional leadership, rigorous curriculum design and professional development opportunities for students and staff are required. African higher education ministries need to enhance Internet access to universities, build virtual partnerships with international universities for joint classes, create student forums to engage in exchange and research and foster language training programmes offered by universities through affordable online courses (World Bank, 2020).

Another essential strategy is the implementation of a regional approach and regional networks that bring together students and professors from other countries in the region or neighbouring regions, as well as partnerships and exchange programmes at the regional level. 'Regionalisation' offers several benefits; however, regional integration in higher education and research requires that countries share a common vision and commitment to higher education as a source of their economic and social development. It not only requires that barriers to the mobility of students and staff be removed, but also investment in capacity building for higher education and research through establishing national research funding agencies, large-scale infrastructure, and joint research centres and laboratories as well as multiple mobility programmes.

Digitalisation of higher education and research is equally important. There is also a need to develop a more equal and effective approach to North-South collaborations. As African universities engage in more international academic collaborations, they become enmeshed in debates and agendas determined by and for Northern higher education systems that respond to different social, economic and political demands and ideas (Downes, 2013). Some North-South collaborations may not match

priorities in the Global South and are sometimes counter-productive. Therefore, governments need to take the initiative to develop genuine and equal North-South partnerships. African countries need to set national strategies and initiatives in order to attract more international students. However, it is recommended that these strategies be implemented at the inter-ministerial level (World Bank, 2020).

Within the context of the COVID-19 pandemic, this strategy may have several advantages for both the North and the South. Therefore, in the post-pandemic era, North and South countries should strengthen collaborations that jointly respond to global issues and disasters, abandon extreme nationalism and confrontation, and pursue a more inclusive and sustainable future.

In tackling nationalism, international organisations such as UNESCO can promote debate and reflection on shared challenges and human destiny (UNESCO, 2021). South-South networks would enable universities to identify collaboration projects that prioritise the needs of the Global South. Current funding schemes initiated by the Global North should invite partners in Global South countries to co-design the objectives and outcomes of collaborations rather than simply receiving aid from the North.

There is no doubt that information technology and the Internet will play a greater role in international academic collaboration in the post-pandemic era. More specifically, it will pool quality teaching and learning resources and make them accessible to students who would otherwise have found it difficult to access them. It will also expand virtual mobility and exchange of knowledge among academics and students from a wide range of backgrounds, and promote university governance that actively engages with society. However, this requires that collaboration between countries and continents goes beyond education to build technological infrastructure to enable knowledge exchanges and mobility and reach more people. Collaborating with the business community, such as ICT firms, could also promote the development of long-term solutions to Africa's Internet and ICT difficulties (Tumwesigye, 2020).

Conclusion

This article discussed the current status, challenges and emerging trends and strategies in academic collaboration in Africa and Asia. It revealed that while most Global South universities' efforts have focused on building

partnerships with universities in Europe and America, their attention has increasingly turned to institutions in Asia and Africa. Collaborations between Asian universities have increased and African universities have also realised the need to collaborate with universities in the Global South. Partnerships between universities within the same country are also critical to address micro-level issues such as private universities' low or non-existent academic research output due to a shortage of professors and researchers (Nawange et al., 2021).

North-South, South-South, or North-South-South collaborations enable resources, experience and skills to be pooled and incorporate dissimilar perspectives to achieve a common goal. The COVID-19 pandemic revealed how unprepared the human population is as well as loopholes in the different modes of partnerships. The literature notes that the power relations associated with North-South partnerships limit their benefits (Downes, 2013) and that many partners in the North still interpret North-South cooperation as development aid (Africa Unit, 2013). Therefore, partners from the North - the 'source' of resources essential for the partnership - are perceived as more powerful and tend to dominate the southern partner. This results in a unidirectional partnership with more benefits to the North than the South. Furthermore, North-South partnerships are prone to challenges resulting from different goals, rationales and priorities (Greer, 2019; Saxena, 2006). Consequently, northern partners often set conditions for partnerships that are incompatible with the context of the South. This results in conflicts that must be resolved for the partnership to progress.

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Global South Research Collaboration: A Comparative Perspective

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Abstract

Research collaboration has become a major research topic in the social sciences. While this literature has mainly focused on collaborative dynamics in the Global North, more recent studies have examined these dynamics within the Global South. This article expands the scope of analysis by comparing the level of co-publications by Global South-based scholars with Global South-based colleagues and that between academics at Global South institutions and researchers in Global North universities. It shows that academic partnerships within the Global South are less common than instances of collaboration between the Global South and Global North. The relatively weak Global South collaborative dynamics are at odds with most Global South leaders' encouragement of partnerships between scholars within the South. The article also demonstrates that collaboration seems to be largely informed by linguistic commonality and historical (colonial) relations of dependency. Contrary to expectations that US-based academics would be the primary partners for Global South academics due to US hegemony, the latter are more likely to collaborate with colleagues in European countries, more specifically countries that colonised their countries.

Résumé

La recherche collaborative est devenue un sujet de recherche majeur en sciences sociales. Alors que cette littérature s'est principalement concentrée sur les dynamiques collaboratives dans les pays du Nord, des études plus récentes ont examiné ces dynamiques dans les pays du Sud. Cet article élargit la portée de l'analyse en comparant le niveau de

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copublications par des universitaires du Sud global avec des collègues du Sud global et celui entre les universitaires des institutions du Sud global et les chercheurs des universités du Nord global. Il montre que les partenariats universitaires au sein du Sud global sont moins courants que les exemples de collaboration entre le Sud global et le Nord global. La dynamique de collaboration relativement faible du Sud global est en contradiction avec l'encouragement de la plupart des dirigeants du Sud global aux partenariats entre universitaires du Sud. L'article démontre également que la collaboration semble largement influencée par les points communs linguistiques et les relations historiques (coloniales) de dépendance. Contrairement aux attentes selon lesquelles les universitaires basés aux États-Unis seraient les principaux partenaires des universitaires du Sud en raison de l'hégémonie américaine, ces derniers sont plus susceptibles de collaborer avec des collègues des pays européens, plus précisément des pays qui ont colonisé leur pays.

Introduction

There is a growing body of literature on research collaboration through co-publication between scholars within the Global South. The broad consensus is that authors are increasingly co-producing research with peers rather than publishing alone. Although this trend is more visible in Europe and the United States (US), it is apparent in many regions of the Global South (Moody, 2004; Owusu-Nimo, 2017; Pohl and Lane, 2018). While the literature on academic collaboration previously focused on science, technology, engineering, and mathematics (STEM) subjects, coverage has recently expanded to include the social sciences and humanities (Babchuk, Keith and Peters, 1999; Gingras, 2016).

Our study highlights research on these trends in Latin America, East Asia, and sub-Saharan Africa. Previous studies tended to focus on a single region in the Global South (Arunachalam and Jinandra Doss, 2000; Gueye, 2018; Gueye et al., 2019; Guzmán-Valenzuela and Gómez, 2019; Hammond, 2019; Pineda, Gregorutti, and Streitwieser, 2020). While they make unique contributions, they do not reflect the historical and economic complexity of the Global South which spans countries with divergent historical narratives, different official languages and economies, and scientific undertakings that reflect different stages of development.

This article addresses three key questions, namely: (1) What trends are evident in academic collaboration in the Global South? (2) Are scholars in formerly colonised countries inclined to collaborate with scholars based in the Global North? (3) Have efforts to promote South-South academic collaboration resulted in a high level of co-authorship between researchers based in different regions?

Collaboration... a Polysemic Notion that is Difficult to Assess

As noted by Mullins (1970), Babchuk, Keith and Peters (1999), and more recently Kotiranta et al. (2020), academic collaboration takes varied forms, including co-authorship, funding ventures, data co-collection, and grant co-application. This article focuses on co-authorship and joins the long list of studies that use bibliometric tools such as SCI, Scopus, and Web of Science to analyse academic collaboration. We chose this approach because it is relatively easier to access, track, record, and verify than other forms of collaboration (Katz and Martin, 1997; Gonzáles-Teruel et al., 2015).

Much of the research on academic collaboration has been concerned with the rationale that drives it. Numerous studies have identified material gain as a major motivation (Guzmán-Valenzuela, 2019). This takes the form of the reputational advantages of differentiated capital such as knowledge, social networks, skills, and resources that a single individual would find difficult to access (Goffman and Warren, 1980; Pravdic and Oluic-Vukovic, 1986; Kyvik and Teigen, 1996; Thorsteinsdottir, 2000; Beaver, 2001; Bozeman and Corley, 2004; Tanga and Shapira, 2011; Bozeman, Fay and Slade, 2013; Woldegiyorgis, Proctor and De Wit, 2018; Eduan and Yuanqun, 2019). However, some scholars challenge the link between collaboration and material gain. Duquel et al.'s (2005) analysis of data from three locations on two continents (Kenya, Ghana, and Kerala, India) demonstrated that Kenya has the lowest level of research productivity even though the number of academic collaborations is highest among the three countries, while Kerala claims a high research output despite a low level of academic collaboration.

Another focus of research on collaboration is the factors or criteria that render it possible, including individual characteristics. For example, Wang et al. (2009) posit that the level of social capital determines the likelihood of collaboration. Researchers with strong forms of social capital (e.g., working at a prestigious university, having a high-quality degree) are more likely to receive invitations to or initiate collaboration. Wang et al. also highlight language proficiency as an example of social capital

that expands opportunities for collaboration. However, Lee and Bozeman (2005) contend that high levels of research productivity fuel collaboration. They attribute the frequency of academic collaborations to reputation in terms of the quality of an individual's research output.

Collaboration is also contingent on structural factors. Powell (1956) was among the first scholars to highlight the increasing complexity of scientific disciplines as driving academic collaboration. These fields of study are becoming increasingly specialised, differentiated into sub-fields and disciplines, and interconnected. Collaboration thus becomes a crucial means to research the totality of the aspects connected to a single area of study. Scholars from different specialties pool their scientific skills to research a specific subject and co-construct knowledge. Luukonnen et al. (1992) also note that collaboration is dependent on the structure of each discipline. For example, the experimental sciences are more likely to encourage collaboration than non-experimental disciplines. Omenn (2006) asserts that collaboration reduces redundancy as well as duplication in research as research questions become more complex and call for command of several knowledge domains. Collaboration encourages researchers to make unique contributions to the research process.

The literature also highlights the ethical dimensions of collaboration. For example, Obamba and Mwema (2009) note that transnational organisations that promote collaboration between the Global South and North frame such as an act of solidarity with developing countries that have historically been excluded from global production and exchange of knowledge. However, several challenges hamper such partnerships. Universities in the Global South generally suffer from a shortage of resources and, in the absence of adequate funding, they might struggle to sustain partnerships and remain on an equal footing with their northern counterparts. Indeed, many scholars (e.g., Canto and Hannah, 2001; Maselli et al., 2006; Gutierrez, 2008; Obamba and Mwema, 2009) assert that North-South partnerships are inherently one-sided by design and typically favour the needs and interests of the North.

Governments and other organisations have adopted various strategies to address these challenges. The French government has used its network of Institute de recherche pour le développement [Research Institute for Development (IRD)] offices in Africa, Latin America, and Asia to

tie funding to the participation of local scholars who might otherwise not have the level of resources and other forms of capital (e.g., social networks) required to join international collaborative academic initiatives. The European Union launched a programme aimed at funding research in Africa in the 1990s, and the Carnegie Corporation based in New York offers research grants to bridge the research gap between the North and South.

Ethical considerations have also prompted African scholars based in the Global North to collaborate with scholars in their home countries where local resources supported their education and contributed to their success (Gueye, 2018; Gueye, Okyerefo, Diedhiou, and Adamnesh, 2019). Collaboration with scholars based in Africa is thus regarded by the African diaspora as a moral duty.

Finally, distance, measured in varied ways, can encourage or discourage collaboration between organisations. Abramo et al. (2009) note that collaboration between Italian universities and Italian enterprises "decreases with increasing [physical] distance" between them. Kabo et al. (2014) consider another aspect of distance and examine the extent to which architectural design impedes or encourages collaboration within the same research organisation. Revising the concept of "functional proximity", they invite us to distinguish between what is referred to as obstructive distance and open distance, rather than understanding distance only in metric terms.

Obstructive distance refers to the isolation of people who work in separate spaces. People may work nearby, but they are distant from one another because they are separated by physical barriers such as walls and doors. Open distance spaces connect people by omitting physical barriers that obstruct the visibility of others. Kabo et al. argue that an open architectural layout encourages casual contact and translates to a "functional proximity", which is conducive to the initiation and success of collaboration.

While these understandings of distance are important to consider in a discussion on academic collaboration, we adopt a more inclusive definition of distance along the lines of Zitt, Bassecoulard, and Okubo (2000) who introduce the notion of index affinity and frame distance in physical, cultural, historical, and ideological terms. Thus, a country may be far from or in proximity to another depending on a myriad of factors such

as physical distance, but also historical and cultural ties, or lack thereof. Therefore, we understand distance as more of a cultural concept that goes beyond but does not exclude physical measurement. We conceive of it as the degree of ties between countries or regions. A shared language, history (using colonisation or ersatz thereof such as occupation), border, and ideology are conducive to the development of affinity between two countries. Such commonalities may even explain the proximity of two countries even when they are physically far apart. In this way, shared characteristics may be a stronger predictor of academic collaboration than physical distance.

Method

To answer the research questions, we used bibliometric data on collaborations among, within, and involving the three sub-continents of Latin America, sub-Saharan Africa, and East Asia. For each sub-continent, we gathered data from two sources, a local database, and Scopus. The local databases are the Scientific Electronic Library Online (SciELO, a popular journal index in Latin America, especially in the social sciences and humanities), the Korean Citation Index (KCI) (For a brief presentation on SciELO and KCI, see Alexander Maz-Machado, Bibiani Munez-Nungo, David Gutiérrez-Rubio and Carmen Leon-Mantero (2020)) and Codesria, respectively, for Latin America, Korea, and sub-Saharan Africa. Codesria is a Pan-African research institution founded in 1973 whose mission is to revitalise social science and humanities research in Africa and multiply the creation of publishing outlets to showcase this research. It is also a strong advocate for Africa/Africa and South/South collaboration through workshops, research grants, and the creation of journals.

We applied several inclusion/exclusion criteria during data collection. The period covered spans 2013 to 2018. Only peer-reviewed journals in the social sciences were considered. Readers should be aware of the risk of duplication in our data compilation. Indeed, some articles could be counted twice or more when they are co-authored by scholars based on more than two sub-continents. As a result, the article will appear as co-authored, for instance, by Africa-based and Latin-America-based academics, but also by Africa-based and Europe-based academics.

A brief methodological note on the concept of the Global South and Global North is warranted. The concepts of North and South have become

contentious in the social sciences (Klob, 2017). A traditional conception of the South is based on geography. Countries within Europe and North America constitute the North, and those outside are referred to as the South. However, this traditional view is increasingly challenged (Rigg, 2015). For some scholars, the South is less defined by geography than by a country's position in the hierarchy of epistemological domination/subordination. According to this view, the world is divided into periphery and core countries with the latter having the highest academic reputation. This framework is supported by Santos (2009; 2016; 2018) as well as Santos, Nunes and Meneses (2008) and Santos and Meneses (2019) who challenge the traditional understanding of the Global South/North and invite us to consider, for example, Portugal, Spain or Italy as countries of the Global South even though they were colonial powers in Africa, Asia, and Latin America. Although these countries were preeminent several centuries ago, they regard them as having an academically inferior position in the hierarchy of epistemological domination/subordination.

While emergent definitional understandings of the Global North/South are salient to gain deeper insights into the power dynamics that define cross-national academic collaborations, we retain a concept wherein the notions of geography, economic emergence, and inclusion in worldwide-decision making (in forums such as the G7 summit) together define the South, notwithstanding its limitations. Although Portugal, Spain, and Italy have a lower status than most Western European countries, they participate in the colonial enterprise as former colonial empires and reap the benefits of being part of Europe. Indeed, the euphemism of "colonial complicity" advanced by Keskinen et al. (2009) or the characterisation of "colonialism without colonies" proposed by Osterhammel (2010) to describe some European countries, including the Scandinavian countries, does not entirely grasp the identity of these three countries that were colonial powers and are part of a dominant European Union. Instead, a reductive and classical conception of the South – with an emphasis on geographical location, subordinated historical position in global geopolitics, and emerging economies (Connell, 2007) – is deployed here through a synecdochic conception of this category as encompassing Latin America, sub-Saharan Africa, and East Asia.

The inclusion of Korea in the Global South also warrants explanation, due to its higher economic standing compared to Latin American and sub-

Saharan African countries. Its inclusion is mainly justified by its historical trajectory and in particular its history as a colonised and occupied country. Korea was colonised by Japan in the 19th century and occupied by a US military government following Japanese rule. While the cultural and historical heritage that Korea shares with Japan warrants brief discussion in this article on patterns of academic collaboration, we focus our discussion on the cultural affinity between Korea and the US, and its impact on academic collaboration. Under US control and with financial assistance, Korea has undergone profound cultural restructuring, particularly in the academic sphere. The US academic culture has pervaded Korea's higher education system, resulting in strong ties between the countries' academic systems that remain evident today.

While all Latin American and sub-Saharan African countries are considered here, Korea is the only East Asian country included. This is certainly a limitation, which is in part explained by our lack of resources and time. However, the focus on Korea makes sense. Firstly, as our findings confirm, Korea is a suitable country to test our major argument on historical proximity's contribution to international collaboration considering the high level of co-publications by Korea-based academics. Secondly, Korea meets our criterion for inclusion as a Global South country because of its history of subjugation by Japan, not to mention its historical occupation by the US military government.

Diversity and Inequality in the Global South's Collaborative Dynamics

The analysis of research production and collaboration in Latin American and African countries, and Korea from 2013 to 2018 reveals a diverse pattern of co-publications between the three sub-continents. Our South America-based scholars report 98 705 co-authored publications (two or more authors) while the total number of co-publications reported by Africa- and Korea-based academics is 18 304 and 7 136, respectively.

When considering the combined data (i.e., the local database and Scopus), the distribution of co-publications reveals two key characteristics. On the one hand, across all regions, we observe a higher representation of co-authored articles between scholars based in the same country or region than articles co-authored between local and foreign scholars. In the case of sub-Saharan Africa, co-authored articles by local scholars account for 52% of the total number of academic collaborations. In Korea and Latin America, this proportion is roughly 62% and 87%, respectively. These numbers demonstrate that the region or country is still the primary arena of academic collaboration in the case of most Global South academic communities. We cautiously assume that Korea is representative of many if not most countries in Asia in terms of dominant patterns of academic collaboration.

The above patterns of data may be better understood through the lens of Wang et al.'s (2007) distinction between "collaboration cosmopolitanism" and "collaboration localism". Inspired by Gouldner's (1957) article on social roles, Wang et al. explain that "collaboration cosmopolitanism" refers to the inclination to build research partnerships with scholars outside of one's immediate environment, those located abroad. "Collaboration localism," describes the inclination to collaborate with another researcher located in the immediate environment. The authors further explain that "collaboration cosmopolitanism" is more common among scholars with more potent forms of social capital. They find that foreign-born students manifest a lower level of "collaboration cosmopolitanism" than their native-born peers, suggesting that personal ties outside one's comfort zone, which a relatively high level of acquisition of a new language translates to, is part of social capital.

Our understanding is that many scholars in Latin America, sub-Saharan Africa, and East Asia may not possess the mainstream social capital required or desired to facilitate research collaborations with their foreign counterparts. They have a collaboration localism orientation to research. Said differently, there is a sociocultural discontinuity (i.e., a disconnect between groups based on the forms of social capital they possess) or the absence of a collective social identity between scholars of these three regions and academics based in the Global North.

An example of sociocultural discontinuity can be found in Canto and Hannah's (2001) study on a research project linking Brazil and the UK. The authors show that while "the aggregate number of publications achieved by both groups appear to have increased significantly as a result of this link, none were co-authored by members of both groups" (Canto and Hannah, 2001, p. 36). They explain this finding by pointing to a linguistic divide: "The British participants were unable to speak Portuguese, and this prevented them from contributing directly to the Brazilian postgraduate course linked to the project" (ibid).

Wang et al.'s (2007) theoretical framework can also be applied to understand the research patterns of Global North scholars. Academics

in the North also have a collaboration localism orientation; however, the degree to which each sub-continent exhibits such orientation is the point of interrogation. Indeed, Natanson and Gingras (2009:631) show that "Western social scientists tend to collaborate primarily with their national or regional counterparts who work on the same topic," and perhaps possess the same forms of social capital. Other scholars have noted that US academics are attracted to other US academics because of America's hegemonic stature. The rate of collaboration between US-based scholars and peers located in the US is nearly twice that between US and non-US-based researchers.

The pattern of collaboration in the Global South provisionally confirms that physical distance is as or more important than historical and cultural distance as a factor in the feasibility of collaboration. Engaging in research with colleagues in the same country or on the same sub-continent indeed serves as evidence of the connection between distance and collaboration (Zitt, Bassecoulard and Okubo, 2000; Abramo et al., 2009). Our data show that as distance decreases, the likelihood of academic collaboration increases, and this may be ascribed to the possible connection between distance and social capital. As distance decreases, there may be a greater likelihood that two countries share the same forms of social capital, especially in terms of language fluency. However, Guzmán-Valenzuela et al. (2022) show that in Latin America the proportion of co-publications is higher among scholars within the same country. At the same time, they note that the level of collaboration between scholars based in two or more different Latin American countries is lower than that between Latin-America-based scholars and colleagues outside this sub-continent. In a sense, their study offers evidence of physical proximity's contribution to collaboration, as it refutes this contribution. The study was based on data culled from the core collection of Web of Science, in addition to SciELO, and covers the period 2002-2018, whereas our research is based on data collected from Scopus. Besides the use of different databases, the different findings could be explained by the conceptual delimitation of the social sciences, which in certain databanks would include disciplines that others would exclude.

Furthermore, distance when understood as historical and cultural ties explains the pattern of collaborations. Latin America, sub-Saharan Africa, and East Asia largely consist of nations that experienced subordination

under colonial powers. In the former two sub-continents, the limited linguistic diversity – with Spanish and Portuguese as the two official languages in Latin America, and French, English, and Portuguese predominant in sub-Saharan Africa – is due to their colonisation by Spain, and Portugal, France, and Britain. This colonial experience, with shared language as an outcome, may explain the cultural affinity developed among scholars based in the same sub-continent.

An accurate calculation of the extent to which linguistic affinity determines collaboration would probably require further data. However, our preliminary work suggests a correlation between cultural proximity and collaboration.

America's hegemony versus Europe's colonial kinship

Comparing the three regions reveals a certain dualism, specifically for the pattern of academic collaborations with foreign counterparts. In sub-Saharan Africa, co-authorship with European scholars is the second most common form of collaboration (5.7%) following intra-regional collaborations, while Latin American academics' collaboration with their European counterparts, accounts for 18%. Collaboration with the US is slightly lower, amounting to 7.5% of the total number of co-authored papers by Latin American scholars, and roughly 5.5% of those by sub-Saharan African researchers. In the case of Korea, the pattern of collaboration is different. Whereas the share of collaboration with Europe is approximately 5.4%, the proportion of collaboration with the US is significantly higher at 34.7%.

Comparison of these differential proportions reinforces the relevance of the theory of cultural distance. The differential patterns of academic international collaborations (Latin America and sub-Saharan Africa have more academic collaborations with Europe than the US, while the opposite is true for Korea) can be ascribed to cultural affinity/matching versus cultural dissimilarity/discontinuity. Latin America and sub-Saharan Africa share a cultural identity with Europe in large part because of their colonial ties. Zitt, Bassecoulard and Okubo (2000) provide evidence that supports this view. Their comparison of the collaboration dynamics of 30 major scientific countries notes that French researchers were less drawn to Japanese colleagues for collaboration than they were to their peers in former French colonies in Africa. This is the case notwithstanding the

fact that Japan and France have a similar academic reputation. Arguably, cultural affinity, a product of colonialism passed down by diverse political and cultural strategies, explains the prevalence of former Francophone colonies over Japan in France's network of collaboration.

A more specific example of how colonial ties inform collaboration is provided by Guzmán-Valenzuela et al. (2022) who found that collaboration among social scientists in Latin America and Spain is at especially high levels and has grown over time. A common language (Spanish) is thus important in this case. Latin American scholars who are eager to enhance their international reputation are likely to seek publication partners among European colleagues who speak the same language (Guzmán-Valenzuela et al., 2022).

Colonial ties, represented in ways besides language, may also explain the disproportionate share of collaborations between Europe and the two regions of Latin America and sub-Saharan Africa. For example, European-funded and -led research networks have been established in former European colonies to support local research and encourage collaboration between Southern scholars and European colleagues. The French Institut de Recherche pour le Développement (IRD) is one such example. Formerly known as the Office de Recherche Scientifique et Technique d'outre mer (ORSTOM), IRD is a colonial-era organisation with dozens of offices mainly scattered in France's former colonies (i.e., Africa and Latin America). It disburses funding on condition that local scholars participate in research projects (Obamba, 2009). It is our understanding that organisations like the IRD and their presence in former colonies drive the high number of academic collaborations between European countries and former colonies.

In Korea's case, the disproportionately higher share of collaborations with the US may also be explained by cultural distance/affinity (as well as dependency theory). Korea's cultural affinity to the US is based on a long history of alliance/assistance, especially in the area of education.

The US' involvement in Korea grew after the Second World War, beginning with the temporary installment of the United States Army Military Government in Korea (USAMGIK). The USAMGIK immediately effected a plan of nation-building with a focus on uprooting Japanese imperialist elements from the country, not to mention containing the threat of communist ideology in the eastern part of Asia (Kyu Lee, 2006). As Kyu Lee points out, it "brought about a marked improvement

in contemporary Korean higher education, by introducing American educational philosophy, administration, and culture". The US supplied Korea with professors who would take charge of restructuring its higher education system.

While US educational ideologies were entering the nation, another phenomenon that is related to the discussion at hand can be observed, the exodus of Korean immigrants to the US. For most of the period from 1960 to 2015, Korea was among the top five sources of the US' international student population. In 2015, it was third among the top sending countries. Furthermore, Korea ranked third among the countries, following China and India, whose nationals had earned a doctorate in non-science and engineering disciplines from a US university between 2005 and 2015. This is a point to consider, especially given the small size of Korea's population compared to other countries whose citizens are awarded US degrees.

Furthermore, a high and growing number of academic and other Korean leaders holds a degree from the US. Cho (2010) shows that between the 1930s and the 1960s, the proportion of Korean faculty members who received their PhD from a Korean University declined from 30% to less than 10%, while those who received the same degree from a university abroad other than the US also decreased from about 35% to approximately 18%. In contrast, the proportion of Korean faculty with a PhD from a US institution grew from 35% in the 1930s to approximately 75% in the 1960s. This indicates growing ties between the US and Korea, a historical contingency that has translated into robust academic cooperation.

This point may need clarification in the cases of Latin America and Africa, which have higher rates of academic collaboration with former colonial powers. While linguistic continuity partly explains this, the Japan-Korea relationship is an example where linguistic discontinuity may explain the lower levels of collaboration despite colonisation. The key point is that Korea seems to have developed a stronger cultural affinity to the US than Japan, considering the various lines of reasoning we present in this article.

Whither South-South collaboration?

We observed a low level of co-authorship in Latin America, Africa, and Korea. The proportion of articles co-published by Africa-based researchers and their peers in Latin America stands at 0.5%. This is an aggregate of

data from Scopus and Codesria. Africa-Korea academic collaboration is also low at roughly 1.7% of the total number of co-authored articles. Aggregated data from SciELO and Scopus highlights an even lower rate of collaboration between Africa-based and Latin America-based scholars at approximately 0.01%. Similarly, according to SciELO and Scopus, Latin America-Asia co-authored articles make up 0.2%. Finally, the data aggregated from the Korean Citation Index and Scopus confirms the low level of South-South collaborations compared to South-North. Collaborations between Korean-based researchers in the social sciences and humanities and their counterparts in Africa stand at 0.2%, with those between Korea and Latin America at 0.3%.

This data suggests that there is room to enhance South-South collaborations. A step in the right direction might be to interrogate and critically frame the current power dynamics shaping academic collaboration patterns. Former colonial powers or forces of occupation continue to claim the largest share of research collaborative initiatives with the South. In sub-Saharan Africa, three-quarters of collaborations with European scholars involve France and UK-based British academics. Since the bulk of academic institutions in sub-Saharan Africa is located in former French and British colonies, this trend should not be surprising.

The theory of cultural distance/affinity is further confirmed on the basis that collaborations between former colonies and colonial powers are only outnumbered by local or intra-national collaborations. Koreans are more inclined to co-publish with US-based academics than scholars based in other Asian countries as well as those in other South regions. The same can be said of sub-Saharan Africa and Latin America. Scholars based in these regions engage their European colleagues (France, the UK, and Spain) in research more frequently than scholars in different South countries including those on the same continent.

Conclusion

The current publication dynamics of Global South scholars do not reflect the political discourse of South-South collaboration. In their search for academic partnerships, scholars in the Global South are looking within their own country or towards the US or Europe. Only occasionally do they consider colleagues from another Global South country as a research partner.

In explaining these weak transcontinental and intracontinental collaborations, the cultural distance effect needs to be taken into account. Latin Americans, sub-Saharan Africans, and East Asians occupy a common space of relative subordination. However, these countries have weak historical ties and, while they may have a cultural affinity with one another in some cases, closer inspection reveals that this is mediated by Northern powers. Thus, the irony lies in a Western power acting as a broker among Global South countries that are critical of the epistemological hegemony of the West. If the term 'Global South' conveys a political identity, it is still overshadowed by the colonially-driven cultural affinity between the Global South and European or US imperial blocks.

The question of US hegemony and academic influence on the world stage is a further point for consideration. To what extent does US academic influence determine the internationalisation strategies of countries in the South? If this power alone was decisive, a potential scenario is possible where Latin American and sub-Saharan African scholars would co-publish more with US scholars than those based in countries like France and Spain, whose academic stature has been overshadowed by the US since the end of the Second World War. This is, however, not the case and we believe that linguistic commonality, historical (colonial) relations of dependency, and the ongoing politics of cooperation likely nurture European countries' pre-eminence in transcontinental collaborators' networks. However, one could argue that since collaboration, like the tango, requires two partners, Europe's pre-eminence in the networks of transcontinental collaborators for researchers located in sub-Saharan Africa and Latin America could simply be the result of US-based academics having less interest in partnering with colleagues in these two regions than in Korea. It could also be argued that the proportion of Latin America and sub-Saharan Africa-based academics that trained in the US is significantly lower than that of Korea-based academics who earned their PhD in the US. Full-time doctoral training is an opportunity to build social capital, as candidates interact regularly with peers and professors at the same institution. The likelihood of collaboration increases when scholars occupy the same space, and as foreign students become familiar with the socio-cultural norms defining the academic cultures of their universities and programmes.

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Mobility for Academic Collaboration Post-COVID-19: Rebuilding Towards More Equitable Networks

Ibrahim Oanda, Jae-Eun Jon and Gerardo L. Blanco

Abstract

In-person mobility has traditionally been taken for granted as an element of academic collaboration. The COVID-19 pandemic disrupted this status quo, introducing new challenges, especially across Africa, Asia and Latin America, where local economies and higher education systems have been disproportionately affected, exacerbating existing inequities. Low and unequal vaccination rates in these regions will likely continue to influence academic mobility. Given that international travel is set to remain complicated and expensive, African, Asian and Latin American academics' preference for North America and Europe as destinations for mobility is likely to shift, with new academic mobility ecosystems emerging. Indeed, strong institutions and countries in these regions are becoming new hubs for intra-regional mobility and collaboration. The future of academic mobility and collaboration in Africa, Asia and Latin America is thus likely to include alternative destinations and virtual mobility, with the possibility of lower levels of international cooperation as the perceived value of mobility comes into question. These changes call for creative, long-term plans by institutions as well as governments. They present opportunities to promote mobility within regions, as well as South-South mobility in order to increase higher education's social relevance.

Résumé

La mobilité en personne est traditionnellement tenue pour acquise en tant qu'élément de la collaboration universitaire. La pandémie de COVID-19 a perturbé ce statu quo, introduisant de nouveaux défis, en

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particulier en Afrique, en Asie et en Amérique latine, où les économies locales et les systèmes d'enseignement supérieur ont été touchés de manière disproportionnée, exacerbant les inégalités existantes. Des taux de vaccination faibles et inégaux dans ces régions continueront probablement d'influencer la mobilité universitaire. Étant donné que les voyages internationaux devraient rester compliqués et coûteux, la préférence des universitaires africains, asiatiques et latino-américains pour l'Amérique du Nord et l'Europe en tant que destinations de mobilité est susceptible de changer, avec l'émergence de nouveaux écosystèmes de mobilité universitaire. En effet, des institutions et des pays solides dans ces régions deviennent de nouveaux pôles de mobilité et de collaboration intrarégionales. L'avenir de la mobilité universitaire et de la collaboration en Afrique, en Asie et en Amérique latine est donc susceptible d'inclure des destinations alternatives et la mobilité virtuelle, avec la possibilité de niveaux inférieurs de coopération internationale à mesure que la valeur perçue de la mobilité est remise en question. Ces changements exigent des plans créatifs à long terme de la part des institutions ainsi que des gouvernements. Ils présentent des opportunités pour promouvoir la mobilité au sein des régions, ainsi que la mobilité Sud-Sud afin d'accroître la pertinence sociale de l'enseignement supérieur.

Introduction

Mobility for academic collaboration in the post-COVID-19 scenario can best be understood through a series of paradoxes. The first is that, while the pandemic provides the perfect example of a problem for which international academic collaboration is absolutely necessary, it imposes disruptive and extremely complex conditions. Secondly, we argue that, after the initial brief interruption, as researchers became aware of the long-term nature of the pandemic, research activity in all fields of study resumed, increasing input and international collaboration, but without physical mobility. A third paradox is that the pandemic exacerbated geopolitical tensions and academics seeking to collaborate across borders will need to navigate an even more complicated set of regulations. As a result, the paradoxes of mobility for research collaboration impact its (a) significance, (b) volume output, and (c) conditions.

There are likely more paradoxes related to higher education (HE) during the pandemic, but these seem to be the most significant for international collaboration for research and scholarship. Before going further, it is important to clarify how we use the term post-pandemic. Akin to Loomba's (2007) use of the term postcolonialism, in which the prefix 'post-' does not signify what happens after the end of colonialism given that it does not end but mutates, in this article, *post-COVID* or *post-pandemic* signifies everything that has occurred and will occur since the start of the pandemic, because it will likely continue to shape HE in the long term.

Academic Collaboration: More Needed, yet More Complex

The first paradox for research collaboration post-pandemic involves its significance. COVID-19 illustrates how important research collaboration is, but also how difficult it is to come by. Some of the modes of collaboration that academics have come to take for granted involve physical mobility. The inability to gather physically, not only across borders, but even among local research teams, imposed serious complications on academic collaboration. Traditional spaces to offer and receive feedback on ongoing research, such as conferences and other academic meetings, and writing retreats that have been central to collaborative work (Altbach and de Wit, 2021) were suddenly unavailable. The disruption of academic collaboration in the early months of the pandemic was characterised as an "avalanche of cancellations" (Blanco and de Wit, 2020, p. 11). The remaining obstacles to mobility are too many to enumerate; they range from travel bans to canceled flight routes. Adding irony to the paradox is that one of the first super-spreader events of COVID-19 was a medical conference in Boston (Stockman and Barker, 2020).

According to the World Health Organization (WHO) (2022), less than 20% of the population is fully vaccinated across large areas of Africa. The situation in Latin America and Asia appears to be better, but there are significant differences in these regions. For instance, in large portions of south and southeast Asia, only 40-59% of the adult population is fully vaccinated. According to the United States (US) Centers for Disease Control and Prevention (2022), large portions of Africa, Asia and Latin America remain in the 'very high' or 'high' infection range and travel is therefore discouraged. In addition to government restrictions, national and local higher education institutions (HEIs) have imposed restrictions that limit researchers' ability to travel internationally. Furthermore, a

form of vaccine nationalism has taken shape that is manifested not only in wealthy countries hoarding vaccines, but also in the lack of mutual recognition of vaccinations.

Against this background of increased complexity, academic collaboration has also become more pressing. The most important issues of our time are "wicked problems" (Rittel and Webber, 1973, p. 160) because they are particularly difficult to define and are often symptomatic of other problems. For instance, climate change, geopolitical conflict, and the COVID-19 pandemic are some of the many defining problems of our time that universities seek to address. While research collaboration is necessary to address these existential challenges, they render such collaboration, especially that based on mobility, difficult and, in some cases, impossible. Thus, at the present juncture, internationalisation of HE requires the ability to creatively interrupt vicious cycles. While technology has a role to play when used appropriately, HE decision makers would do well to remember that access to high-speed Internet services or even to a reliable power source is not even around the world.

Reimagining, not just Resuming Collaboration

The second paradox of mobility for research collaboration involves volume output. After the initial shock and the existential threat posed by the pandemic, the academic endeavour continued to chug along, in some cases without interruption. As Smith (2020) argues, academic *webinars* seem to have played a significant role in this regard due to high demand for connections within disciplinary communities. Despite the uneven distribution of vaccines and responses to the pandemic, international mobility is once again possible among many countries. However, mobility for research collaboration has not yet returned to *normal*. Instead, the emergent forms of collaboration introduced over the past two years, such as virtual meetings, have continued to advance. Among these trends, the push for open-access publications (Lee and Haupt, 2021) is prominent, perhaps signaling a turn toward open science. Notwithstanding growing interest in open-access, opposing pressures are also present, signaling possible reduction in philanthropic support for research and a more utilitarian approach to research conducted in universities (Croucher and Locke, 2020). Increased inequality will be the likely result of these challenges (de Wit and Altbach, 2021; Mok et al., 2021). Academic

meetings illustrate these gaps. While hybrid conferences are becoming the new norm, to what extent will virtual participants be full participants, even if not equal, to those attending in person?

It seems evident that research communities are bracing themselves for increased inequality, decreased availability of research funding, and additional pressure to produce results. The combination of these trends presents the risk of focusing on short-term, more transactional partnerships, rather than deeper, more sustained collaboration that is based on trust. Furthermore, while international travel is once again possible among many countries, online and regional mobility for research collaboration continue to be the norm beyond the initial emergency response to the pandemic.

Collaboration and Tense Geopolitics

The future of research collaboration involves not only new modalities for mobility, but in many cases the ability to work together under deteriorating conditions. While the term *collaboration* tends to elicit favourable responses in the academic community, that of *collaborator* is associated with espionage reminiscent of the Cold War (Schrecker, 2010). Even before the onset of the COVID-19 pandemic, tensions between the most productive and mutually interconnected research systems in the world—China and the US—were at boiling point. The US government was hostile towards the presence of Chinese scholars and cultural centres (e.g., Confucius Institutes) and used the risk of espionage as a justification, and Chinese American scholars were investigated under the so-called China initiative (Lee, 2019). Since the start of the pandemic, these tensions have ebbed and flowed, but it provided additional reasons to suspect research collaboration between China and the US. These tensions are not limited to academic collaborations between the US and China. Reminiscent of the Cold War, there is a sense in which academic collaborations between the US and African institutions, for example, are farmed in the context of countering Chinese geopolitical influence in Africa, while those between China and Africa are seen through the lens of a new 'Confucius imperialism'. This framing tends to overshadow the African interests that such research collaborations should be intended to serve.

New geopolitical tensions have emerged in the current post-COVID environment. Despite vaccine diplomacy, two large HE systems—

China and Russia—are ostracised within Western academic circles. Russia's claim to have developed the first effective COVID-19 vaccine and its vaccines as a whole were received with skepticism within its own borders and around the world. Under current international sanctions and the letter penned by Russian rectors supporting aggression against Ukraine, Russian universities are isolated in ways that were previously unimaginable. After politicising vaccine distribution in competition with the West, Chinese universities remain isolated due to popular perceptions of the country not only as the origin, but also the originator, of the virus that causes COVID-19. While China, including the Hong Kong SAR, continues to pursue a COVID-zero policy, the country remains largely off limits to foreign academics even if Chinese scholars have resumed some levels of mobility. These examples illustrate the pandemic's geopolitical impact on research collaboration. For instance, in Asia, Myanmar has been largely cut off from the global academic community since the start of the pandemic (Lall, 2021), while in Latin America and the Caribbean, Bolivia, Cuba and Venezuela are consistently excluded from mobility and research cooperation.

The following sections provide a more detailed picture of the regions covered in the 2022 Higher Education Forum on Africa, Asia and Latin America.

Perspectives from Africa

Trends in academic mobility in Africa before COVID-19 were framed in the context of capacity deficits (the need to broaden student access and build academics' research capacity). An analysis of the scenarios likely to emerge post-COVID-19 should therefore proceed from the pandemic's likely impact in expanding access and creating improved environments to attract altruistic research partnerships. Even before the pandemic, African universities were in financial distress due to underperforming national economies, and shocks occasioned by the 2008 global recession. While public expenditure on HE as a percentage of Gross Domestic Product (GDP) grew globally from 2006 to 2013, followed by a decline, sub-Saharan Africa experienced the lowest growth, and after 2013, HE in the region confronted the most difficulty in attracting resources (HESA, 2022). According to UNESCO (2015), during the period 2009 to 2015, public expenditure on tertiary education as a percentage of total public expenditure on education fell in 34 countries, including 11 in sub-Saharan Africa.

By 2018, a year before the COVID-19 outbreak, several countries were facing constraints and budget cuts with little public funding, yet pressure to expand access continued unabated. For example, UNESCO data (2021) shows that by 2018, public expenditure on HE as a percentage of GDP among the 13 members of the Economic Community of West African States (ECOWAS) was on a downward trend, with Sierra Leone having the highest expenditure at 3.3%; followed by Burkina Faso (1.8%) and Senegal (1.5%), while Gambia, Guinea and Liberia allocated 0.5% or less. In East Africa, 2.3%, 0.7%, 0.6% and 0.3% of GDP was allocated to HE by Ethiopia, Kenya, Rwanda, and Uganda, respectively (UNESCO, 2021).

The COVID-19 pandemic therefore occurred at a time when institutions were already struggling to attract resources and student access was expanding. Furthermore, the sector was one of the first to be hit by funding cuts to support government responses to COVID-19. In Kenya, for example, the onset of COVID-19 saw the Commission for University Education diverting 272 million Kenyan shillings (US$2.5 million) to efforts to prevent the spread of the virus. The country is also proposing to double public and private universities' tuition fees (World Bank, 2020). South Africa's HE budgets were reduced by 8% for the 2020/2021 financial year (Naidu and Dell, 2020). With the fastest growth in post-secondary students, forecast to reach 22 million by 2027 (7% of the global total), and decreasing investment in expanding and improving the quality of the HE system, African countries are likely to remain a growth market for international institutions, with an increasing number of students outbound.

Likely Student Mobility Scenarios

Given decreasing investment in HE, and the likely persistence of the economic recession triggered by COVID-19 as well as an emerging debt crisis, Africa is likely to continue producing an increasing number of internationally mobile students. The gross tertiary education enrolment ratio remains low (9.4%, in 2020, well below the global average of 38%) (World Bank, 2020). On average, 60% of the population in sub-Saharan Africa is below the age of 24 and constrained expansion of HE is likely to result in three scenarios.

Firstly, traditional outbound student mobility is likely to increase, with strong markets creating incentives to tap the wealth of the middle class in Africa. Recent studies on student mobility trends and such mobility's capacity to leverage public funding for HE in countries with strong tertiary education systems (see for example, Page, 2021; Campus France, 2020) suggest that it is increasingly regarded as a strategy to boost funding in host countries but also as a soft power strategy. For example, France's *Bienvenue en France* aims to outdo the country's competitors in Europe by adopting a different model of internationalisation of institutions, services for foreign students, and communication (Campus France, 2020). Countries like the US, UK and Australia are designing policies such as value-added bonuses (four-year work visas upon completion of studies, preference in obtaining British citizenship, etc.) with a view to mitigating declining HE funding (Times Higher Education, April 25, 2020). This is bad news for African countries and their HEIs. The US Department of State and Homeland Security's recently announced strategy to attract international STEM scholars, students, researchers, and experts should be viewed in the same light.

The combination of strong HE systems' adoption of policies to attract international students and declining investment in HE in developing countries, especially in Africa, means that the push effect might be greater than the motivation to stay, especially for students from middle class backgrounds. Student mobility is accompanied by a movement of resources and cultural ideas. In the context of HEIs in Africa, local institutions will lose the fees that would be paid by middle-class students. Increased mobility from Africa therefore denies the continent's HEIs resources that they are in desperate need of.

The second scenario concerns virtual alternatives to physical mobility. The initial response to COVID-19 was to suspend travel, including student travel which meant a loss of learning time and resources. There were widespread perceptions that this disproportionately affected African students who were not permitted to travel even when evidence of prevalence was not established. Data on African student travel shows that the number of students from Africa traveling to the US, for example, decreased from a high of 48 679 in the 2019-20 academic year to 45 343 in 2020-21, a drop of 6.85% (Kigotho, 2021). Surveys on African universities' preparedness to embrace digitisation as part of the response to COVID-19 showed that

only 44% had increased virtual mobility and online learning (Koninckx and Burgos, 2021). Indeed, 77% of the institutions responding to a survey by the International Association of Universities in May 2021 indicated they were had totally shut down, with no research or teaching activities (IAU, 2021), the highest percentage at the global level. Furthermore, only 39% of African institutions that responded to the survey indicated having received any support from their government to support the transition to digital modes of teaching and learning, the lowest globally. Thus, African HEIs' transition to digital modes as a strategy to influence the direction of physical mobility remains a work in progress.

The European Union (EU) pledged its support for the digital transformation of African HEIs at the 6th African Union-European Union Summit held in 2022 (Sawahel, 2022). Such partnerships aim to support African institutions through the provision of demand-driven technical assistance as well as knowledge sharing and dialogue. It will be up to African institutions and governments to ensure that such assistance does not end up supporting African students' mobility to hubs and branch campuses of foreign universities on the continent, but promotes expanded access and increases the number of foreign students registering for programmes in African institutions as a form of reciprocal mobility. For example, as part of its strategy to increase the number of inbound students from Africa, France is expanding its educational institutions' offerings abroad in the form of new overseas campuses and joint programmes (Campus France, 2020). Overall, while virtual learning has met with some resistance from students who would prefer to physically relocate, it has enabled African universities to explore strategies to offer it.

Thirdly, with regard to mobility within Africa, regional mobility of students and staff remains strong, but continental mobility is weak due to historical reasons. Prior to the COVID-19 pandemic, 67% of inbound international students in sub-Saharan Africa were intraregional, with 55% studying in a country bordering their own, while only 23% of outwardly mobile African students enrolled in another country within the region (Campus France, 2020). Thus, efforts should be made to encourage student mobility within the continent. However, reciprocity is unlikely to be achieved. Decreasing public funding means that most institutions will not have the capacity to expand and develop quality programmes to attract mobile students. A few countries (South Africa, Kenya, and Ghana)

are likely to remain hubs, but stalled expansion of the system in these countries means that in the medium term, they are likely to focus on meeting national demand for access. Furthermore, African institutions will have to compete for students with foreign providers that are now expanding virtually, as well as new entrants from Asia, especially China and Malaysia.

Academic Mobility and Research Partnerships

Mutually beneficial and reciprocal partnerships and scholar mobility flourish in a context of a healthy HE environment, both resource wise and intellectually. As noted in the previous section, African universities were struggling financially even before the pandemic. The danger of poorly-funded HEIs with decreasing public resources is that the outdated, trickle-down approaches to scientific cooperation inherited from colonial times re-emerge in new ways. Existing partnerships are skewed because ownership of resources translates to intellectual stewardship of projects. It is for this reason that the majority of existing partnerships are characterised by one-way scholar mobility (academics from the North traveling to African institutions). When African academics travel to the North, this is usually for brief periods and is often limited to conference attendance. Virtual conferencing is likely to reduce this form of mobility, with the possibility that those in control of resources will determine when physical travel is necessary.

On the positive side, the travel cessations triggered by COVID-19 and the *vaccine nationalism* that emerged built collaboration among African researchers. Studies show that while scientific knowledge production on the COVID-19 pandemic in Africa was very limited, constituting less than 1% of all published studies worldwide in 2020, African-based scientists produced the vast majority of such research on Africa (Edem et al., 2021). Moreover, studies on the continent's experience of COVID-19 were largely led by Africans and more than 90% of the authors were exclusively affiliated to African institutions or laboratories (Edem et al., 2021). This raises interesting issues in relation to research capacity, partnerships, and the need to promote and deepen research and scholar mobility within the continent. Previously, there would have been a wave of academic mobility to the South to study Africa's experience of COVID-19. Thus, academic mobility should increasingly focus on partnerships that strengthen intra-African mobility, sharing of resources within the continent to strengthen African-based, African-led collaborative research platforms and acknowledgement that even with resource inputs, African academics' contributions to such partnerships should accord them intellectual leadership in these undertakings.

Perspectives from Asia

The Asian region has been responsible for a large portion of international student mobility worldwide, with a strong preference for destinations in North America and Europe. From 2010, Asian communities also strengthened multilateral student mobility within the region, with government-supported programmes such as the AIMS (ASEAN International Mobility for Students) programme and CAMPUS Asia (Collective Action for Mobility Program of University Students in Asia). Both were originally based in the ASEAN region and the East Asian countries (China, Korea, and Japan), respectively, but have recently been extended to include the wider region.

The COVID-19 pandemic hit the international student flow in the Asian region hard, and academic mobility among faculty and researchers either came to a halt or moved online, with variations among countries and HEIs. Nevertheless, this abrupt change, which has lasted longer than anticipated, highlights "the importance of preserving academic mobility" (Huang and Welch, 2021, p. 231). The pandemic also heightened the need for academic collaboration to tackle this global health crisis (Lee and Haupt, 2020, 2021).

While substantial research has been conducted on international student mobility, the literature and data on faculty mobility are insufficient and generally less accurate (Morley et al., 2018). Scholarly studies on academic mobility in HE following the outbreak of the pandemic have largely concentrated on student mobility. Prior to the pandemic, research on academic mobility in the Asian region tended to focus on full-time international faculty (e.g., Huang and Welch, 2021), with the US literature focusing on Asian PhD graduates returning home or remaining in the US (Hu, 2021; Lee and Kim, 2010). Several types of physical mobility for research collaboration can be identified, namely, (1) short-term travel for meetings, conferences, or research activities, (2) long-term stay for sabbatical or research activities, and (3) long-term stay hired at overseas

HEIs, which can be full-time or part-time. COVID-19 impacted all these types of academic mobility, with cancellations, delays, and transitions online. It also pushed faculty to make alternative choices, such as spending their sabbaticals at home, while going abroad was taken for granted prior to the pandemic. One of the few recent works on academic mobility during the pandemic in Asia (Huang, 2021) showed how the pandemic influenced international Japanese faculty's academic and personal lives.

There is a paucity of research on mobility for academic collaboration in Asia related to COVID-19, and virtual mobility for such collaboration in the region has rarely been documented. In response to this gap and the importance of academic collaboration in the pandemic era, this section highlights several features to understand mobility for academic collaboration in Asia. It should, however, be noted that this does not cover the entire region, especially given that there is limited information on academic mobility and collaboration.

Post-pandemic academic collaboration: Intraregional interconnectivity in Asia

Globally, COVID-19 resulted in travel bans, closed campuses, and severe interruption of international research activities and mobility (UNESCO, 2021). Academic collaboration between China and the US for research on COVID-19 boomed or remained strong during the initial stages of the pandemic (Fry, Cai, Zhang, and Wagner, 2020; Lee and Haupt, 2020). However, the level of international collaboration for COVID-19 research subsided as the pandemic persisted (Maher and Van Noorden, 2021). Furthermore, geopolitical tensions between China and the West, particularly the US and Australia, escalated, raising concerns about the negative impact on academic collaboration (Armitage, 2021). However, China intensified its collaborative scientific research with Japan, Korea, Singapore, and India during the pandemic (Liu, 2021). This is a noticeable change because Asian countries tend to collaborate with the US or Europe rather than amongst themselves (Kim and Cho, 2021).

Woon (2021) forecasts that "regional alliances" in Asian HE will be intensified based on human talent, geographical proximity, and efforts to control the spread of COVID-19. For instance, scholars from China, Japan, Korea, Mongolia, and the US that participated in a webinar on the Covid-19 Pandemic: Northeast Asia Regional Cooperation in December 2020 proposed the establishment of an Academic Alliance Against COVID-19 in the East Asian Region. In July 2021, proposals for research collaboration and partnerships to respond to the pandemic were discussed and endorsed at the 11th informal ASEAN Ministerial Meeting on Science, Technology and Innovation.

Virtual mobility for academic collaboration with Asia: Interregional mobility

Asia not only increased intra-regional interconnectivity for academic collaboration during the pandemic, but has also promoted interregional mobility, especially with Europe. For example, the ASEA-UNINET (ASEAN European Academic University Network), which supports bilateral and multilateral research projects among universities from Europe and the ASEAN region, discussed the ASEA-UNINET Virtual Collaboration Project that proposes activities such as sharing "virtual and remote laboratories", "joint supervision of graduate students of each university via [a] virtual environment", and "faculty exchange for remote teaching" (ASEA-UNINET, 2021).

Another example is the International Virtual Academic Collaboration program (IVAC), funded by the DAAD (German Academic Exchange Service) that supports digitally-based teaching and learning, research-oriented pedagogies, and graduate education among students and scholars from Germany and other countries. Several Asian countries participated in this programme, such as the Online Development Studies and Research Community (ODSRC) project between Germany and Japan.

The ASEM (Asia-Europe Meeting)-DUO Fellowship Programme, an exchange programme for faculty and students, supports "virtual or blended mobility" to promote "inclusive and balanced mobility" (Sharma, 2021). According to staff at the Asia-Europe Foundation, blended mobility refers to "new types and forms of delivery to include educators and learners in different locations, time zones and backgrounds", and is expected to address imbalanced mobility in the two regions (Sharma, 2021).

Equitable opportunities for virtual academic mobility in Asia

Inequality among countries in international academic collaboration for research was magnified during the pandemic. However, virtual mobility could help to include those outside the international collaboration network with few resources.

Researchers in "scientific 'periphery'" or lower GDP countries can resort to international collaboration for research (Lee and Haupt, 2021, p. 954). However, a recent study on COVID-19 research confirmed that researchers from developing countries participated less in collaborative publications (Fry et al., 2020). On the other hand, high-income and upper-middle-income countries showed high levels of productivity in such research (UNESCO, 2021). International collaboration for research entails trade-offs between "expertise, funding, resources" and the "search and coordination costs" (Fry et al., 2020). Accordingly, researchers are likely to prefer "known collaborators" (Fry et al., 2020), which could disadvantage those outside the network. Nevertheless, the pandemic motivated researchers to collaborate with those with whom they had not previously worked, with such first-time international collaboration positively associated with the novelty of research (Liu et al., 2021).

These findings imply that inequity can occur within the Asian region between countries at the centre with domestic resources and international networks (e.g., China, Singapore, Japan, Korea) and those at the periphery. However, first-time collaborations can also be facilitated by virtual mobility, which can involve those outside the network with few resources.

In discussing the prospects for post-pandemic Asian HE, Woon (2021) asserts that COVID-19 can provide opportunities for research collaboration. Virtual mobility without time limitations, and the use of virtual laboratories and online platforms could facilitate deeper collaboration (Woon, 2021) and expand access. In other words, the normalisation of virtual collaboration for research could open the door to researchers in Asian countries who may not have been major players in such collaboration prior to the pandemic.

Perspectives from Latin America

Latin America is a vast, diverse, and unequal region; therefore, this section focuses on general trends that are not necessarily applicable to all its countries. Vaccine distribution in the region started later than in the Global North and unfolded with much lower supplies and therefore more slowly. The region is diverse not only in terms of access to resources, but also in governmental responses to the pandemic. Countries like Argentina, Colombia and Peru adopted strict measures that restricted local and international mobility, while the governments of Brazil and Mexico favoured a laxer approach, and even downplayed the severity of the pandemic (Martinez-Valle, 2021). This has significant implications for the prospects of resuming academic mobility for research cooperation within and beyond the region. For example, Cordova et al. (2020) documented the experience of Colombian and Peruvian visiting scholars and the response of their host university in Mexico at the onset of the COVID-19 pandemic. Based on their analysis, they argued that "academic mobility…needs to be specifically included in universities' disaster management procedures" (p. 152). As these and other scholars have indicated, academic mobility for research cooperation can no longer be taken for granted and the changes ushered in as a result of the pandemic will likely be semi-permanent or permanent.

Few empirical studies have explored the pandemic's impact on academic mobility for research collaboration in Latin America. The vast majority of analyses focus on its impact on teaching and learning and the transition to virtual instruction[1]. One of the few available studies (Finardi and Figueredes, 2020) documents the Brazilian HE system's forced transition from large-scale mobility programmes, such as *Science without Borders* and *CAPES-PrInt* that benefit only a very small proportion of the population, to new virtual approaches to internationalisation that are characterised by their own "digital, language and collaboration gaps" (p. 10). These gaps deserve further analysis, because even though virtual mobility has removed some barriers to academic collaboration, deeper imbalances remain. It is therefore important to create new forms of collaboration rather than migrating inequity to a virtual format.

Virtual Mobility for Academic Collaboration: Examples from Latin America

While academic and professional organisations shifted to online modalities during the pandemic (Blanco and de Wit, 2020) and virtual meetings have remained the norm for the past two years, language interpretation is costly and therefore rarely available, and access to reliable high-speed Internet is not equally distributed. Furthermore, just as traditional gender roles rendered academic mobility easier for men, under pandemic conditions, women have been disadvantaged (Kim and Patterson, 2021) in terms of academic productivity and visibility. It stands to reason that these

1 **Several searches were carried out of Google Scholar and SciELO databases in English, Portuguese and Spanish.**

conditions also negatively impact women's ability to engage in virtual collaborative projects. The growing technological, linguistic and cultural barriers underline that virtualisation of academic collaboration is not a panacea, and that thoughtful engagement with these new modalities is required to avoid reproducing old barriers in a new space.

Due to the forced halt of physical mobility for academic collaboration, university networks and consortia in Latin America have become key mechanisms. Post-pandemic, regionalisation and virtual internationalisation were identified as significant trends in academic collaboration in the region (Blanco, 2021). This is evident in the multiple programmes for virtual academic mobility over the past two years. The Inter-American Organization for Higher Education launched *Espacio de Movilidad Virtual en Educación Superior* (e-MOVIES) for reciprocal virtual exchange among Inter-American Organisation for Higher Education (OUI-IOHE) member institutions. While this programme focuses on student exchange, a similar programme by the Organization of Catholic Universities of Latin America and the Caribbean (ODUCAL) includes academic mobility for faculty. The *Americarum Mobilitas* virtual cooperation programme enables the participation of both students and teaching and research faculty members in ODUCAL institutions.

Other examples of virtual mobility include *La Asociación de Universidades Grupo Montevideo*'s (AUGM) programmes for student virtual mobility. Given that graduate education is heavily focused on research, this South American consortium is promoting virtual research cooperation. The ERASMUS-funded project *VAMOS* is a virtual exchange programme that aims to address wicked problems through collaboration between Latin American and European universities. While it focuses on teaching and learning, the programme also seeks to "build capacity for innovative international collaboration" (VAMOS, 2022, p. 2). These examples illustrate the convergence of several trends in Latin America, namely, (a) the emergence of virtual mobility for research cooperation, (b) a shift in focus from North-South schemes that focus on cooperation with the US and Europe to regional cooperation, and (c) the renewed importance of university consortia and formal networks.

Prospects for resuming in-person collaboration in Latin America

In 2021, Colombia was the first country in the Western Hemisphere to reactivate incoming mobility for the Fulbright Program, the US flagship bilateral programme for academic exchange (Fulbright Colombia, 2022). This illustrates the strong impetus within Latin America to resume in-person mobility for academic cooperation. Multiple Colombian universities listed Fulbright Specialist projects and hosted US scholars who conducted activities in-person even while strict sanitary measures were in place. Over the past year, the Fulbright Specialist portal has included projects by universities, government agencies and non-governmental organisations from Ecuador and Peru, in addition to Colombia.

In contrast, Mexico serves as an illustration of the negative impact of slow and inadequate vaccine distribution on academic mobility. Its federal government did not secure a sufficient supply of vaccines approved by the WHO and, instead, accepted unapproved vaccine donations. In order to reopen schools, the education sector—including school teachers and university staff—was deemed a priority for vaccine distribution and was provided with the CanSino COVID-19 vaccine. However, as vaccine requirements are now in place for travel to the US and Europe, and only WHO-approved vaccines are accepted, many Mexican academics are unable to resume mobility. Moreover, as availability of WHO-approved vaccines has increased, these academics cannot access them as they are considered already vaccinated. Argentina, Bolivia, Chile, Ecuador, Guatemala, Honduras, Nicaragua and Paraguay are among the countries in the region that have relied on some vaccines not recognised by the WHO, while booster shots remain out of reach.

Based on the information available, resuming in-person academic mobility for research collaboration is not yet within reach. Truly international conferences are unlikely in the short term. Regionally focused academic meetings and hybrid conferences will likely be the most accessible alternatives while travel restrictions remain in place. This requires the introduction of semi-permanent changes to how mobility for research purposes is conceptualised in the field.

New Directions

The regional analyses presented in this article suggest that the future of mobility for research collaboration is hybrid and assisted by technology, on the one hand, and region-based when in-person, on the other. The examples from Africa, Asia and Latin America illustrate that significant investment has been made to enable academic cooperation through

technology. Given the extent of such investment, this is leading to semi-permanent and permanent changes. In other words, technology-assisted research collaboration at a distance, also known as virtual mobility, is no longer a stopgap, but a more permanent alternative, which is likely to remain in the long term.

While virtual mobility has increased significantly in the past two years, an equally strong impetus exists to return to in-person collaboration as much as possible. The examples in this article provide evidence of a return to physical mobility. Stringent safety measures are likely making academics more judicious and their visits are likely longer. Travelling across the world for a two-day conference will likely become a quaint memory, whereas multi-week visits with multiple purposes and in-country destinations will likely emerge as the *new normal*. It is also likely that the farther apart research teams are located, the more likely they will rely on virtual mobility, while more closely located teams will be more likely to meet in person. What matters, then, is to focus the already depleted and overextended energies of research teams on working as efficiently as possible under the more likely scenario rather than going against the grain, possibly wasting important effort in pursuit of unlikely collaboration scenarios.

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Academic Cooperation between Africa, Asia and Latin America: The Place of diasporas

Ayenachew A. Woldegiyorgis, Lucas Luchilo and Thanh Pham

Abstract

Interest has grown in the role of diaspora in advancing higher education and scientific research as academic mobility continues to generate more transnational communities a with high educational profile. The academic literature is picking up on how diasporas and their organisations facilitate academic and research collaboration between institutions in their 'host' and 'home' countries. However, this discourse largely focuses on those residing in industrialised countries, particularly Europe and North America. There is limited research on the diasporic relationship between and within regions in the Global South, and even less on diaspora-mediated academic collaboration between Africa, Asia and Latin America. Against this backdrop, this article explores the role of diaspora in academic and scientific collaboration within and between these regions. It highlights some historical and contemporary migratory relations between them, along with student mobility as a means of formation of academic diaspora. The article argues that, among other things, the limited academic collaboration between countries of the Global South can be attributed to structural issues such as inequality in the geopolitics of knowledge and the characteristics of migrant communities. It also suggests possible future scenarios including trends in migration and the potential to foster scientific collaboration.

Résumé

Le rôle de la diaspora dans la promotion de l'enseignement supérieur et de la recherche scientifique suscite un intérêt croissant, car la mobilité académique continue de générer des communautés transnationales de plus en plus nombreuses et au profil éducatif élevé. La littérature

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académique s'intéresse à la manière dont les diasporas et leurs organisations facilitent la collaboration académique et de recherche entre les institutions de leurs pays " d'accueil " et " d'origine ". Cependant, ce discours se concentre en grande partie sur les personnes résidant dans les pays industrialisés, en particulier en Europe et en Amérique du Nord. Il existe peu de recherches sur les relations diasporiques entre et au sein des régions du Sud, et encore moins sur la collaboration universitaire médiée par les diasporas entre l'Afrique, l'Asie et l'Amérique latine. Dans ce contexte, cet article explore le rôle de la diaspora dans la collaboration universitaire et scientifique au sein de ces régions et entre elles. Il met en lumière certaines relations migratoires historiques et contemporaines entre ces régions, ainsi que la mobilité des étudiants comme moyen de formation de la diaspora universitaire. L'article soutient, entre autres, que la collaboration universitaire limitée entre les pays du Sud peut être attribuée à des problèmes structurels tels que l'inégalité dans la géopolitique de la connaissance et les caractéristiques des communautés de migrants. Il suggère également des scénarios futurs possibles, notamment les tendances en matière de migration et le potentiel pour favoriser la collaboration scientifique.

Introduction

There is relatively little academic research collaboration between Africa, Asia and Latin America. Instead, those regions tend to focus on collaboration with universities and research institutions in Europe and North America. The reasons include the fact that, firstly, there are well-established connections between American and European academic institutions and those in the regions under consideration. Strong historical ties between African, Asian and Latin American countries and their counterparts in Europe and North America (especially in the case of Africa) partly explain this connection. Secondly, young academics and researchers who undertake doctoral and postdoctoral studies in the United States (US) and Europe retain connections in these countries after they return home and engage in joint projects. Thirdly, the national policies of countries in the three regions, such as government scholarship programmes to study abroad or research grants, tend to reproduce and strengthen pre-existing academic relationships with the Global North. Northern partners' provision of scholarships and grants to academics and institutions in the Global South is a further factor.

That said, the past couple of decades have witnessed growth in academic cooperation between countries on the three continents. However, this often benefits a limited number of major players in countries such as Japan, China, India and South Korea in Asia, South Africa and Nigeria in Africa, and Brazil and Mexico in Latin America.

This article examines the role of diaspora in shaping and sustaining academic collaboration between Africa, Asia and Latin America. It argues that collaboration is very limited due to global structural imbalances in the higher education landscape and the particular characteristics of diasporic communities in these regions. The article begins by highlighting broad historical and some contemporary migratory patterns between the regions, followed by a brief examination of specific diasporic communities to demonstrate the diversity in their formation and characteristics. Student mobility as a potential path for the formation of academic diaspora in these regions is also examined. Finally, the article discusses some of the structural issues that condition the emergence and development of academic diasporas, and presents hypotheses in relation to possible future trends.

Migratory patterns: A historical overview

This section discusses selected cases of historical migratory patterns in the three regions under consideration.

Africans in Latin America: the legacy of slavery

Immigrants of African origin started entering Latin America as slaves between the Conquest and 1820. Slavevoyages.org, an independent database on the slave trade, estimates that around 10 million African slaves arrived in America during this period. Brazil, the British and French colonies in the Caribbean, and Cuba were their main destinations. Since the end of the slave trade, the flows of people from Africa to Latin America have been substantially reduced and immigrants of African origin currently represent a small percentage of the total number of immigrants in the region. The arrival of the last African slaves in Brazil and Cuba was followed by the great wave of European migrations to America, providing the region with workers to support the expansion of agricultural exports (Skidmore, 1989; Moreno Fraginals, 2001; Fausto, 2003). The slave trade is, therefore, a critical aspect of the economic foundation of the South

American region. Similarly, the massive presence of Afro-descendants is an important feature in several Latin American and Caribbean countries, with a strong cultural and social influence (Williams, 1973).

Brazil has developed very active policies predicated on the historical legacies of the slave trade. These embrace both inward and outward looking dimensions. The inward looking aspect focuses on recognition and repair of the legacies of slavery. It also acknowledges and supports the advancement of Afro-descendants' cultural contribution. The outward looking dimension of these policies concerns Brazil's international relations, with particular interest in Africa. Unlike former colonial powers such as France and Britain, or emerging economic powers like China, Brazil's relations with Africa are marked by acknowledgement that the country is a former colony whose economy was built by African slaves. This unique orientation has been accompanied by a broad, diverse social and cultural movement that values Afro-Brazilian culture and the establishment of cultural ties with Africa, especially sub-Saharan Africa (Wade and Bailach, 2005).

No other cases in Latin America are comparable to the Brazilian one. Cuba, which also has a history of slavery, has had an important presence in Africa – e.g., Angola and Ethiopia; however, this was mainly in the context of the Cold War.

Africans to Asia

The movement of Africans to Asia has a long history with archaeological evidence indicating their presence in China during the Shang Dynasty (17th to 11th century B.C.) (Anshan, 2015). However, there is broad consensus among Chinese historians that the first Africans arrived during the Tang Dynasty (618-907 A.D.). The reasons for this migration are the subject of debate. On the one hand, the slave trade was believed to have caused migration across the Red Sea and Indian Ocean for centuries (Jayasuriya, 2009), leading to the presence of a significant number of people of African origin in eastern Asia and the Middle East. On the other hand, African migration to Asia is believed to be a more complex and much older phenomenon than the one across the Atlantic that needs to be studied in its unique context. African migrants' military involvement and impact in Asia is another crucial element of this migratory history. For instance, the *Sidis* (also spelled *Siddi, Sheedi* or *Siddhi*) – black people of African origin who live in present-day India, Pakistan and Sri Lanka with an estimated population of close to two million – first arrived in South Asia with the army of Arab commander Muhammad Bin Qasim in the 8th century (Paracha, 2018). Across Asia, African soldiers were valued by both local rulers and foreign powers such as the Portuguese, French and British colonial forces, the Ottoman Empire and the Dutch East Indies (Jayasuriya, 2009; Kessel, 2006).

Asians to Latin America: a diverse history

Asian migration to Latin America since the mid-nineteenth century has consisted of three main groups: Chinese and Indian, Japanese, and migration from the Middle East, especially Syria and Lebanon. In all three cases the number of migrants was small compared to the flow of Europeans.

Chinese and Indian migration was originally linked to the abolition of slavery, with Chinese workers indentured to replace the slaves on Cuban or Peruvian plantations, or to engage in public works, such as the construction of the Panama Canal. Between 1847 and 1874, Cuban landowners undertook a large-scale effort to hire Chinese immigrants, onboarding some 125 000 on eight-year contracts (Hu-DeHart, 2004). These migrants were hired for demanding work contracts and hard jobs, and were predominantly male, which had an important impact on the reproduction of communities in the diaspora and the characteristics of the generations born in the Caribbean (Hu-DeHart, 2004). The vast majority of the Chinese hired in Cuba left the island when their contracts ended, and at the beginning of the 20th century there was a much smaller number working on the sugar plantations.

Similarly, Indian migration, which was concentrated in British Guiana and some Caribbean islands was sparked by the abolition of slavery in the British colonies in 1833. Between 1838 and 1917 about 230 000 Indians, mainly from northern India, came to work in British Guiana with the vast majority working on the sugar plantations and a slightly larger number working on various Caribbean islands – especially in Trinidad and Tobago, and in Dutch and French Guiana. The retention rates of Indian workers were higher than those of the Chinese, which helps to explain the current influence of their descendants in the Guianas and the Antilles.

Japanese migration to Latin America did not follow the same rationale. It can be seen as a consequence of the reforms of the Meiji

period (1868-1912), especially modernisation of the agrarian sector that led to rapid migration from the countryside to the cities and emigration promoted by the government (Carranco, 2006; Lesser, 2013). In the first stage, Japanese emigrants went to Hawaii, the US and Canada. When the US closed its borders to Japanese immigrants in 1908, and Canada followed suit, they migrated to other countries in the Americas. Brazil was the main destination, receiving 188 000 Japanese between 1899 and 1941. Some travelled from Brazil to Argentina, while others returned to Japan, but the majority remained, creating an important community.

A differential feature of Japanese migration from its initial stages to the present has been the Japanese government's commitment to emigrants. Japanese immigrants worked on the coffee plantations, but for a limited period. With the support of the Japanese government, they formed agricultural colonies, which introduced important innovations to Brazilian agriculture. Migratory management, control of hygiene and food on trips, consular services, and assistance to Nikkei communities – descendants of Japanese born in Brazil – have been a constant in Japanese migration (Lesser, 2013).

A third important contingent of immigrants came from the Middle East. Since most of the region was under Ottoman rule at the time of the great migrations, the official documentation listed them as Turks, but the majority came from Syria and Lebanon. It is difficult to specify their number, but it is estimated that around 110 000 arrived in Brazil with more than twice this number in Argentina (Lesser, 2013; Liberali, 2007). Unlike other migrants, they did not dedicate themselves to agriculture, but concentrated on commerce. This group included Catholics, Orthodox Christians, Muslims and Jews.

Asians to Africa

While the literature on Asian emigration to Africa is limited, Indians and Chinese historically comprised the majority of migrants. There is some evidence of Indian trade activities along the east African shores of the Indian Ocean in the 12th century (Wood et al., 2012); however, Gupta (2014) claims that this phenomenon dates back more than 3 000 years. Similarly, the treasure voyages of Zheng He in the early 15th century during the Ming Dynasty (Finlay, 2008) established contact between Chinese and Africans. While these were temporary travels and encounters, in both cases some Asians settled in eastern Africa.

The arrival of a small group of Chinese workers (convicts and company slaves) with the Dutch East India Company in South Africa in the mid to late 17th century is considered the first confirmed emigration of Chinese to Africa (Park, 2009). In the early to mid-19th century, a number of contract labourers and artisans arrived in South Africa's early colonies, followed by tens of thousands of contract miners in the late 19th and early 20th centuries. In the post-World War II era China's Africa policy, anchored on fostering anti-colonial and post-colonial solidarity with African countries, offered an overarching framework for Chinese emigration to Africa (Terry, 2021). As Park (2009) notes, this geopolitical policy was exemplified by Mao's decision to send as many as 150 000 Chinese to work in African countries in various areas, including agriculture, technology, and infrastructure development.

The arrival of 342 indentured Indians in 1860 to work on plantations in the Natal Colony in South Africa is considered to mark the beginning of the long history of Indians in Africa (Desai and Vahed, 2010). Over the next half century, more than 200 000 Indian workers are believed to have come to Africa to work in areas such as the mines and railways. A considerable number of workers were also brought from British India to work in other former British colonies in eastern and southern Africa. During World War II, a number of Indian soldiers were also brought to Africa to fight on the side of the British and the Allied forces.

While it is difficult to obtain accurate figures, it is agreed that a substantial number of Indian and Chinese workers remained in Africa, establishing a permanent life that has continued for generations. However, it is also important to note that although the above account highlights the history of emigration from two major Asian countries to Africa, it does not provide a complete picture. For instance, the interaction between northern Africa and the Middle East, and the subsequent settlement of Arabs in the Maghreb region is another major aspect of migration to Africa. Therefore, this article only offers a broad context of the Asian diaspora in Africa, with in-depth historical and sociological studies still required.

The Ethiopian Jews, who arguably arrived in Ethiopia with King Menilek I, the legendary son of King Solomon and the Queen of Sheba, constitute another significant group. Also known as *Bete Israel* (House of Israel), they occupy a significant place in Ethiopia's socio-political and religious history (Quirin, 2011), having maintained their identity and

tradition for thousands of years. Since the 1980s Ethiopian Jews have been returning to Israel in their tens of thousands, creating a noticeable community in that country (Offer, 2007).

Latin American emigration to Asia and Africa

Emigration from Latin American countries to Asia and Africa has been and remains negligible. This is despite the fact that since the middle of the 20th century – and in some cases even earlier – most Latin American countries have shifted from being a destination to a source of global migratory movement. Three major migratory currents can be identified. The first and most prominent is emigration to the US with Mexico as a prominent source. Around 11 million Mexicans are currently residing in the US, with Colombia and Venezuela being the other major contributors. The second current is emigration to nearby countries with Paraguayans, Bolivians, Chileans and Uruguayans moving to Argentina and Peruvians to Chile as examples. The third is transoceanic emigration to Europe – especially to Spain – which was facilitated by the granting of dual citizenship to descendants of European emigrants (Esteban, 2015). An additional case of great importance that is difficult to fit into these categories is that of the massive emigration of Venezuelans, which, according to some estimates, represents around 15% of the country's population (García Arias and Restrepo Pineda, 2019).

There is thus limited emigration of Latin Americans to Asia and Africa. However, due to their common colonial history, a small number of Brazilians are found in Portuguese-speaking African countries such as Angola and Mozambique (Alden et al., 2017). Latin Americans' emigration to Japan in the latter half of the 20th century – which can be construed as the return of Japanese diasporas in Latin America rather than the formation of a Latin American diaspora in Japan – is discussed elsewhere.

Diasporas: snapshots

Given the diverse and complex nature of migratory movement between the three regions, it is difficult to provide an elaborate characterisation of each diaspora group in each region. This section therefore draws on available data to provide a brief description of the major diasporic groups in the regions. It is also important to note that the availability of literature (and data) varies across different countries and diaspora groups.

African diaspora in Latin America and Asia

Discussion on the African diaspora in Latin America centres on Brazil. As noted earlier, this is the largest diaspora in Brazil and it has a strong socio-cultural presence. A movement demanding greater recognition of historical injustices against Brazilians of African origin and acknowledgement of their contribution to contemporary Brazilian society emerged in the 1960s and 1970s (Lima, 2017). Successive governments formulated different policies to address this demand, including strengthening the links between Brazil and Africa (de Carvalho Winter, 2013).

From the early 2000s relations between Brazil and Africa featured in the former's international relations policies which reflect Brazil's political and economic position on the global stage (Rizzi et al., 2011). The unique feature of Brazil's relationship with the African diaspora is that it links a state with a powerful cultural construction which does not refer to specific groups of migrants from a specific African country. The networks of relationships between those who stayed and those who left, remittances, transnational communities or migrant organisations are not the main actors or means of the relationship. Rather, it is the appeal to a common identity, anchored in historical experiences – slavery and, to a lesser extent, the common colonial experience – and sustained by a very active policy, at least until Jair Bolsonaro became president of Brazil. It can thus be argued that, in this case, the notion of diaspora is associated with an 'umbrella' cultural category that gives meaning to a wide and diverse – and also imprecise – web of actions and relations between Brazil and Africa.

Overall, for Latin America, the analysis of immigration from African countries presents a dual problem. On the one hand, the number of African migrants in most Latin American countries is very small and is not separately presented in census reports. Brazil has the largest number of immigrants of African origin – around 15 000, which represents about 3% of all immigrants in the country. On the other hand, many of the Africans who arrive in Latin America are migrants in transit to the US (Yates and Bolter, 2021). Brazil is the main access point, followed by Ecuador. From there, migrants undertake a long and risky journey to reach Mexico and attempt to cross into the US. The main countries of origin are Eritrea, Somalia, Cameroon, the Democratic Republic of Congo, and Ghana.

In Asia, Africans' recent migration to China and India is related to the continent's growing relations with the two countries which have offered

increasing economic and educational opportunities to both temporary and permanent migrants as business people, professionals, students, economic migrants, and asylum-seekers. Since 2010, China has been Africa's largest trade partner with a trade volume of US$185 billion in 2018, a significant increase from US$10.8 billion in the year 2000 (Amoha, Hodzi and Castillo, 2020). It is estimated that more than half a million Africans live in China (Bodomo, 2020) and that the number is growing steadily.

A similar pattern can be observed in India. Besides the *Sidis* who are historically of African origin and have been assimilated into Indian society, growing economic and political ties between Africa and India, especially since the economic and IT upturn in the early 2000s have resulted in an increasing number of African students, business people and tourists flowing to major Indian cities. Africans in India mainly come from English-speaking countries in East Africa (especially Tanzania and Uganda) as well as those such as Sudan and Nigeria that have strong economic ties with India (Bhushan, 2021).

The Ethiopian diaspora in Israel is also worth considering. While estimates differ, it is commonly believed that there are more than 150 000 people of Ethiopian heritage in the country, a significant number of whom were born in Ethiopia and emigrated to Israel. Despite a record of discrimination and marginalisation (Offer, 2007), the Ethiopian Jewish community in Israel is thriving, with those born in Israel a growing presence in Israeli politics, the military, and academia.

Asian diaspora in Latin America and Africa

The economic crisis of the 1930s resulted in a drop in the number of migrants from Asia to Latin America. Flows of Asian migrants intensified in the 1970s with the arrival of Chinese migrants – first from Taiwan and later from mainland China – and Koreans, predominantly oriented towards retail trade (Hu-DeHart and López, 2008). At first, the Chinese established small businesses that sold food and cleaning supplies. They then moved into the food industry. Koreans also established themselves in the textile industry. Statistics show that between 50 and 60% of employed Chinese and Korean immigrants in Argentina and Brazil work in the commerce, repair, hotel and restaurant sector. In Mexico the percentage reaches around 90%. Around 30% of Japanese immigrants in Brazil

participate in the same sector, with 30% also participating in agricultural activities and 10% in manufacturing. In Argentina and Brazil, 20% of employed Koreans work in manufacturing. As the East Asian economies continued to expand, a small but influential new segment has been added, made up of managers of subsidiaries of Chinese, Japanese, and Korean-based multinational companies (Morimoto, 2004).

There has been significant growth in the population of Asian origin in several Latin American countries. Table 1 presents data on the magnitude of and trends in migration between 1990 and 2010 (the latest census figures available). Although the number is small compared to migration trends in other parts of the world, the table shows the growth of Chinese and Korean migration and the stagnation or decline of Japanese migration. The drop in Japanese migration in Brazil can be attributed to the return migration of Japanese and Nikkeis from Brazil and Peru to Japan.

Table 1: Number of immigrants of Chinese, Korean and Japanese origin in Argentina, Brazil and Mexico (based on the 1990 and 2010 census rounds)

Country of origin	Argentina		Brazil		Mexico	
	1990	2010	1990	2010	1990	2010
China	2 297	9 375	8 321	19 397	1 129	7 485
Korea	1 615	2 682	8 527	8 577	N/A	3 504
Japan	5 674	4 157	85 571	49 059	2 397	3 203

Source: Investigación de la Migración Internacional en América Latina - Centro Latinoamericano de Demografía [IMILA–CELADE], n.d.

In Africa the two prominent groups of Asian diasporas are the Indians and the Chinese. India and Africa have enjoyed partnerships for decades via a range of activities including ancient trade routes and cultural exchanges; and anti-colonial and nationalist movements (Sarkar and Panda, 2021). India-African engagement became more evident in the 1990s when India opened up its economy. The India-Africa Forum Summits (IAFS) of 2008, 2011 and 2015 fostered collaboration between the two regions in various areas including economic cooperation, socio-cultural ties, climate change, trade development, piracy, terrorism, nuclear disarmament and reform of the United Nations (Bhatia, 2011; Wagner, 2019).

In the second decade of this century, the Indian diaspora in Africa was estimated at more than 2.7 million with the number growing exponentially

(Gupta, 2014). Due to the long history of India-Africa relations, more than 2.5 million people or 93.6% of Indians in Africa are part of the diaspora, while the rest, around 174 000 are non-residents. Indian communities are dispersed across 46 African countries where they engage in different economic activities including trade, vocational and technical professions and highly-skilled positions. People of Indian origin whose families have lived in Africa for generations are well-assimilated and are citizens of their adopted country. Many hold important economic, scientific and political positions. As Thubauville (2013) noted in the case of Ethiopia, in many African countries a substantial number of Indians teach at different levels, mainly at universities and vocational schools. This represents a critical resource to strengthen academic ties between African institutions and their Indian counterparts.

China has established collaboration with Africa in a range of areas especially through trade and economic investment. The growing economic relationship between China and Africa, underpinned by major policies such as the Belt and Road Initiative of 2013, has resulted in a steadily increasing number of Chinese workers settling in Africa. Over the past two decades, African countries have become more open to Chinese workers who can travel to 27 countries without applying for a visa – either visa on arrival or visa free for a limited period (Harley, 2019). While it is difficult to come up with concrete numbers, it is estimated that about two million Chinese live in Africa (Bodomo, 2020). Chinese workers are found in every part of the continent, with larger concentrations in countries such as South Africa, Nigeria and Angola. Construction, major infrastructure development, telecommunications and trade are among the major areas within which they operate.

Latin American diaspora in Africa and Asia

The Latin American diaspora in Africa and Asia is small. For example, there are no more than 1 500 Mexican emigrants in any Asian or African destination, and the same can be said for Venezuela and Colombia. A small number of Brazilians reside in Lusophone African countries. It was reported that around 5 000 Brazilians were residing in Angola (Jover et al., 2012), mainly engaged in construction, mining and agriculture (Góes, 2008). Israel is the only Asian destination to attract a significant number of emigrants from Argentina and Chile, with more than 38 000 of its residents having been born in the former.

The two countries that go against this trend are Brazil and Peru. According to the United Nations Population Division (2020), it is estimated that 190 000 people who were born in Brazil and 50 000 born in Peru currently reside in Japan. Peruvian emigration to China is also significant, at around 15 000. These two cases can be considered as return migration by second or third generation Brazilians or Peruvians of Japanese or Chinese origin. It is debatable if this can be regarded as a return of Japanese or Chinese diaspora in Latin America or the formation of Brazilian and Peruvian diaspora in Japan and China.

The case of the *dekasegui* is of particular interest. *Dekasegui* means a temporary worker and refers to the migration – at first temporary, but often permanent – of descendants of Japanese immigrants in Brazil and Peru and, on a smaller scale, in Argentina and Bolivia – to Japan from the middle of the 1980s. The Brazilian *dekasegui* are the most numerous. According to Sakurai (2004), around 250 000 Brazilians of Japanese descent resided in Japan at the beginning of the century.

This is an important process, which has redefined the links between Brazil and Japan in terms of migration. Although the appeal to Japanese ancestry is a legal facilitator of such emigration to Japan, it is above all a labour migration to save money, send remittances, and return to Brazil (Ikeuchi, 2016). However, beyond this initial aspiration, many *dekasegui* have become permanent residents, formed families, and educated their children in the Japanese system, such that short-term return is not a viable option. The experience of these workers marks the beginning of a new stage in the history of Japanese Brazilians.

Student mobility

Student mobility is one of the paths through which diaspora formation takes place, although this is mainly the case for a few highly sought-after destinations for study abroad. Student mobility is promoted through scholarship programmes, and academic collaboration. For instance, Asian cooperation agencies have used this instrument and Brazil and Mexico provide financial support for doctoral studies abroad. Chile and Colombia also have international scholarship programmes.

Early cooperation between Mexico and Japan resulted in the Special Exchange Program for technical students and interns by the Japanese International Cooperation Agency (JICA), the Mexican National Council

for Science and Technology (CONACYT), and, currently, the Human Resources Training Cooperation Program in the Global Strategic Association (Fraga Salgado, 2020). Co-financed by JICA and CONACYT, it offers scholarships that enabled 2 509 Japanese students to study in Mexico and 2 286 Mexicans to conclude studies in Japan between 1971 and 2017.

Beyond such programmes, there are only a small number of scholarship holders in Asian and African countries. For instance, only 0.4% of Chilean scholarships for doctoral and master's studies in 2021 were granted for study in Asian and African destinations. Just under 1% of the scholarships awarded by the Mexican CONACYT were for studies in Asian countries. In the case of Brazil's Coordination of Higher Level Personnel Training (CAPES), scholarship holders for postgraduate studies in Asian universities represented around 0.8% of the total, and for African universities, about 1.2% – with just over half of these granted for studies in Mozambique.

China has become one of the world's leading destinations for international students after the US, the UK and Australia (ICEF Monitor, 2017) and it attracts the second largest number of African students after France (Breeze and Moore, 2017). According to the Ministry of Education of the People's Republic of China (2019), as at 2018, 81 562 African students were studying in Chinese universities, accounting for 16.5% of the close to half a million international students in the country. Although this might seem small in the context of the global scale of student mobility, the number grew by 4 549% over a 15-year period (by about 303% annually) from 2003, when it stood at 1 793 (Kigotho, 2020).

The literature identifies a range of reasons why China has become an attractive destination for international students, including Africans. These include low tuition fees, various scholarship opportunities, visa opportunities, the low cost of living and a variety of education pathways (Min and Falvey, 2018; Petzold and Moog, 2018; Yang et al., 2017).

India has also become a popular destination for an increasing number of African students. Since 2008, collaboration between India and Africa has been fostered under the rejuvenated 'South–South cooperation' of the India-Africa Forum Summits (IAFS) (McCann, 2021). The Indian Council for Cultural Relations (ICCR) scholarships, which were launched in the 1950s, have been offered to a large number of African students (ibid.).

At the start of the COVID-19 pandemic, about 25 000 African students were reportedly enrolled in various public and private Indian institutions, with Sudan and Nigeria having the highest numbers (Sawahel and Lillian, 2021). The number of Africans studying in India has increased due its growing relationship with the continent. In the case of countries like Ethiopia that are experiencing an expansion of higher education, Indian universities host government sponsored graduate students who commit to returning to their country to teach in different newly-established universities.

Academic diasporas: the missing link

The preceding sections painted a picture of historical migratory and contemporary diasporic relations between Africa, Asia and Latin America. Trends in student mobility, which is often associated with the formation of diaspora, especially academic diaspora, were also noted. Against this backdrop, this section explores some of the major structural issues that influence the formation and sustenance of academic diasporas, as well as their limited role in mediating academic collaboration between the three regions.

Structural dimensions: the geopolitics of knowledge and embedded inequality

Knowledge production and the institutions that produce it are unequally distributed across the world and are highly concentrated in northern countries. For example, the large industrial countries of Asia Pacific and the North Atlantic dominate the production of scientific articles. Brazil is the only Latin American country among the top 15 producers of such articles, with Mexico in 30th place, and the first African country, Egypt, is in 26th place.

Table 2: Top producers of scientific articles, 2021

	Country	Region	Number of scientific articles
1	China	Asiatic Region	860 012
2	United States	Northern America	726 552
3	United Kingdom	Western Europe	243 792
4	India	Asiatic Region	237 429
5	Germany	Western Europe	208 210
6	Italy	Western Europe	154 304
7	Japan	Asiatic Region	144 778
8	Canada	Northern America	130 786
9	France	Western Europe	128 210
10	Australia	Pacific Region	125 211
11	Russian Federation	Eastern Europe	123 849
12	Spain	Western Europe	122 688
13	South Korea	Asiatic Region	101 692
14	Brazil	Latin America	100 085
15	Iran	Middle East	77 346

Source: SCImago Country Ranking, 2021

This pattern is repeated in the case of patents, where Asian countries play a much greater role, with minimal participation by Latin American and African countries. Furthermore, American and European universities dominate international university rankings such as the top 100 list in the Academic Ranking of World Universities (ARWU), with very limited presence of universities from China, Japan, and Singapore. There are no Latin American universities among the first hundred. The University of Sao Paulo is the first to appear in the 101 to 150 band, followed by the National Autonomous University of Mexico and the University of Buenos Aires, between 201 and 300. Three Brazilian universities are listed in the 301 to 400 band, with two Brazilian, and one Chilean universities falling between 401 and 500. Five African universities are among the first 500 - four South African and one Egyptian.

It is interesting to note that China had 84 universities in the top 500 in 2020. In 2003 - the first edition of the ARWU ranking - it only had 19. This phenomenal growth was undoubtedly linked to Chinese institutions' ability to recruit professors and researchers from the enormous diaspora of Chinese doctoral graduates in American and, to a lesser extent, European

and Australian universities (Zweig and Wang, 2013; Fangmeng, 2016). Zweig and Wang (2013, p. 590) point out that "For some ... developing countries, the international flow of their human talent in the most recent decade has been more of a 'reverse brain drain,' rather than a terrible brain drain. South Korea (before it joined the OECD), Taiwan, Hong Kong and India have all seen a significant 'brain gain'." A similar trend can be discerned in China.

Young Asian graduates interested in a scientific career know that they need to pursue their doctorate in the US, United Kingdom, Germany, or France, and young Latin American and African graduates thought and still think the same. One way to illustrate this point is to note that a Mexican, a Thai, and a Ghanaian biologist can find each other more easily in the US, Germany, or Australia than in Mexico, Thailand, or Ghana. For a young Mexican scientist, pursuing an academic career in his/her own country with a doctorate from Brazil or South Africa is more difficult than with one from the US or Europe.

In short, the combination of the global distribution of knowledge production and incentives for the development of academic careers conspire against the possibility of building academic diasporas between Latin American, Asian, and African countries. In the few cases where collaborations can be identified - for example, between Brazil and Mozambique or Brazil and Cape Verde - they are related to Brazilian political initiatives, which finance African students, mediated by a common language from their common colonial history. Furthermore, these are somewhat short-term exchange programmes, which do not lead to the establishment of a group of Mozambican or Cape Verdean academics in Brazil. The flow of African graduate students to India and China is also often through government scholarships designed to ensure the return of students to their countries upon completion of their programmes.

Structural dimensions: the characteristics of migrants and diasporas

The second important structural dimension is the characteristics of migrants and diasporas. For instance, in the case of Africans in Latin America, the main conditioning factor is the very low presence of migrants from African countries, besides Brazilians of African origin. There are few contemporary immigrants and they are mainly concentrated in Brazil. Furthermore, many are migrants in transit to the US and they generally

have few qualifications. Thus, there is no critical mass of migrants with the requisite qualifications to sustain academic collaboration.

In the case of both Africans and Asians in Latin America, there are significant language, distance, and funding barriers. Brazil has chosen to focus its exchange programmes on Portuguese-speaking African countries, where the common language is an advantage. Distance is also a serious problem, not only with regard to the physical distance but also because of the lack of direct flights between most African and Latin American countries. In terms of financing, most of the countries in both regions do not have funding for cooperation projects and where they do it is not sufficient to sustain meaningful academic collaboration.

Language barriers are a significant problem in Asia-Latin America relations, although they are partially addressed by using English as the lingua franca, particularly in graduate programmes. The distances are greater, although there may be more availability of flights. However, East Asian countries have active cooperation policies, which enable the development of joint projects, although perhaps not in the quantity and diversity desired.

The characteristics of Asian migration to Latin America and vice versa do not facilitate the creation of academic diasporas. As noted earlier, Asian migrants primarily engage in commercial activities with family businesses common, especially among the Chinese. The children of migrants often study at university, but are more interested in careers in business than in science. Many young members of Japanese communities in Latin America have recorded outstanding university performance and are thus more likely to work in academic institutions. Sakurai (2004) notes that a 1986 survey of the 4 909 professors at the University of Sao Paulo, the largest in the country, found that 276 had Japanese surnames with strong concentration in the fields of engineering, nursing, physics, and medicine. This orientation of some descendants of Japanese makes it possible to identify a group that has probably participated in cooperative activities with Japan. However, as the generations go by, the link with the country of origin is attenuated, especially when there are significant levels of exogamy, as is the case of the Brazilian *Nikkeis*.

The jobs performed by Latin American emigrants in Asia and the terms of their contracts also render it unlikely that they will engage in academic collaborations. For example, emigrants to Japan were issued with temporary

visas to perform low-skilled jobs. However, it is possible that the second and third generations are potential players in academic collaborations.

Among Asian diasporas in Africa, Indians seem to have stronger potential to mediate academic collaboration. Firstly, the large majority of the Indian diaspora in Africa has lived on the continent for generations and is known to perform well in academia, as in other areas like business and politics. They occupy important positions that can be leveraged to mobilise resources and influence institutions to collaborate with Indian universities. However, given that they have lived in their adoptive countries for generations, their connection with India might have weakened over time. Second, a considerable number of contemporary Indian migrants to Africa come for professional engagements including as teachers in universities and vocational schools. Those working in African academic and research institutions are well positioned to mediate collaborations with Indian institutions. For their part, the Chinese in Africa are often engaged in economic activities far removed from academia such as commercial activities and skilled and semi-skilled professional work related to construction and infrastructure development.

African emigrants to Asia are also not in a suitable position to negotiate collaborative relations. As noted earlier, most Africans in India and China are students, professionals on limited-term contracts, traders on a temporary stay or are engaged in low-skill jobs. They rarely occupy academic positions.

Possible future scenarios: can the role of diasporas in academic cooperation grow?

The preceding sections highlighted the structural conditions that have influenced the role of diasporas in academic collaboration between Africa, Asia and Latin America. This section proposes hypotheses in relation to the evolution of this role in the near future, with some suggestions to strengthen it.

First, it is very unlikely that Latin American migration patterns will change significantly: outflows to the US and Europe - especially Spain - and cross-border migration within the continent will continue to predominate. Immigration of people of Asian origin to Latin America - especially Chinese - may continue to grow, but on a limited scale. The same can be said of African immigration. Latin American countries' economic performance in the past decade has been below expectations. While there have been

some improvements, it does not seem that the exceptional conditions of the first decade of the 21st century - the 'commodities super cycle' - will be repeated, thus weakening economic incentives for immigration.

Second, it is likely that the East Asian countries will continue to support cooperation with Latin America and Africa as part of their international relations strategies. There may be changes in instruments or priorities, but the more developed and emerging countries of Asia have important interests in the two regions and technical (and sometimes cultural) cooperation is part of their standard international policy agenda. China will probably intensify its efforts in keeping with its role as a global power, followed by India and Japan, while other Asian countries will try to gain a foothold in both regions. Japan has recently sought to strengthen its power and influence through internationalisation of higher education and research collaborations with an increasing number of countries. One of its target counterparts is African countries, demonstrated in Japanese investment in developing joint research projects such as those funded by the Core-to-Core Program of the Japan Society for the Promotion of Science. Networks developed among researchers and countries as a result of these projects promise further and more extensive collaborations in the future at both government and individual academic levels.

Third, East Asian educational institutions - especially in China - are likely to continue along their path of academic progress and international reputation. China and Africa enjoy a long-standing friendship and collaboration in a range of areas, based on agreements such as the Proposals on China-Africa People-to-People Exchanges and Cooperation. China and Africa have launched initiatives to support cooperation among academics, and in research activities and publications. Both sides appear keen on research topics such as state governance, development paths, industrial capacity cooperation, culture, and law and more than 80 think tanks and academic research institutions have participated in the China-Africa Joint Research and Exchange Plan (Ministry of Foreign Affairs of the People's Republic of China, 2021). The Fifth Ministerial Conference of the Forum on China-Africa Cooperation (FOCAC) held in 2012 proposed the implementation of the China-Africa Think Tanks 10+10 Partnership Plan for long-term paired cooperation (ibid.).

From this perspective, it is possible that Asian countries will increase their internationalisation activities, propelled by substantial

government funding. This would mean deliberate efforts to compete for students, attract graduate students with strong potential and develop research projects with colleagues from regions that until now have not been of great importance, such as Latin America and Africa. In such a scenario Latin American academic cooperation with Asia could change. Currently, such cooperation is mainly in the social sciences on topics that involve both regions – e.g., foreign relations, international trade, history, etc. Collaboration is lacking among professionals such as biologists, physicists, and chemists. This calls for material commitment in the form of scholarships and projects, while recognition and prestige make an important contribution.

Fourth, cooperation among Latin American countries will likely continue, apart from Brazil and, to some extent, Mexico and Chile reacting to or complementing the cooperation initiatives of Asian countries. However, in terms of the establishment and growth of research centres and groups, it is likely that relations with Asia and Africa will find greater favour in national international academic cooperation programmes. Growing economic opportunities in India, China and other Asian countries are intensifying collaboration with African countries in various areas, including higher education. African countries are likely to continue wooing these countries which are not only seen as model emerging economies, but arguably also impose less onerous conditionalities and are less inclined to interfere in their partners' political and governance affairs.

The emergence of academic diasporas or, more generally, of diasporas of knowledge depends on a set of diverse factors (Meyer, 2011). Some - probably the most decisive - concern structural characteristics, including the size and composition of migrant communities, the economic context of the countries of origin and destination, or the existence of linkages. However, multiple potential initiatives that are often inexpensive could be adopted to take advantage of qualified immigrants to connect academics from different regions. These initiatives are usually of low visibility and are not always part of formal university cooperation programmes. Government's role in terms of creating a conducive environment and providing support and resources for academic and research collaboration is critical. Indeed, in the past two decades, central and local governments and multiple actors (e.g., government officials, staff at research institutes) in different countries have started identifying different strategies to

strengthen exchange opportunities through diaspora professional networks and put forward recommendations to improve governance and synergise state activities and market mechanisms.

Academics from the three regions who are based in well-resourced institutions in Europe, North America and Oceania can play an important role in enabling collaboration with institutions in their regions of origin. Returning to our earlier example, the Mexican, the Thai, and the Ghanaian who meet in the US could initiate and support collaboration between the institutions in their respective countries of origin. This represents academic collaboration mediated by the diaspora, but not necessarily those in the regions of collaborating institutions.

It is also important to acknowledge the critical role of private foundations and other donors which facilitate collaborative engagement between diaspora academics and their counterparts in their home countries. These institutions draw on resources and advocacy to mediate between academics of the three regions, including those in the diasporas. The support of the Carnegie Corporation of New York through the African Diaspora Fellowship Program as well as the Higher Education Forum for Africa, Asia and Latin America (HEFAALA) is a worthwhile example. For instance, HEFAALA not only brings together academics of the three regions from around the world; it also creates opportunities and encourages them to collaborate.

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The Notion of Relevance in Academic Collaboration: From Setting Objectives to Targeting Development Goals

Wondwosen Tamrat

Abstract

This article examines the notion of relevance in academic collaboration between North and South partners. It traces the history and nature of academic cooperation, and the major factors that determine the success of partnerships. It is argued that equitable, collaborative agenda setting, clear decision-making procedures, and consideration of the developmental goals that are the envisaged outcome of collaboration schemes are mechanisms that can be used to address issues of relevance. Failure to address relevance concerns could result in academics or institutions being diverted from addressing local or national priority areas. In turn, this could result in the relevance of the cooperation itself being questioned.

Résumé

Cet article interroge la notion de pertinence dans la collaboration académique entre partenaires Nord et Sud. Il retrace l'histoire et la nature de la coopération universitaire, ainsi que les principaux facteurs qui déterminent le succès des partenariats. Il est soutenu que l'établissement d'un programme équitable et collaboratif, des procédures de prise de décision claires et la prise en compte des objectifs de développement qui sont le résultat envisagé des programmes de collaboration sont des mécanismes qui peuvent être utilisés pour résoudre les problèmes pertinents. Le fait de ne pas répondre aux préoccupations liées à la pertinence pourrait détourner les universitaires ou les institutions de s'occuper des domaines prioritaires locaux ou nationaux. Cela pourrait à son tour remettre en question la pertinence de la coopération elle-même.

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Introduction

Collaboration occurs "when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms and structures to act or decide on issues related to that domain" (Wood, 1991, p. 146). Partnerships have "powerful potential" to address multi-faceted challenges and offer reciprocal benefits and mutual rewards to the parties involved (Downes, 2013). The benefits of academic collaborations include developing research capacity, enhancing institutional status and competitiveness, improving overall systems and instructional practice, professional development and learning, and enhanced academic exposure (Bradley, 2008; Hanada, 2021).

Beyond their institutional or national significance, collaborative schemes are also recognised in international commitments such as the United Nations Millennium Development Goals (Goal 8) and Sustainable Development Goals (SDG17) which highlight their importance in enhancing sustainable development. Although collaboration is recognised as an effective means of addressing multifaceted issues in diverse fields of study, success is difficult to achieve (Marek, Brock, and Savla, 2015). Partnerships between institutions in the Global North and the Global South are affected by an interplay of many factors. Their philanthropic and paternalistic nature, the hegemonic role of a Western educational discourse, the lopsided relationship between the North and South, and the different institutional objectives the two worlds pursue as well as their divergent norms and institutional logics have often been serious obstacles in establishing effective partnerships (Bradley, 2008; Breidlid, 2013; Carbonnier and Kontinen, 2015).

Success in this regard calls for an examination of existing patterns of engagement and for concerns that inhibit effectiveness and efficiency to be addressed. Unless they are properly designed and pursued, new and promising mechanisms for academic collaboration may be no different from the former paternalistic relationships which are often blamed for excessive dependence on the North. Partnerships that focus on external support to the Global South are often accused of perpetuating dependence, and, in turn, poverty (Eshuchi, 2009; Carbonnier and Kontinen, 2015). Although diverse motivations and circumstances might underpin a collaborative arrangement between or among institutions, the issue of relevance is one of the most serious impediments or factors contributing to success in collaborative ventures.

This article examines the notion of relevance in collaboration, particularly from the perspective of Southern partners. It highlights relevance in the context of academic collaboration and the mechanisms by which collaborating parties seek to ensure that they gain from the partnership without compromising their bargaining power and benefits.

The article is presented in five sections. The first discusses the methodology employed, followed by a review of related literature and an analysis of the two major components of academic cooperation whose design incorporates elements of relevance. Section four addresses the issue of relevance, followed by a conclusion.

Methodology

A qualitative study was conducted based on a desk review of available literature. Relevant theoretical conceptualisations and practical experiences were investigated by bringing together a diverse range of conceptual and empirical research from multiple viewpoints with particular emphasis on the Global South and higher education institutions located in this region. The data were analysed using thematic content analysis and inductive reasoning. The four common steps of content analysis, decontextualisation, recontextualisation, categorisation, and compilation were employed to arrive at the final outcome (Bengtsson, 2016).

The nature and features of academic collaboration: review of related literature

Scientific cooperation between the Global North and the Global South has a long history. Rosseel, De Corte, Blommaert, and Verniers (2009) note that the importance of development cooperation was recognised in the late 1940s after World War II, when the Marshall Plan was launched to assist European countries to reconstruct their devastated economies. In terms of developing countries, the United States (US) is credited for taking the lead in promoting cooperation with 'Point four' of President Truman's 1949 'Bold New Program' which is regarded as the starting point of modern development cooperation (Rosseel et al., 2009). While the period from the 1940s to the early 1960s is regarded as the heyday of bilateral relations, the early 1960s to mid-1970s saw significant growth in multilateral development assistance which involved financing by a large number of states. Since the 1990s, partnerships have been the

most common framework for multilateral scientific research and for development assistance between the North and developing countries (Obamwa and Mwewa, 2009). Within academia, the concept of international cooperation appears to be as old as universities themselves (King, 2020). However, meaningful North-South collaboration only really took off following recognition of the role of higher education in the 1990s.

International cooperation assumes a variety of forms and delivery mechanisms that include networks (defined as a relatively loose form of cooperation characterised by horizontal exchange of information, lacking a hierarchy and long-term commitment); cooperation (a form of organised interaction towards a common end for mutual benefit); and partnerships (highly structured forms of cooperation, with long-term concrete activities, a form of contract, and autonomous participating partners) (Baud and Post, 2001). Collaboration schemes use different mechanisms to channel resources to scientific and technological activities, including bilateral and multilateral mechanisms, non-governmental organisations (NGOs) and international scientific societies (Gaillard, 1994). According to Halvorsen and Nossum (2016), Northern universities and researchers depend heavily on bilateral, multilateral and international donor organisations, foundations and governments to fund North-South collaborations. Within these broad frameworks, the conceptualisation of academic collaboration can take different modalities including the purposes for which it is designed, the major participants involved and the location (North-South), etc. (Obamwa and Mewa, 2009; Bradley, 2007).

Academic collaboration has now become a ubiquitous feature of institutional operations organised in a wide variety of structural forms and for different purposes among individual researchers, academic institutions, international development agencies, and governments (Obamwa and Mewa, 2009). The literature notes that its objectives and benefits include enhancing and developing institutional status and competitiveness; building teaching, research and outreach capacity; improving overall systems and instructional practice; organisational and/or institutional development, professional development and learning; enhanced academic exposure; and research collaboration and networking (Boeren, 2012; Hanada, 2021). Specific partnerships may also include staff development schemes, curriculum development, improved teaching and research facilities, joint research activities, staff and student exchange and professional advice which tend to overlap or be combined (Boeren, 2012).

The notion of relevance

Academic collaboration's success is mediated by a variety of factors that include relevance which is often raised as a key element, especially in contexts where the collaborating parties seek to maximise their benefits. Relevance is defined as, "The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies" (OECD, 2002, p. 32). According to Klakegg (2015, p. 13), it "represents a connection between activities in the project, their results and outcomes and the purpose. If the activities produce results that is not what the users wants or needs, or if results do not comply with the requirements set up by the owner or financing party - then your project does not produce the right solution. The result will not be used as intended, and thus the intended value will never be generated."

The notion of relevance emphasises the need to understand one's own context which is a critical component of any cooperative scheme. Kim, Sohn and Lee (2020) note that it covers the relevance of *objectives*, *project design*, and *targeting*.

The relevance of objectives

Although formulating objectives is undoubtedly a difficult task, it remains an essential requirement in all academic collaborative schemes. According to Klakegg (2010, p. 420), relevance is directly related to the objectives of a collaborative project, and is often about assessing the degree to which the objectives are in keeping with valid priorities and the users' needs or how the issue of usefulness is judged from the owner's or financing party's viewpoint. As noted by UNESCO (1975, p. 793), joint collaboration at various levels is only effective if there is legitimate interest in the matter by all concerned, if it results in work of higher quality and relevance, and if disparities in academic resources and capacity between participants from developed and developing countries and within developing countries diminish as a result of collaboration.

A lack of relevance in a given collaborative project or partnership scheme may be due to the fact that users' needs are *unknown, misunderstood* or *ignored* (Klakegg, 2010). The project's objectives may not be stated clearly or expressed in a very unclear manner. Users' needs are sometimes ignored by planners and decision makers due to political

factors or participants' personal inclinations, especially if planners and decision makers consider themselves better able to assess needs and thus override users' stated preferences; consider political goals and priorities more important than users' needs; or regard their own goals and priorities as more important (Klakegg, 2010).

It is argued that the needs and priorities of the South should be the basis for partnerships in North-South cooperation schemes (Eshuchi, 2009). The fundamental danger underlying a supply-oriented identification of needs is that the Northern institution influences the agendas and major areas of interest of institutions in the South (Audenhoven, 2015). Carbonnier and Kontinen (2015, p. 154) found that one of the many practices identified as negative by Southern partners is 'unilateral dictation' and 'pre-determination' of the research agenda by Northern partners in order to fit 'Northern perceived quality' with little input from Southern partners.

It is important to bear in mind that partner institutions in the North and South may have different and multiple motivations and interests in entering a collaborative agreement. While those in the North could be motivated by the possibility of undertaking joint research, data collection, the internationalisation of education, financial and personal considerations and international solidarity with developing countries, institutions in the South may have different motives such as agreements on institutional development, joint research, support for courses, staff training, financial or infrastructural support and academic networks (Audenhoven, 2015). Although strong Southern research organisations are best placed to maximise the benefits of collaboration, many organisations entering into partnerships lack a clear sense of their priorities and institutional capacities that are critical to successful negotiations (Bradley, 2008). This is perhaps why the literature on North-South research cooperation often laments that collaborative agendas continue to be determined by the interests of Northern donors and scholars, and calls for more equitable Southern engagement in agenda-setting (Bradley, 2008). Hence, objectives and goals should be identified based on a common understanding of the motives and interests on both sides of the partnership, and relevant stakeholders' active participation and involvement (Bradley, 2008; Klakegg, 2010).

Audenhoven (2015) identifies two major models to match the needs of partner institutions in the North and South, namely, 'consensus' and

'tendering'. In the consensus model, cooperation is initiated by both or one of the partner institutions. Both or one of the partners submit a joint proposal for cooperation which is evaluated by an independent commission, taking into account the needs and priorities of the Southern partner. While the main advantage of this kind of matching is that the partners are acquainted and ready for cooperation, its drawback is that, because of its asymmetrical nature, it is easy for the Northern partner to adopt a more hands-on approach (Audehoven, 2015). In the tendering model, the initiative lies with the Southern partners who draw up initial project plans that are tendered to institutions in the North that respond to the proposals. The role of the donor or intermediate organisation is confined to that of a broker. The main advantage of this procedure is that the initiative, identification of needs and to some extent the drafting of projects originate solely from the Southern partner which is more appropriate and can help to avoid excessive Northern influence, misplaced priorities and *a priori* asymmetrical partnerships (Audehoven, 2015).

Many partnerships are premised on the assumption that all those involved are well-intended, well-informed and culturally sensitive, and that these qualities are sufficient for equitable agenda setting (Bradley, 2008). While these qualities are certainly important during the initial phase of an academic collaboration, they cannot substitute for the advantages that strong Southern organisations can bring during the negotiation process. This is because such organisations are characterised by realistic awareness of their own strengths and weaknesses; sound administrative systems; relatively stable finances; and most importantly, a clear institutional mandate and agenda (Bradley, 2008). As noted by Bradley (2008, p. 682), given the abundant obstacles, the "strength of the Southern institution in a North-South partnership stands out as the primary factor affecting successful negotiations that are both mutually beneficial and rooted in Southern priorities".

The relevance of project design

As noted earlier, successful partnerships require that collaboration be designed based on needs and joint agenda setting and initiation (Halvorsen and Nossum, 2016). However, partnerships can fail due to poor planning and decision making. A systematic planning and decision-making process provides a fundamental logical framework for the project

and clearly formulates the objectives and goals (Klakegg, 2010; Csiszárik-Kocsir, 2018). Eshuci (2009) contends that, "The partners should have a clear map of which responsibilities rest with which partner thus ensuring clear communication and coordination." Ideally, the actors from the North and South should share decision-making power over planning and implementation of joint programmes, and should engage in mutual governance, with each partner having some substantive influence on the policies and practices of the other at the implementation level. A further principle is sustainable development, which essentially involves the Southern partners being groomed to take over the project and run their own in the future (Eshuci, 2009). Eshuchi (2009) further argues that, in pursuit of relevance, programmes should be situated closer to the South in terms of delivery and cooperation, focusing on the needs of Southern partners and assigning them a larger role in the collaboration since this can not only lend it relevance but also increase the chances of success. This is in line with the general assumption that "development is essentially an internally-driven process that the donors can merely accelerate or contribute to by enabling a conducive environment for the process to succeed" (Eshuchi, 2009, p. 45).

The relevance of targeting societal needs

The overall goals of academic cooperation schemes are often assumed to be academic ones. Beyond such objectives, it is becoming increasingly common to assess their relevance in terms of meeting societal needs and promoting developmental goals (i.e., what they bring to the economy, society, culture, public administration, health, the environment and overall quality of life), which need to be considered from the earliest phase until the end of a cooperative agreement. Re-orientation of collaboration schemes is thus required in order to make them more relevant to the basic needs of Southern partners. UNESCO asserts that:

> It is time to seek alternative development strategies more relevant to Third World [sic] needs: (a) which extend beyond material progress to integrate the cultural and social values of society; (b) which benefit the bulk of the population, and not only a privileged minority through appropriate socio-economic structural changes; (c) which reflect a creative interaction between indigenous thinking and external experience and which are based on appropriate technology and resources indigenous (1975, p. 792).

Similarly, Eshuchi (2009, p. 45) notes, "Partnerships in development aid are meant to ensure the relevance of the projects. Projects would only contribute to development if they address the problems of the South with appropriate tools and measure[s]." Only through such considerations can collaborations respond to community needs and equip different actors with the knowledge necessary to tackle pressing development issues (Bradley, 2008).

Academic collaboration schemes and the issue of relevance

Academic collaboration can incorporate different schemes including collaboration between scholars, disciplines, institutions, sectors, and countries (Shin et al., 2013). As noted earlier, it can also be effected in various modalities such as staff exchange and development, collaborative research, etc. The following sections examine how the notion of relevance is addressed in research projects and scholarships/fellowships which are two of the most common forms of academic collaboration.

Research projects

Knowledge generated through research can achieve relevance in three major ways: *Output*: The increment in knowledge generated on an issue and its availability in the form of concrete products; *Outcome*: The importance assigned to knowledge, and its uptake in a specific societal context; *Impact*: Changes in real-world situations through action that results from societal uptake of the new knowledge (KFPE, 2011). This suggests the need to assess the quality of research not only by the rigours of academic disciplines, but also by its contribution and impact within society (Barrett et al., 2011).

For too long, research projects between the North and South have been characterised by various forms of dominance and inequalities. Addressing this gap calls for a more equitable form of partnerships. According to UNESCO (1975, p. 793), strengthening research and training capability in developing countries involves four elements: (a) reorientation towards greater relevance in their activities; (b) improvement in the professional quality of their work, particularly in the weaker institutions which often lack sufficient resources; (c) expansion in the number of capable training and research institutions and staff; (d) building mechanisms for collaboration. Relevance continues to be important in Northern partners'

continued efforts to modify their research partnership schemes with the South. As argued by Eshuchi (2009, pp. 39-40),

> For this new approach to be effective, it should focus on three principal objectives. First, donor interventions should be relevant to the development needs of the African countries. This should entail a focus on enabling African higher education to adapt to and utilize the knowledge economy towards becoming engines of growth and development. They should reflect the needs of the African continent, specifically in terms of promoting appropriate science and technology and also research on development issues. Secondly, the interventions should shift from a development aid perspective towards collaboration in knowledge production. And thirdly, the interventions should strive to strengthen research capacity and infrastructure through collaboration and targeted funding (Domatob, 1998, p. 58; Norad, 2005, p. 139).

Practical considerations in responding to the question of relevance while establishing research priorities include clarity with regard to objectives, ideas and needs with the equal participation of stakeholders from the South. A good example of the failure to establish priorities between the North and South is what is known as the '10/90 gap' in health research where less than 10% of global spending is devoted to 90% of the world's health problems that are pervasive in the developing world (Global Forum for Health Research, 2020).

Decisions and the development of research themes should thus involve the active participation of all partners, including those who will use the results (KFPE, 1998). Schemes for research funding should aim to put Southern partners in the driving seat to enable them to select a relevant Northern partner (Carbonnier and Kontinew, 2015, p. 160). Collaboration of this nature is not only considered as a vehicle to focus research on the priority needs of the South, but it can also address the power differentials determined by history and economic inequalities, and strengthen Southern partners' institutional and national research capacity, reducing their dependence on Northern research organisations and expertise (Barrett et al., 2011; Jentsch, 2004).

However, this is always a challenging task:

> It must be remembered that the process in which the partners 'find' each other is usually very time-consuming. This is particularly true for the members of the teams who are directly involved in the research activities. Nevertheless, the effort is rewarding in many different ways. In order to involve wider circles – including the local population – in both the preparations and the actual research work, special meetings need to be organized, and if necessary, information must be prepared in a form in which it can be understood by the general public (KFPE, 1998, p. 8).

Despite the many challenges, there are increasing signs that Northern partners are addressing the issue of relevance through policy postures and practical engagements. The Netherlands Development Assistance Research Council (RAWOO), which was disbanded in 2007, determined research agendas by Southern partners based on the principles of cooperation and equality and strongly supported demand driven research that considered locally (Southern) defined research priorities and needs (Ishengoma, 2016). Similarly, the Swedish International Development Cooperation Agency (SIDA) asserts that relevance to society – i.e., science-based policy making, improved products and services and ultimately poverty reduction and sustainability, is a key aspect of its research funding. The Swiss Commission for Research Partnerships with Developing Countries (KFPE) (1998) contends that like any cooperative enterprise, research partnerships must always be oriented towards particular goals and a specific setting, including their relevance to development and the need for results that are visible to and tangible for the local community.

Various schemes or frameworks that incorporate basic considerations like the issue of relevance have also been developed to guide the establishment and monitoring of different forms of research partnerships. The ESSENCE research framework developed by funding agencies to improve coordination and harmonisation of investment in research capacity outlines seven principles that guide the "coordination and harmonization of research capacity investment": Network, collaborate, communicate and share experiences; understand the local context and evaluate existing research capacity; ensure local ownership and active support; build in monitoring, evaluation and learning from the start; establish robust research governance and support structures and promote effective leadership; embed strong support, supervision and mentorship structures; and think long-term, be flexible and plan for continuity (Fekadu et al., 2021).

The KFPE's guidelines for research partnerships with developing countries focus on planning, implementation and application of research. The principles include: 1. Decide on the objectives together 2. Build mutual trust 3. Share information; develop networks 4. Share responsibility 5. Create transparency 6. Monitor and evaluate the collaboration 7. Disseminate the results 8. Apply the results 9. Share profits equitably 10. Increase research capacity, and 11. Build on the achievements (Fekadu et al., 2021). The related Collaborative Advantage Framework was developed to maximise the impact of SDG partnerships. It sets out ten strategies to create additional 'value' and maximise impact and risk reduction. This approach embraces 'collaboration maturity models' that describe the progressive steps that promote productive relationships between partners for the purposes of pulling strengths together and gaining competitive advantage. The values-driven and progressive academic partnership maturity model it proposes for global partnerships is anchored on equity, mutual benefit, growth, and sustainability (Fekadu et al., 2021).

Scholarships/fellowships

One of the major academic collaboration schemes where the issue of relevance is often raised is the provision of scholarships/fellowships to Southern countries. Capacity building through scholarships/fellowships is given priority in development oriented partnerships as it is assumed that it will enhance self-sufficiency. Scholarship programmes have long been a major part of global efforts to broaden access to higher education and research (again, indicating a belief in capacity development at the individual level).

However, such initiatives confront numerous challenges and dilemmas, including the brain-drain and the relevance, usefulness and cost-effectiveness of non-localised education and qualifications (Halvorsen and Nassum, 2016). As noted by Barrett et al. (2011), focusing capacity development on individuals does not necessarily strengthen any specific institution due to the mobility gained by recipients. Indeed, scholarships to study overseas remove key talented people from institutions in low-income countries for long periods of time, and student awards redirect funds supposedly 'donated' to low-income countries to the coffers of universities in the donor country.

The impact of scholarships is often assumed to increase if individual opportunities are integrated or closely linked to broader institutional or

developmental goals (Boeren, 2012). It is argued that training should not only be relevant to the applicant, but its impact should extend beyond his/her individual interests. Accordingly, relevance should be one of the factors employed to assess the success of fellowship programmes and address the specific capacity needs of the developing world.

For instance, the Norwegian Agency for Development Cooperation (Norad) Fellowship Programme (NFP) uses *relevance* (the extent to which it was consistent with development cooperation objectives), *effectiveness* (the extent to which major objectives were achieved at country and programme level), *efficiency* (the extent to which administrative and financial arrangements contributed to achieving programme objectives), *sustainability* (continuation of programmes as normal anchored courses at universities) and the *impact* (change agent impact especially as regards development and Norwegian objectives in partner countries) as key criteria to assess the programme (Eshuchi, 2009, p. 61).

Norad's Programme for Master Studies (NOMA), which focused on capacity building for master's programmes in Global South countries, was implemented from 2006 to 2014 and its indicators of success were identified as the number of master's programmes established at institutions in the Global South, including those of direct relevance to the work force; the number of candidates educated; and the number of candidates educated through NOMA and employed by institutions in the South (Carbonnier and Kontinen, 2015).

However, collaboration schemes may not always adopt these principles. For such schemes to work effectively, the opportunities created should be linked to broader institutional or organisational development goals. At one level, the relevance of courses and the training approach need to correspond to the training needs in developing countries. The relevance of fellowship programmes to the development of the candidate's country of origin could be assessed through different instruments including a) nomination and selection criteria and processes, b) assessment of curricula, c) location and duration of training (Eschuchi, 2009).

Despite being successful, the NFP is reported to be no longer relevant due to a multitude of reasons that include the lack of objective assessment of the development needs of Southern partners, the fact that the programme became supply-driven with no transparent link to the demands of developing countries, and its inability to achieve critical

mass, which would be essential in achieving the change agent effect that was originally hoped for (Eshuchi, 2009). The need to address these deficiencies resulted in the introduction of a revised NOMA.

The Norwegian Partnership Programme for Global Academic Cooperation (NORPART) was launched by the Norwegian government in 2016. Instead of one-way mobility where students from the Global South study at Norwegian universities, students at both universities spend time at the other institution, and degrees are granted by the home university, thus preventing brain drain from the Global South (Carbonnier and Kontinen, 2015).

Towards addressing relevance concerns and challenges

The challenges confronting sustainable international university partnerships include legal, financial, academic, institutional, and cultural issues as well as concerns with regard to evaluation (Tekleselassie and Ford, 2019). One of the major challenges in addressing relevance is the unequal relationship between the North and South which has also been identified as the most common obstacle for many collaborative schemes.

The persistent global inequities and vast asymmetries in various partnership domains have been identified as 'hegemonic', 'paternalistic', 'asymmetrical', and 'imbalanced' (Sabzalieva et al., 2019). One of the challenges of North-South collaboration is the North's attempt to impose its political, socio-cultural and economic hegemony. As noted by Obamba and Mwema (2009), while the economic dimension of the asymmetry entails staggering material and financial inequalities, the epistemological dimension is concerned with historical and political pre-eminence associated with Western knowledge and knowledge systems, with non-Western knowledge systematically relegated to a peripheral epistemic position.

However, the traditional notion of partnership is shifting from one of external imposition and prescription to 'mutuality' where the interests of collaborative parties are equally respected. As noted by Rosseel et al. (2009), there are signs that Northern partners are willing to transform dubious unequal North-South partnerships from the donor-recipient dynamic into partnerships with shared ownership and decision-making. Given the demand for new forms of cooperation, there seems to be growing consensus on the basic principles of the mode of cooperation,

which includes long-term partnerships, orientation in accordance with the institutional needs and priorities of the partner university in the South, ownership of the project by South partners, sustainability, and donor coordination (Audenhoven, 2015). Audenhoven (2015) notes that the recent restructuring of Canadian, Dutch, Norwegian and Swedish policies and organisations (e.g., SAREC, SIDA, NORAD and the IDRC) with regard to support for higher education and research is the result of a quest for more appropriate models of cooperation. These new forms of partnership have begun to be described in normative or aspirational language using terms such as 'shared interest', 'mutual vision', 'true partnership', etc. Boeren (2013, p. 1) notes that:

> The ownership of higher education cooperation programmes and projects is moving from Northern institutions to those in the South. Increasingly, demands in the South determine how the available donor funds are utilised, and Southern partners are encouraged to take full ownership and responsibility for the funded programmes and projects of their choice. Across the board, the influence of Northern partners on project identification as well as programme management is decreasing. In some programmes, the interests of the Southern partners already prevail, reducing the Northern partners to service providers.

While this is encouraging, implementation of such principles is often marred by a variety of challenges (Downes, 2013). Many scholars point to the complex reality that is often influenced by factors that extend from language barriers and complex management structures to inequitable access to financial resources, libraries, conferences, training, and publishing opportunities, mismatched expectations, a lack of face-to-face interaction, and different levels of methodological sophistication (Bradley, 2008). The rhetoric and discourses of academic partnership conceal the underlying power dynamics and resource inequalities among partners, creating the misleading impression that partnerships are necessarily neutral and mutually beneficial (Obamba and Mwema, 2009). In particular, the imbalance between Northern and Southern partners has been reflected in specific areas such as taking the initiative, interests, agenda setting, power (funding, methodological competence, operational responsibility, interaction), technical support and benefits (Halvorsen

and Nossum, 2016). Bradley identifies the spheres of direct and indirect influence available to donors:

> Albeit deeply troubling, overt donor interference in shaping or restricting the dissemination of research results appears to be relatively rare. Instead, donors exert considerable indirect influence over agenda-setting processes by identifying their programme priorities and determining the structure of the international research funding system. Donors influence agenda-setting processes by requiring the studies that they fund to be explicitly 'policy-relevant'; by concertedly supporting multi-disciplinary, multi stakeholder projects; and by constantly revising their programmatic priorities, which can impede researchers' efforts to embark on long-term investigations (2008, p. 675).

Hence, donors and Northern partners are advised to be aware of these asymmetric power relations and their implications for the success of partnerships in order to reduce structural imbalances through considered inculcation of partnership values in their programmes (Eschuchi, 2009).

Conclusion

This article raises an array of issues that need to be considered in addressing the notion of relevance in academic collaboration schemes. It showed that the design and implementation of such schemes need to address the issue of relevance which refers to the extent to which the objectives of collaboration are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies (OECD, 2002). It is becoming increasingly clear that scientific advances are not the only yardstick to measure the success of North-South academic collaborations; the choice of priorities, sustainability of interventions and investment in local capacity are equally important (Edejer, 1999, p. 438). This article argued that equitable, collaborative agenda setting, collaborative design and decision-making procedures, and consideration of developmental goals as the end product of a collaboration scheme can be used to address issues of relevance. Failure to address relevance concerns limits academics or institutions, who are lured away from addressing local or national priority areas. This can result in the relevance of the cooperation itself being questioned, let alone the outcome (Halvorsen and Nossum, 2016).

Only through mutually desired and designed schemes can academic collaboration succeed in addressing the immediate objectives and ultimate goals of relevance.

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Financing and Resourcing International Collaboration in African Higher Education: Beyond Negotiated Power between the Global North and Global South

Gift Masaiti and Edward Mboyonga

Abstract

This article discusses the financing of international collaboration in African higher education. It notes that mutual aid and the public good are slowly being embraced as the rationale for international collaboration. Drawing on a critical perspective, the article discusses the modalities and effectiveness of resourcing international collaboration which is generally seen as a panacea to revitalise higher education research in sub-Saharan Africa. Collaboration between Africa and Global North countries manifests in international partnerships for research, student and staff mobility, teaching, and funding. While most collaborations have tended to be dominated by Global North partners, South-South collaborations are increasingly taking centre stage. Emerging issues in international collaboration are also identified and the article notes that, in general, the politics of power and control still characterise both North-South and South-South international collaborations.

Résumé

Cet article traite du financement de la collaboration internationale dans l'enseignement supérieur africain. Il souligne que l'aide mutuelle et le bien public sont peu à peu considérés comme la raison d'être de la collaboration internationale. S'appuyant sur une perspective critique, l'article examine les modalités et l'efficacité du financement des collaborations internationales qui sont généralement considérées comme la panacée pour revitaliser la recherche dans l'enseignement supérieur en Afrique subsaharienne. La collaboration entre l'Afrique et les pays du

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Nord se manifeste par des partenariats internationaux pour la recherche, la mobilité des étudiants et du personnel, l'enseignement et le financement. Si la plupart des collaborations ont eu tendance à être dominées par les partenaires du Nord, les collaborations Sud-Sud occupent de plus en plus le devant de la scène. Les questions émergentes en matière de collaboration internationale sont également identifiées et l'article note qu'en général, les politiques de pouvoir et de contrôle caractérisent toujours les collaborations internationales Nord-Sud et Sud-Sud.

Introduction

As the central knowledge-producing institution in any society, research has historically been considered as a university's critical function (Castells, 2017; Cloete, Bunting, and Van Schalkwyk, 2018; McCowan, 2019). In as much as universities should be responsive to local needs, they operate within a global context of knowledge production, and thus cannot work in isolation. Moreover, "meeting the world's development needs is a complex and challenging task that no one institution can effectively address alone. Partnerships are essential to mobilise the world's technical and financial resources in support of development solutions" (Jaumont and Moja, 2019, p. 119). However, collaboration spawns both benefits and risks.

This article examines the financing and resourcing of international collaboration in the context of African higher education with a view to moving beyond negotiated power between the Global North and the Global South in light of the new pattern of South-South collaboration that is slowly emerging. It draws on secondary data through a qualitative desk review of the existing literature. The article begins by examining the context of higher education research in sub-Saharan Africa. This is followed by a discussion on international collaboration in funding as a panacea to revitalise higher education research in the sub-region. The issues emerging from international collaboration in funding and their implications for the growth of higher education on the continent are discussed and the article closes with concluding remarks and suggestions on the way forward.

Theoretical Context

In discussing the shifting landscape of development cooperation financing Teferra (2014) argues that Global North to South financing has been anchored on the Dependency Theory, Development Theory, the World System Theory, and the African Renaissance Theory. All of these theories perpetuate the dominance of well-resourced organisations and countries in the West, leading to arguments in favour of mutual aid and the public good. Masaiti (2022) notes that, mutual aid involves voluntary reciprocal exchange of resources and services for mutual benefit among cooperating partners. Such projects can take the form of political participation and organisational agreements. Mutual aid has been used to provide funding, food, medical care, and supplies, as well as provide relief from disasters.

The Effectiveness of Funding Collaboration in African Higher Education

While international funding collaboration is desirable, a central question has been its effectiveness in higher education. The key issues include ownership, harmonisation, alignment, results and mutual accountability. Many African governments lack capacity to take ownership of and institutionalise cooperation agreements and to ensure delivery of the targeted results as well as mutual accountability.

The Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008) provide guidelines for effective and sustainable donor funding and ownership of cooperating partner financing. Partners should craft development strategies in line with a medium-term expenditure framework and annual budgets. Aid flows should be aligned with national priorities and support should be provided to strengthen capacity. Thus, effective resourcing of collaboration in higher education calls for harmonisation and mutual accountability. However, more than 10 years after the adoption of the Paris Declaration and Accra Agenda for Action, the Global South is still grappling with the question of how best to manage and leverage the resourcing of collaboration in higher education.

Resourcing International Collaboration for Higher Education Research in Sub-Saharan Africa

In the past two decades, the African higher education landscape has been characterised by increased levels of internationalisation in teaching, funding, scholarships and research collaboration and partnerships (Teferra, 2020). However, rapid internationalisation masks significant discrepancies and system malfunctions in financing and research collaboration in

African universities. For example, although the continent's universities have increased their research output, "Africa contributes around one per cent of the global knowledge, the lowest in the world, and yet remains an exclusive consumer which further marginalises it as a producer of knowledge" (African Union, 2015, p. 19). The UNESCO Science Report 2021 estimates that Africa accounts for just 1.01& of global research and development expenditure, 2.5% of global researchers and 3.5% of scholarly publications, compared to the Asian region's contributions of 45.7%, 44.5% and 48%, respectively (UNESCO, 2021). Inadequate public funding for research and development has been identified as one of the primary reasons for Africa's poor research productivity. The question is whether international collaboration can improve the resourcing of African higher education.

International collaboration in the African higher education sector is mainly focused on resourcing research. However, at times there has been a mismatch between the research agendas of partners, lecturers in universities and national development policies (Cloete et al., 2018; Lanford, 2020). The COVID-19 pandemic has also resulted in reduced funding in some fields as well as decreased face-to-face collaboration among researchers.

International Collaboration in Funding as a Panacea to Revitalise Higher Education Research in Sub-Saharan Africa

There is consensus in the literature that collaborations in funding of higher education could strengthen African universities' potential in the areas of teaching, research, scholarship and innovation (Alemu, 2014; Blom et al., 2016; Cloete et al., 2018; Mohamedbhai, 2020). Such collaboration could also make a significant contribution to the achievement of the Sustainable Development Goals (SDGs) (Asare, Mitchell, and Rose, 2020; Asare et al., 2020; British Council, 2021; Hanada, 2021; McCowan, 2019). While education is central in achieving all 17 SDGs, SDG4 aims to achieve quality education and SDG17 calls for increased partnerships to achieve this goal.

Earlier collaborative initiatives in African higher education include the Africa-US Higher Education Initiative of 2007 which funded partnerships to the tune of US15 million, and the Canada-Africa Higher Education Partnership between the Association of African Universities and the Association of Universities and Colleges of Canada (AUCC) (Teferra, 2014).

Other notable initiatives include the Southern Africa-Nordic Partnerships (SANORD) between Southern African countries and Nordic universities, which involved 25 research-led higher education institutions in Denmark, Finland, Iceland, Norway, and Sweden, and institutions in Malawi, South Africa and Zambia; the European Commission-African Union Commission Partnership in Higher Education of 2013, Scandinavian partnerships and Germany's DAAD. The World Bank is probably the most prominent player in the African higher education arena; however, its policies have been called into question (Kelly, 2010). Japan has also shown strong interest in strengthening its strategic partnership with African countries driven, some would say, by the progress made by China and India in this regard.

Global North-Global South Collaboration

This section highlights some of the funding collaborations undertaken between universities in Africa and the Global North. Numerous studies have shown that higher education collaboration between the Global South and the Global North can facilitate the development of research and education capacity, particularly for the universities of the Global South (African Union, 2015; Blom et al., 2016; Carbonnier and Kontinen, 2015; Hanada, 2021; Teferra, 2014; UNESCO, 2021). This is not surprising in light of the massive discrepancies in education standards between the two geographical polities.

Higher education collaboration between Africa and Global North countries manifests in international partnerships for research, student and staff mobility, teaching, and funding. The major northern collaborating partners in higher education include the US, UK, France, Canada, Australia, Germany, Netherlands, Nordic countries, and Ireland. Funding collaboration between Africa and Global North countries can be grouped into three categories: principal programme countries, the colonial legacy and self-selection (Hydén, 2016).

The first typology involves collaboration with 'principal programme countries' such as Nordic countries (usually without any colonial legacy) for development co-operation (Hydén, 2016). In sub-Saharan Africa, the Norwegian Agency for Development Cooperation (NORAD) has supported higher education in Uganda, Kenya, Mozambique, Malawi, Zambia, Tanzania, Sudan, and South Sudan. The NORAD's Programme

for Master's Studies (NOMA) between 2004 and 2006 involved 28 higher education institutions in 18 countries in Africa, Asia and Latin America and 12 Norwegian universities (Holmberg, Gundersen, and Jacobsen, 2015). Through the NOMA programme, a Masters in International Education and Development was developed with a specific focus on HIV/AIDS and education in Africa. This was a collaborative course that was developed by a consortium of universities, namely, Oslo University College, Ahfad University for Women, Sudan, the University of Zambia and the University of Cape Town, South Africa. Proof of the sustainability of this project lies in the fact that the Master's course continues to be offered by African universities even after the end of the partnership (Breidlid, 2013; Holmberg et al., 2015).

The second type of North-South collaboration relates to the colonial legacy (Hydén, 2016). Notable examples include collaborations between countries such as Britain, France, Belgium and Portugal and their former colonies in Africa and other parts of the world. For example, the Commonwealth Scholarship provides various types of educational support to different countries, mainly former British colonies. France and Belgium provide institutional support to many Francophone universities in West and North African countries (Hydén, 2016). Portugal has also provided extensive funding support to universities in Lusophone African countries. Research and funding collaboration among universities in Lusophone countries is coordinated under the auspices of the Association of Portuguese Speaking Universities, whose primary aim is to promote cooperation between higher education and research institutions through exchange of students, professors and researchers, and participation in research projects (Langa, 2013).

Lastly, some Global North countries' partnerships with African countries are based on self-selection (Hydén, 2016). While they do not rest on a colonial legacy, they promote the cultural values of the donor countries. Prime examples include the US' Fulbright Scholarship, Britain's Chevening Scholarships and the DAAD, among others that fund higher education on the continent.

Private Foundations

The role of private foundations as partners in funding higher education in Africa dates back to the early colonial period when the Phelps-Stokes

foundation funded the Phelps-Stokes Commission in 1920 with the aim of developing education for Africans in different parts of the continent. This resulted in the adoption of the *British Educational Policy for Africa* in 1924, which "marked a watershed in African education history" (Berman, 1971, p. 132). Private foundations also played a crucial role in financing the development of higher education institutions in post-independence Africa. For instance, the Lockwood Commission recommended the establishment of the University of Zambia in 1966 that was partly funded by the Carnegie Corporation of New York and the British Ministry of Overseas Development (Lulat, 2005).

Over the past two decades, various foundations especially from the US, have partnered with African universities for collaboration in research, technical support and funding (Hydén, 2016; Ishengoma, 2016; Jaumont and Moja, 2019). Notable private agencies that fund various aspects of higher education on the continent include the Carnegie Corporation of New York, the Rockefeller Foundation, Kellogg Foundation, Hewlett Foundation, Mac Arthur Foundation, Andrew Mellon Foundation, and the Ford Foundation, among others. In 2010, seven American foundations partnered with African universities to strengthen the capacity of higher education in nine countries: Ghana, Egypt, Kenya, Nigeria, Madagascar, Mozambique, South Africa, Tanzania and Uganda. This was to be achieved through provision of training and technical assistance, and financial support to individual universities for infrastructure development, upgrading information technology and communication, and enhancing capacity through expansion of postgraduate research (Cloete, Bunting, and Van Schalkwyk, 2018). Through this partnership, American foundations became the largest single donor, and allocated US$300 million by 2010 (Hydén, 2016), which increased to about $4 billion granted through 13 565 grants between 2003 and 2013 (Jaumont and Moja, 2019).

Currently, private foundations "are the top grant-making contributors to higher education on the continent" (Jaumont and Moja, 2019, p. 105). The report on *Investments in Higher Education and Research in Africa* which traced the funding activities of the Carnegie Corporation from 2010 to 2019 reveals that the organisation spent $134.43 million to strengthen higher education and research capacity on the continent (Madhani, 2021). Of the 164 grants disbursed, African universities and research institutions as well as academic and higher education associations and

membership organisations received the majority (59%) of the funds. The report further highlights that "African universities received $47.6 million, which was 35.4 percent of the total grant dollars spent" (Madhani, 2021, p. 13). Among the top grantees on the continent, the University of Ghana received the highest amount of funding amounting to $11.77 million (see Table 1 below).

Table 1: Top 10 African grantees of Carnegie Corporation from 2010 to 2019

Ranking	Name of institution	Grant received ($ million)	No. of grants
1	University of Ghana	11.77	11
2	University of Cape Town	9.50	8
3	Makerere University	8.56	9
4	University of the Witwatersrand	7.70	4
5	African Population and Health Research Centre	7.25	4
6	University of Pretoria	6.84	9
7	Council for the Development of Social Science Research in Africa	4.9	6
8	Regional Universities Forum for Capacity Building in Agriculture	4.15	6
9	African Institution for Mathematical Sciences	2.75	3
10	Trust Africa	2.06	3

Source: Madhani (2021, p. 10).

Other European foundations such as the Wellcome Trust have continued to collaborate with African universities by funding projects aimed at addressing challenges related to climate change, infectious diseases and mental health through scientific research. The trust has provided £25 million (US$34 million) for a medical research partnership between the University of Malawi College of Medicine in Blantyre and the Liverpool School of Tropical Medicine, UK which runs from 2018 to 2023 (Nordling, 2021). This partnership, dubbed the Malawi-Liverpool-Wellcome Trust Clinical Research Programme (MLW) is now in its 27th year and thus symbolises long-term research funding partnerships between North-South institutions. African universities also benefit from financial collaborations with multinational corporations like Coca-Cola, Mastercard and Microsoft, among others. For instance in 2014, Mastercard partnered with the African Institute of Mathematical Sciences (AIMS), providing

$25 million to support postgraduate training in mathematical sciences in Africa through the Next Einstein project (AIMS, 2022). This has enabled economically disadvantaged women and youth to attend postgraduate training at any of the AIMS centres in Senegal, Ghana, Cameroon, Tanzania, and Rwanda.

South-South Collaborations

We have divided South-South research collaboration into two categories: inter-continental and intra-continental research. We consider South-South intercontinental collaboration as collaborative efforts among African, Latin American and Asian universities. While Asian countries like China and Japan are highly industrialised, we categorise them as South countries based on the 1955 Bandung Conference that referred to collaboration between Africa and Asia as South-South cooperation. Although countries like China have made relatively good progress, some sections of their population are still trapped in poverty. The Bandung Conference identified issues of mutual interest between Africa and the Asian giants and agreed to formulate development agendas based on South-South cooperation.

Inter-continental funding and research collaboration

The African Consensus of 2011 calls for strong South-South cooperation as a strategy to enhance sustainable development in Africa through full implementation of the agenda for aid effectiveness in developing countries (African Union, 2015; Besharati, 2013). South-South cooperation has its historical roots in the first Asian-African Conference held in Bandung, Indonesia, in 1955. Since then, there have been several collaborative ventures between African and Asian countries in different spheres, including higher education. The African-Asian (AA) University Dialogue for Educational Development is among these collaborations. Launched in 2004 as an international inter-university research initiative, the network comprises 17 African universities in 12 different countries and 12 Asian ones across six countries. It is spearheaded by the Center for the Study of International Cooperation in Education at Hiroshima University, Japan (Kuroda, 2012). The network primarily aims to foster funding and research collaboration among universities across the two continents as part of the international commitment to 'Education for All'. Its seeks to tackle education challenges and enhance capacity among member

universities through joint research and exchange of academic staff and students (Kuroda, 2012). Although the network was established on the principle of cost-sharing, it relies heavily on UNESCO, the UN University, MEXT (Ministry of Education, Culture, Sports, Science and Technology, Japan), and JICA (Japan International Cooperation Agency) as the major funders and technical partners (Kuroda, 2012; UNESCO, 2012).

At the eighth Tokyo International Conference on African Development (TICAD8) held in Tunisia, Japan announced a pledge of over 30 billion dollars in aid to the continent. This will be used to alleviate food insecurity, support growth post the COVID-19 pandemic and finance the development of more robust regional economies. Japanese Prime Minister Fumio Kishida also committed to seeking fundamental reform of the United Nations Security Council in order to secure a permanent seat for Africa. The conference highlighted the importance of on-going diplomatic, economic and humanitarian engagement in the region. In an effort to implement lasting change, Japan specifically committed to providing training for 300 000 people across the continent over the next three years, in an effort to better equip regional healthcare, higher education and infrastructure development. The funding will also be used to develop the Green Growth Initiative, and the African Development Bank and promote strategies aimed at combating infectious diseases (Brake, 2022).

The Forum on China-Africa Cooperation (FOCAC) is another significant initiative to fund and resource international higher education collaboration with Africa. This triennial assembly of Chinese and African leaders endorses a three-year plan for economic cooperation, including human resource development, and cultural, education and training commitments (King, 2014; Varghese, 2015). In terms of education, the Chinese government primarily focuses on the tertiary level, funding infrastructure projects, Chinese-language instruction, university partnerships, scholarships for Chinese universities, and in-service training programmes (State Council Information Office, PRC, 2021). Africa has received the largest share of Chinese government scholarships. Mohamedbhai (2020) observes that through the FOCAC, the number of scholarships granted to Africa increased from 30 000 in 2015 to 50 000 in 2018, leading to a large increase in the number of African students studying in China, from just under 2 000 in 2003 to almost 50 000 in

2015. Due to this programme, "China is now, after France, the second country hosting the largest number of African students" (Mohamedbhai, 2020, p. 36).

The collaboration between the FOCAC and African universities is also significant in expanding the research capacity of the continent's higher education institutions. For instance, in 2009, China launched a '20+20' scheme to bring together 20 African and 20 Chinese universities for research. African universities have benefitted immensely from Chinese funded projects in education, ICT, agriculture, biological sciences and engineering. There has also been an increase in research collaborations, resulting in joint publications between researchers in sub-Saharan African universities and their counterparts in China. The fast-spreading Confucius Institutes in Africa are the hallmark of collaborations between China and host universities. Their main purpose is to facilitate collaboration and exchange of knowledge and promote the Chinese language and culture.

Given the inadequate funding that characterises Africa's public universities, collaboration with China has been important in revitalising higher education in so far as funding and infrastructure development are concerned. Despite heavy criticism levelled against Chinese development partnerships in Africa, it is evident that such collaboration has helped to transform and expand the African higher education landscape. Mohamedbhai (2020) offers two prominent examples of such development, the Malawi University of Science and Technology in Blantyre, which opened in 2014, and the library at the University of Dar-es-Salaam, Tanzania, completed in 2018 and the largest ever built by China in Africa. As Mohamedbhai rightly observes, "it would have been impossible for ... African countries to put up such infrastructure without China's support" (Mohamedbhai, 2020, p. 37).

Turkey and South Korea have also increased their partnerships with higher education institutions in Africa by providing scholarships to African students, while North Korea has launched initiatives to support Pan-African Universities

Intra-continental funding and research collaboration

There is widespread recognition that increased Global South collaboration in higher education is a vital strategy to harness the expertise and resources required to support research that promotes development (African

Union, 2015; Asare, Mitchell, and Rose, 2020; Cloete et al., 2018). This is particularly critical for sub-Saharan African countries whose education systems generally operate in similar environments and contexts. Therefore, intra-continental collaboration in higher education may foster sustainable ways of enhancing the quality of teaching, learning and research across countries with similar contexts (Asare et al., 2020, p. 7).

Regional collaborations have become a widespread phenomenon in Africa, and their importance is highlighted in various regional developmental agendas that consider collaboration as an instrument to enhance the quality of higher education on the continent (African Union, 2015; Alemu, 2014; Cloete et al., 2018). Regional collaboration is central to the African Union's 2015 *Continental Education Strategy for Education*, which aims to foster development in all areas of education (African Union, 2015). This strategic document is anchored on 12 main objectives and calls for the harmonisation of education and training systems as key to the realisation of intra-Africa mobility and academic integration. In terms of research collaboration, Strategic Objective 9 aims to revitalise and expand tertiary education, research and innovation to address continental challenges and promote global competitiveness. As discussed below, regional funding and research collaborations are one way of achieving such goals.

The African Research Universities Alliance (ARUA) aims to stimulate regional collaborations on the continent to enhance research and expand funding (ARUA, 2020). It is a replica of the UK Russell Group of universities that aims to promote excellence in research among Africa's leading universities. Launched in Dakar in March 2015, it consists of network of 16 leading universities to enhance the quality of research conducted in Africa by African researchers. A central element of this alliance has been fostering student mobility, especially for postgraduate studies, as well as lecturer mobility across 15 partner centres.

The ARUA adopts a Pan-African approach to address the challenges of funding and research development on the continent. In terms of financial resource mobilisation, the group depends on the participating universities to contribute from their limited resources to generate a critical mass that could more effectively support research. However, it also collaborates with several funding partners, including the Carnegie Corporation of New York, the Open Society Foundations (OSF), and the

Association of Commonwealth Universities. It also works in partnership with the University of Glasgow in the UK and the PLuS Alliance between the Universities of Arizona State University, King's College London and the University of New South Wales, Australia. To date, the group has established more than ten centres of excellence across member countries in different research areas, including non-communicable diseases, water and food security, energy, migration, good governance, post-conflict societies and notions of identities, among others (ARUA, 2020).

The African Centers of Excellence (ACE) Project is facilitated by the Association of African Universities under the aegis of the World Bank. Each beneficiary centre receives an investment of up to US$8 million (AAU, 2016). The project aims to facilitate the development of African skills in Science, Technology, Engineering, Mathematics (STEM), Agriculture and Health Science by strengthening the delivery capacity of the centres of excellence which are selected on merit to implement the agenda.

The project was first launched in 2014 when 22 centres of excellence were established in West and Central African universities based on their potential for education and research excellence as well as solid governance and management (World Bank, 2020b). The second phase (ACE II) was launched in East and Southern Africa with 24 centres across Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda and Zambia. The ACE currently comprises 46 centres across 20 countries (AAU, 2021; Bentil, 2020). Overall, it has been a successful research and funding collaboration project in African higher education that has facilitated the sharing of resources to address critical skills and applied research needs across the countries. As at April 2021, the ACE project had 2 014 PhD students and 6 352 MSc students across the 46 centers in 20 countries (AAU, 2021). Furthermore, since the start of the project, about 13 616 students have enrolled in STEM, health, agriculture and related fields.

Private university-driven collaborations are another significant trend that aim to source funding and increase research output on the continent. The literature notes that the unprecedented growth of private universities in Africa has not translated to increased research output (Banya, 2001; HEA, 2020; Levy, 2009; Varghese, 2006). In general, private universities focus on teaching and lack a research culture. However, this trend is slowly changing in some countries. The impact of private higher education in sourcing and financing research collaboration remains underexplored.

Many have argued that the massification of private higher education has been driven by the profit motive but, at the same time, these institutions have been increasingly regulated by quality assurance bodies. In seeking to improve their operations, they have been collaborating with other key stakeholders, including the public higher education sector. We argue that the sector has not only emerged as a means of broadening access but is also contributing to research and development on the continent through its ties with its funding partners. A notable example is Covenant University in Nigeria which hosts the Covenant Africa Centre of Excellence in Applied Informatics and Communication (CApIC-ACE) under the World Bank-funded African Centre of Excellence IMPACT project (ACE-IMPACT) (Covenant University, 2019). Through this collaborative funding, the university offers scholarships to students from West and Central Africa to undertake Masters and PhD degree programmes in Bioinformatics, Computer Science, Biochemistry and Information and Communication Engineering.

Emerging Issues in International Higher Education Collaborations in Sub-Saharan Africa

The politics of power and control characterise international collaborations, usually privileging the status of Global North partners who are the sources of funding (Alemu, 2014; Carbonnier and Kontinen, 2015). For instance, a study conducted in Zambia, Malawi and Zimbabwe suggests that there is "limited space given to Zambian researchers to define their interests and scope of research within a collaborative framework where they are often the invited parties rather than initiators. Unequal power relations tend to be at play in such situations" (HEA, 2020, p. 54). Consequently, some programmes are not relevant to the African context as partners from developed countries usually impose them for their own learning purposes. For instance, through the Confucius Institute, a Bachelor of Arts in Linguistics and Chinese was introduced at the University of Zambia in 2014. Despite government support, the programme has recorded low enrolment, with only six new students in the 2021 academic year (USAID, 2021). This is likely due to a lack of interest among students. A key underlying factor is that "in higher education, the partners from the Global North often come into a partnership better equipped (than partners in the Global South), with a larger capacity to engage, and with a direct relationship to the external funder" (British Council, 2021, p. 26). As long as African universities continue to rely heavily on their Global North counterparts to finance their research projects, it will remain practically impossible to achieve equitable relationships and mutual benefits.

Furthermore, there have been allegations of partners from Global North countries neglecting ethical issues, yet being protected by their home countries. For instance, an article in Springer Nature, a science newspaper, noted that a programme director of a Malawi-UK research partnership funded by Welcome Trust remained in employment despite allegations of misconduct to which he pleaded guilty (Nordling, 2021). While the incident occurred in Malawi, the disciplinary hearing was held in the UK and the decision to assign him another role in the project was at the behest of the Liverpool School of Tropical Medicine without any input from the host institution, the University of Malawi. This incident supports assertions in the literature that southern-based institutions and researchers lose control of the research agenda and ownership because leadership of collaborative projects is skewed in favour of Global North partners (Hydén, 2016; Ishengoma, 2016; Kasozi, 2016).

North-South funding collaborations, especially in research, are also not immune to unfair practices relating to authorship of study results. For instance, even though international collaboration in Zambia has increased research output in the health sciences (HEA, 2020; Masaiti and Simuyaba, 2018), concerns have been raised about the fair distribution of authorship with African researchers omitted from authorship although they made a significant contribution to the research (Matenga et al., 2019). Several studies have confirmed that publications arising from collaboration between researchers in the Global North and Global South are highly skewed in favour of the North, demonstrating the unequal power dynamics prevailing in knowledge production (Alemu, 2014; Asare et al., 2020) (See Table 3 below).

Table 3: Top 5 Countries with Sub-Saharan Africa (SSA)-Based Researchers as First Author of Publication in English

Country Collaborating with SSA	No. of publications	First author based in SSA	First author not based in SSA
USA	146	39	107
UK	142	44	98
Netherlands	56	40	16
Canada	39	14	25
Australia	31	18	13
Other countries	115	53	62

Source: Asare et al., 2020, p. 11

Table 3 above shows the top five countries which collaborate with African scholars when it comes to publications. The results clearly indicate that the Global North dominates when it comes to collaborations and joint publications. Even when the content and context of the paper is based on African discourse, the publication will most likely be published with the first author coming from the West, signifying skewed power relations.

A further risk identified is that universities in African countries will lose their qualified researchers as a result of collaborations. In particular, there are concerns that collaboration with bilateral and multilateral agencies pulls researchers away from their home universities because of their higher salaries, with negative effects on the long-term research sustainability of these universities. While multilateral agencies can help to improve universities' research capacity, it is also true that "leading researchers [in African universities] easily turn into consultants for multilateral and bilateral aid agencies out of necessity and opportunism" (Carbonnier and Kontinen, 2015, p. 158).

Furthermore, despite the existence of several African funding collaboration initiatives, studies have shown that there is minimal research output through regional collaborative research among sub-Saharan African countries as most researchers prefer global networks (Alemu, 2014; Blom, Lan, and Adil, 2016; Cloete et al., 2018; Onyancha and Maluleka, 2011). For example, it is estimated that that as at 2013, about 80% of the US$85 million research funding at Makerere University (Uganda) came from international donors, mainly Global North countries (Kabozi, 2016). A

World Bank report on research productivity in STEM fields undertaken in Africa from 2002 to 2012 shows that "inter-African collaboration (without any South African or international collaborator) comprises 2 per cent of all East African research, 0.9 per cent of West and Central Africa, and 2.9 per cent of Southern Africa" (Blom et al., 2016, p. 9). Key to this is that "publications involving collaboration between African-based researchers and those based outside the region are far more likely to attract funding (31 per cent) compared with publications involving collaboration among researchers across African countries (3 per cent)" (Asare et al., 2020, p. 9). Given limited funding of research in the sub-region, African researchers will continue to depend on Global North partners.

Notwithstanding the above concerns, academic collaboration has undoubtedly enhanced research and the citation impact of publications in Africa (Asare et al., 2020; Breidlid, 2013; Matenga et al., 2019; Onyancha and Maluleka, 2011). For instance, increased international funding partnerships at Uganda's Makerere University between 2006 and 2012 led to increased research output, which accounted for more than 70% cent of the countries' total publication output (Cloete et al., 2018). Key to this is the move towards research collaboration between North and South anchored on mutual partnerships among universities. Hanada (2021) observes that Norwegian higher education collaboration has shifted from aid programmes (NUFU and NOMA) for Global South universities to more mutual collaborations under the auspices of NORHED. Hanada (2021) argues that this shift is exemplified by the South Ethiopia Network of Universities in Public Health (SENUPH), a collaborative research venture consisting of the University of Bergen in Norway and four Ethiopian universities, Hawassa, Dilla, Wolaita Sodo, and Arba Minch. The mutual partnership is reflected in the design of the joint PhD programme between the University of Bergen and Hawassa University. The latter undertook full authorship of the programme to ensure that it is responsive to the Ethiopian context (Hanada, 2021). This offers insight into how to orient international higher education collaboration towards a more ethical and mutual approach, which is crucial to the sustainability of research and development in African universities.

Conclusion

This article analysed the financing and resourcing of international collaboration in African higher education. Such collaboration between Africa and Global North countries manifests in partnerships for research, student and staff mobility, teaching, and funding. The major Global North collaborating partners include the US, UK, France, Canada, Australia, Germany, Netherlands, the Nordic countries, and Ireland. Funding collaboration between Africa and the Global North countries can be grouped into three categories: principal programme countries, the colonial legacy and self-selection. We divided South-South research collaboration into two categories: inter-continental and intra-continental research collaborations, with Asian countries like China and Japan categorised as South countries.

These collaborations have significant implications and consequences. The politics of power and control characterise international collaborations, usually privileging the status of Global North partners who are the sources of funding. North-South funding collaborations, especially in research are also not immune to unfair practices relating to authorship of study results. Another risk identified is that universities in African countries tend to lose their qualified researchers to brain drain.

Furthermore, despite the existence of several African funding collaboration initiatives, studies have indicated that there is minimal research output through regional collaborative research among sub-Saharan African countries as most researchers prefer global networks involving the West. Notwithstanding these limitations, academic collaboration has undoubtedly enhanced research and the citation impact of publications in Africa. However, this conversation should go beyond negotiated power and countries and institutions should formulate policies to prevent the unfair practices which characterise these financial partnerships.

It is also worth noting that, although African countries have looked to the West for well-resourced academic collaborations, there has been an increase in inter-country regional collaboration and South-South collaborations. Nonetheless, it appears that the Global North's hegemony will continue for the foreseeable future.

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Academic Collaborations in Asia: With Special Emphasis on India

N.V. Varghese

Abstract

No country enjoys a monopoly on the production and transaction of knowledge. Academic collaborations among countries and between institutions have increased in recent decades. The reason seems to be that papers co-authored with international academics are not only cited more often but also have higher impact than single author publications. This article shows that although the Asian countries have a tendency to look westward, academic collaborations among higher education institutions in these countries are on the increase. These have evolved in three distinct but related stages: a) collaborations for national capacity development; b) collaborations as part of the globalisation process; and c) collaborations to enhance academic credibility and national institutions' global ranking. The article also discusses the emergence of new institutional structures to promote regional collaborations and the role of diaspora in promoting research collaborations in the region.

Résumé

Aucun pays ne jouit d'un monopole sur la production et la transaction des connaissances. Les collaborations académiques entre pays et entre institutions se sont multipliées au cours des dernières décennies. La raison semble être que les articles co-écrits avec des universitaires internationaux sont non seulement plus cités, mais ont également un impact plus important que les publications d'un seul auteur. Cet article montre que si les pays asiatiques ont tendance à se tourner vers l'ouest, les collaborations académiques entre les établissements d'enseignement supérieur de ces pays se multiplient. Celles-ci ont évolué en trois étapes distinctes mais liées : a) collaborations pour le développement des capacités nationales; b) collaborations dans le cadre du processus de mondialisation; et c)

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collaborations pour améliorer la crédibilité académique et le classement mondial des institutions nationales. L'article traite également de l'émergence de nouvelles structures institutionnelles pour promouvoir les collaborations régionales et du rôle de la diaspora dans la promotion des collaborations de recherche dans la région.

Research collaboration and knowledge production

Knowledge is a global public good (Stiglitz, 1999). Although most institutions that produce knowledge are national, the knowledge crosses national boundaries (Bourne, 2000) and enjoys universal appeal. Knowledge production traditionally relied on universities and their research and development (R&D) activities. Given that they are publicly funded, they focused on basic research (OECD, 1999). This approach is aligned to Mode 1 knowledge production. However, it is increasingly recognised that knowledge is produced collaboratively. Unlike Mode 1 knowledge production which is discipline-focussed, individually-based and university-centred, Mode 2 knowledge production is transdisciplinary, heterarchical and group-based (Huff, 2000; Gibbons et al., 1994). It thus offers more scope for collaborative research and knowledge production.

Neave (2002) notes that the major share of R&D activities has been undertaken in universities in developed countries like the United States (US) and United Kingdom (UK), national organisations such as the Centre National de la Recherche Scientifique (CNRS) in France or national academies independent of the higher education system as in the former USSR. However, in all instances, it was carried out in collaboration with non-university R&D institutions.

Not only the patterns but also the capacity for knowledge production vary among countries, leading to a knowledge divide. The UNESCO Science Report of 2021 notes that countries in the North American region have the highest number of researchers per million people (4 432), while those in the South Asian (263) and African regions (124) have the lowest. Furthermore, countries such as China and India, with the largest higher education sectors, remain at the lower end with 1 307 and 253 researchers per million people, respectively (UNESCO, 2021).

Nobel Prizes are awarded to those who make a substantial contribution to knowledge production through their engagement in basic research. Disparities in the distribution of such prizes may be a good indicator of variations in national capacity for knowledge production. An analysis of the countries of origin of Nobel laureates indicates that they are concentrated in selected developed countries which have a high density of researchers. According to the Nobel Prize Foundation, 40% of the 1 975 prizes awarded to individuals and institutions in the 120 years of its existence were awarded to Americans, with a large proportion of the remaining ones being conferred on Europeans. It is important to note that more than 25% of the research scientists working in the US are from other countries. Similarly, about 35% of all US recipients of Nobel Prizes have been immigrants to that country. This suggests that research collaboration and eventual migration have assisted the US to establish and retain its supremacy in scientific research and innovation.

Cross-border collaboration and co-authored publications have become an increasing trend in R&D activities. In 2017, nearly 60% of articles in the *Nature* Index were the result of international collaboration (Wagner et al., 2019). Aman and Botte's (2017) analysis of 92 820 articles found that the proportion of articles produced through international research collaboration increased from 14.1% in 2002 to 21.7% in 2013. One of the incentives to collaborate is that co-authored papers, especially those involving cross-border authors, are cited more often than single authored publications. Furthermore, multiple author papers are more likely to be accepted for publication by high-impact journals (Wyne, 2015). A major share of the scientific papers published in the US, UK, France, Germany, Australia, New Zealand and Canada is co-authored. The figures for the Asian region are lower, with China at 23% and India at 18.9% (UNESCO, 2021).

A further trend is that the traditional mode of knowledge production that emphasises basic research and disciplinary boundaries is giving way to application-oriented and trans-disciplinary research (Nowotny et al., 2002). The quest to secure favourable world rankings has led to universities paying more attention to research. Moreover, corporate funding pushes many institutions to focus on application-friendly R&D activities to foster innovation and economic growth (Hawkins, 2015).

No country enjoys a monopoly on the production and transaction of knowledge. Academic collaborations among countries and between institutions have become necessary to ensure a broad base for R&D activities and knowledge production. This article analyses Asian

universities and higher education institutions' initiatives to promote academic collaboration. In general, the countries in this region have looked to the West for academic orientation and collaboration. However, more recently, many have started establishing collaborations with countries within the same region. In other words, regional academic collaboration is an emerging trend in the Asian context. This article analyses some of the features of such collaboration.

The following section examines trends in Asian countries' international collaborations with regard to R&D. Section three presents a detailed discussion on strategies to promote such collaborations, while section four focusses on the government of India's initiatives to strengthen academic collaboration. This is followed by a brief discussion on the funding of these efforts in section five. The final section draws conclusions.

2. Asian countries and international academic collaborations

Surveys on internationalisation conducted by the International Association of Universities (IAU) (Egron-Polak and Hudson, 2014; Marinoni, 2019) have found that North America and Europe are considered priority regions for academic collaboration by all other regions, including Asia. Thus, less-developed and Asian countries have looked westward. Most academic collaborations forged by institutions in Asian countries have been with higher education institutions in Europe and the US. It is also interesting to note that IAU surveys show that Asia and the Pacific is the top priority region for North American collaborations and the second most important for European institutions.

Asian countries' international academic collaborations evolved in three distinct but related stages: a) collaborations for national capacity development; b) collaborations as part of the globalisation process; and c) collaborations to enhance academic credibility and national institutions' global ranking.

Collaborations to develop national capacity

The initial focus of international academic collaborations was promoting higher education development in many less-developed countries. This involved establishing higher education institutions as well as training teachers to transact curriculum and promote research. While the former involved cross-border flow of funds to build facilities, the latter often involved cross-border flow of students under study abroad programmes. Developed countries and funding agencies regarded international cooperation and collaborations as an extension of foreign aid and technical assistance which played an important role in the development of higher education in less-developed countries (Varghese, 2010). This was part of a strategy to create a competent state by nationalising and indigenising development (Atal, 1995). Multilateral agencies such as the World Bank and the European Union (EU), and bilateral agencies in countries such as the US, Canada, France, and the UK as well as private foundations played a supportive role in creating higher education facilities in many less-developed countries and training their future teachers in developed countries' universities.

Various scholarship programmes were crucial in promoting cross-border flow of Asian students. The USAID and the Fulbright programmes, Colombo Plan, British Council and Commonwealth scholarship programmes, and the German Academic Exchange Service, commonly known as DAAD, are examples of initiatives to promote cross-border education (Altbach and Knight, 2006). Funding support for student mobility was part of the projects mediated through government-to-government cooperation programmes (Knight, 2006). Non-governmental agencies also played a role in some countries, especially in Africa. In some instances, foreign private funding of research accounted for a major share of national R&D funding.

At this stage, the priority was knowledge transaction to develop teachers and create national capacity to offer higher education programmes. Countries such as Malaysia, Pakistan, and India sent a large number of students to the UK and US for Master's and doctoral programmes, to prepare them to become faculty members back home. One of the factors that promoted international collaboration was the fact that the leaders of the majority of newly-independent countries (57% of the 113 countries surveyed) had been educated abroad (Spilimbergo, 2009) and realised the advantages of collaborations with developed countries to develop national capacity. Such collaborations also assisted newly-independent Asian countries to develop national capacity to prepare policies and plans, and to create institutional infrastructure to educate citizens at university level. Many international agencies such as USAID supported infrastructure

development in less-developed countries, especially during the post-independence period (McMaster et al., 2019).

Collaborations for the global market

The emergence of the knowledge economy shifted the focus of educational priorities from national concerns to global markets. Science, technology and innovation became the driving forces to create knowledge and employ it to enhance economic growth and national competitiveness. Economic globalisation stimulates the internationalisation of knowledge production, giving rise to academic globalisation. A further aspect of R&D activities in the context of globalisation is the establishment of centres of excellence within universities (OECD, 1999) that conduct research in critical economic fields. Many research collaborations were facilitated through such centres.

Reduced public funding and support accompanied by outsourcing of services compelled many institutions and academics to seek alternative support. Knowledge production for industrial use became an attractive and rewarding investment for the private sector. The globalisation process and the advent of the Internet fostered the rapid expansion of cross-border research collaboration, as is evident in the growing number of collaborative publications (Marginson, 2018).

Knowledge production to promote economic growth and social development enhanced universities' relevance. The skills and know how required to compete in knowledge economies were different from those needed in manufacturing-based economies. Therefore, the traditional framework of knowledge production centred around the public sector gave way to market interventions. Knowledge production, especially in developed countries, is critical for economic progress and it has become an important corporate concern (Sanyal and Varghese, 2007). Consequently, corporate investment in R&D activities and knowledge production has increased.

The orientation of R&D activities shifted from the traditional focus on discipline-based basic research to trans-disciplinary approaches. This opened the door to collaboration among researchers from different disciplines and between universities and scholars from across the world (Nowotny et al., 2002). The notion that international collaboration promotes innovation through the exchange of ideas and perspectives gained traction. Multi-national corporations' R&D departments also

sought collaborations, especially in domains such as computer technology, pharmaceuticals, electronics, chemicals, and automobiles.

Knowledge production thus became a market-mediated activity to promote skills production for the global labour market. Many collaborative arrangements have been motivated by economic interests and their revenue-generating capacity (OECD, 2008). Market-based and commercial approaches have given birth to franchising and twinning arrangements, the establishment of branch campuses and promotion of cross-border student mobility. Cross-border student mobility's revenue-generating capacity has made it an attractive option for many universities in the developed world. The academic prestige of universities in the host countries as well as post-study employment opportunities abroad encouraged many Asian households to opt for their children to be educated in developed countries (Varghese, 2021). Not surprisingly, the major student sending countries were in Asia, with China, India and the Republic of Korea topped the list for a long period of time. This pattern was different from the earlier period when most study abroad programmes were supported by scholarship programmes and most graduates returned to their home countries.

Student mobility, especially for doctoral and post-doctoral studies, and teacher mobility are at the centre of research collaborations. For example, 1 093 Indian students were enrolled in doctoral programmes in Australia and nearly 17 000 in such programmes in the US in 2016 (G08, 2017). Similar trends are apparent in the UK and other countries. It should be noted that research collaborations, especially in the fields of science, technology, engineering and mathematics (STEM), offered national benefits to participating countries. The globalisation of scientific research broadened the pool of researchers with different backgrounds (Hwang and Ahrens, 2020). International cooperation in the context of globalisation is evident in the dramatic rise in both the number of internationally co-authored publications, and such articles as a proportion of all those published in scientific publications (Marginson, 2018).

Collaborations to improve the ranking of national institutions

In recent years, higher education institutions have pursued international academic collaborations in order to enhance their academic credibility and global recognition. Such collaborations offer access to specialised

knowledge and research facilities, increased academic credibility and the global visibility of individuals and institutions. The launch of the Academic Ranking of World Universities (ARWU) in 2003 and the Times Higher Education (THE)-QS ranking in 2004 prompted universities to seek ways to improve their global ranking. For example, most countries in Asia were worried about their institutions' low ranking. In September 2005, Malaysia's top two universities slipped by almost 100 places (Hapsah, 2011). The responses varied from criticism of the methodology to strategies to strengthen R&D activities. Some Asian countries also started their own national rankings.

The establishment of world class universities (Salmi, 2009) became a priority in many Asian countries. It was recognised that research is important not only for knowledge production but also to attain academic credibility. China's Ministry of Education launched 'Project 211' and 'Project 985' to promote research universities, while India adopted a programme to establish 20 world class Institutions of Eminence (IoE) in the public and private sectors. The Brain Korea 21 (BK21) project and the Centre of Excellence in the 21st Century (COE21) initiatives in Japan focus on R&D activities to enhance higher education institutions' academic credibility. Such initiatives encouraged collaborative efforts with higher ranked institutions.

Furthermore, lower ranked Asian institutions have been eager to collaborate with higher ranked institutions abroad. International publications are important to improve global ranking, and research collaborations with high-ranking universities help to increase the number of international publications and position on the rankings. India's National Policy on Education 2020 (NEP 2020) recommended that universities ranked within the top 100 establish branch campuses. Many universities' mission statements include international cooperation and collaboration and offices or administrative units have been set up to promote such cooperation (Al-Youbi et al., 2020). Thus, pressure on national universities to improve their global ranking led to concerted efforts to enhance the quality of higher education, and the number and quality of publications. Global ranking became an accepted benchmark to measure the success of research and knowledge production. Combined with innovations in communication technologies, this resulted in the rapid expansion of cross-border research collaboration. The COVID-19 pandemic increased reliance on technology and the use of online interaction for collaboration.

Regional academic collaborations in Asia

Historically, the East always looked to the West for academic collaborations. This is changing and cooperative projects and research collaborations are slowly but steadily moving towards countries within the region. It is interesting to note that regional cooperation in higher education development is a growing phenomenon in both developed and developing countries (Varghese, 2015). Paradoxically, increased global competition in higher education has facilitated increased cross-border cooperation at the regional level.

The concept of 'regionalisation' of higher education has gained considerable attention in recent years, particularly in light of the Bologna Process which was followed by the establishment of the European Higher Education Area (EHEA) made up of 46 countries. Similar efforts towards regional cooperation have been seen in Latin America where the Inter-American Organization for Higher Education initiated a programme to create a Latin American and Caribbean Higher Education Area. Furthermore, 15 West African countries signed an agreement to promote intra-regional student mobility. This is not a common trend in the Asian region.

Across Asia, multiple organisations have promoted cross-border collaborations through the Association of Southeast Asian Institutions of Higher Learning, the Association of Southeast Asian Nations (ASEAN), Asian University Network (AUN), the Asia-Pacific Quality Network, and the South East Asia Ministers of Education Organization's (SEAMEO) Regional Centre for Higher Education and Development (RIHED). These generally include collaboration around issues of teaching, research, student and staff mobility, and quality assurance (Sakamoto and Chapman, 2010).

International student mobility programmes promote collaborative research. These include the Collective Action for Mobility Program of University Students in Asia (CAMPUS Asia) initiated by the governments of China, Japan and South Korea, the Asian International Mobility for Students (AIMS) programme spearheaded by the SEAMEO/RIHED and the ASEAN Experiential Learning Programmes (AELP) offered by the ASEAN AUN.

South Asian countries account for nearly 5.8% of global scholarly output and India accounts for nearly 88% of South Asian research contributions. South Asian countries, especially Bangladesh, Sri Lanka

and Nepal rely heavily on international collaborative research and this is reflected in their publications (World Bank, 2019). Asian countries have also witnessed a proliferation of R&D institutes independent of universities. The Council for Scientific and Industrial Research (CSIR) in India, the Rubber Research Institute (RRI) of Malaysia, the Metal Research and Development Centre (MIRDC) in the Philippines, and the Singapore Institute of Standard and Industrial Research (SISIR) are examples of institutions that are free to establish collaborations with other research institutions/universities within or outside the country.

In 2012, the Japanese Ministry of Education, Culture, Sports, Science and Technology and the governments of Japan, Korea and China jointly launched CAMPUS Asia. Characterised as somewhat of an Asian version of Europe's Erasmus Programme, it enables student exchange among the countries for short-term studies (a semester) and full-degree programmes. The objective is to establish a higher education network among universities in these countries in order to improve the region's competitiveness in the global academic market and to nurture the development of future global leaders. The AIMS programme promotes student mobility opportunities within Southeast Asia. It emerged from a pilot project involving Malaysia, Indonesia, and Thailand in 2009, and has now been opened to other countries in the region.

The Japan Society for the Promotion of Science (JSPS) became an independent administrative institution in 2003 to promote research and international collaborations. It supports research in all fields of the natural sciences, social sciences and humanities. Its programmes aim to create world-class research hubs within the Asian region and to foster new generations of talented young researchers with both discipline-specific knowledge and communication skills to engage in international collaborative research. The society encourages cross-border research collaborations for cooperative research with colleagues in Japan under the guidance of a senior host researcher. Innovative Asia is another programme initiated by the Japanese government to promote mobility among Master's and doctoral students at Japanese universities. It also offers internship opportunities at Japanese companies, research institutes or government organisations, mainly in the areas of science and technology.

The National Research Foundation of Korea (NRF) was established as a funding agency in 2009. It collaborates with many institutions

outside the country and offers full funding support for the collaborative programmes it initiates. Its Post-Doctoral Fellowship Program for Foreign Researchers targets PhD holders from Indonesia, Mongolia, Philippines, Thailand, Vietnam, Egypt and Tanzania. Another programme established in 2005 aims to create world-class research hubs within the Asian region; this programme is jointly funded by the JSPS of Japan, the NSFC of China and the NRF of Korea

International scientific co-publications are a well-established measure of cross-border research collaboration output. China's National Centre for Science Technology Evaluation (NCSTE) notes that such collaborations helped to increase the number of international publications to 71 000 in 2015, a fourfold increase from 2006 to 2015 (NCSTE, 2020). Most of these collaborations are in the fields of material sciences, engineering and computer sciences. Peking University, Shanghai Jiao Tong University, Tsinghua University and Fudan University play an important role in promoting cross-border collaborations. The Centre for South Asian Studies (CSAS) was established at Fudan University in 2007 to promote research with a focus on economic, political, diplomatic and security issues in South Asian countries.

A number of collaborations between China and the US are among Chinese scientists and Chinese-American scientists living in the US, with the latter tending to be favoured in the co-authorship network. These collaborations have helped China to achieve its place in the top 1% of cited publications in the sciences and engineering (Wang et al., 2013; Hwang and Ahrens, 2020). The other major countries involved in collaborations with China are Malaysia, Iran, India, the UK and Japan. These are mainly in the domains of physics and astronomy, chemistry, agricultural and biological sciences, engineering, health professions and computer sciences (Cheng et al., 2013). The Chinese Academy of Sciences (CAS) and the Indian National Science Academy (INSA) have been collaborating since the 1980s when they set up an exchange programme for scientists. Several individual faculty members from universities in both countries also collaborate.

India has also established several collaborative programmes through its diaspora. Recent programmes launched by the government of India have attracted many Indians settled abroad. It is estimated that around 100 000 Indian professionals apply for US work visas every year (UNDP,

2001) and Indians qualify for a major share of the H1B visa. According to the latest UN estimates, India has the largest diaspora of non-resident Indians (NRIs) and people of Indian origin (PIOs), a total of 31.5 million spread over 146 countries (UNESCO, 2018; UN, 2019). This is a good source of on-going international academic collaborations.

Through its targeted '211' and '985' projects, China has invested heavily in the quality of higher education since the 1990s with a focus on research and graduate studies as well as support for leading universities. It can now boast of co-authored papers with researchers from 156 countries/regions (Liu et al., 2021). China has also improved its position in world university rankings, with Peking University now the highest ranked Asian university.

According to the *Nature* Index, Australia and Singapore have the highest number of collaborative publications in the region. Nearly 70% of publications in Singapore and more than 60% of those in Australia are co-authored, with China and Japan standing at nearly 30% and India at 25% (Cheung et al., 2021).

The percentage of scholars co-authoring papers ranges from 0.15% in both India and the region as a whole to 5-10% in Nepal, Afghanistan, Bhutan, and the Maldives. However, not only are papers produced through collaborations outside the region larger in number, they also have greater citation impact. As noted earlier, India accounts for nearly 88% of South Asia's scholarly contributions (World Bank, 2019).

Indian academic collaborations

International collaborations in the years following India's independence reflected the political commitment to technologically self-reliant economic and industrial development. The establishment of Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Regional Engineering Colleges (RECs) and several medical colleges reflected the government's commitment to self-reliance.

Many technological institutions such as the IITs were established in collaboration with foreign countries. The first, Kharagpur in West Bengal, was established in 1951 with support from foreign countries and it attracted faculty members from the US and European countries. The IIT Bombay received experts and substantial financial support from the USSR through UNESCO, which also offered fellowships to train Indian faculty members abroad. The IIT Madras received similar support and fellowships from Germany, while its counterpart in Kanpur was granted technical assistance by a consortium of nine leading US institutions to set up the institution, its academic programmes and laboratories. The IIT in Delhi was established with the help of the British government. Indian Institutes of Management were established in collaboration with the Harvard Business School.

Many first-generation professors in Indian universities were educated abroad and were exposed to global teaching practices and research. Today, many high-quality institutions have a relatively fair share of faculty members with teaching and research experience in reputed international universities. International collaborations occur through the establishment of facilities to enhance national capacity to produce highly qualified STEM graduates, and promote student mobility and migration of professionals.

India's 1968 and 1986 policies on education were relatively silent on internationalisation and international collaborations. During the 10th five-year plan (2001-06), the University Grants Commission (UGC) articulated the need for internationalisation focusing on cross-border flow of students and introduced a scheme, 'Promotion of Indian Higher Education Abroad (Pinhead)'. The Association of Indian Universities (AIU) formed a task force on internationalisation of higher education in 2004 and in 2009 the UGC prepared a plan for such. The 12th five-year plan (2012-17) included proposals for faculty and student exchange programmes and collaborations for teaching and research. It was also envisaged that an India International Education Centre (IIEC) would be created; however, it seems that this is yet to materialise.

Collaborations were also created through cross-border flow of qualified professionals. The CSIR maintained a National Register of Scientific and Technical Personnel from the 1940s and it included a section on 'Indians Abroad' in 1957 which showed that most highly-qualified Indians migrated to the US and other OECD countries. Many were graduates of prestigious institutions. It is estimated that more than 30% of graduates in STEM and 80% in Computer Sciences from prestigious IITs migrated to the US during the 1990s (GOI, 2002). Many set up research collaborations with colleagues in India.

Indian students that studied abroad during the period following independence mainly acquired degrees to become teachers in Indian

universities. In general, these study abroad programmes were supported by scholarships offered by the sponsoring countries. However, public funding and sponsored scholarships were replaced by household financial support and student loans. This is one of the reasons for the rapid expansion in the number of Indian students studying abroad, with a more than fivefold increase from 66 700 in the year 2000 to more than 330 000 in 2019, making India the second largest student-sending country after China.

Indian students abroad have traditionally been hosted by three countries – the US, UK and Canada - which together accounted for 85% of Indian students abroad in 1995. Although the US share declined from 78.5% in 1995 to 44.4% in 2018, the number of Indian students hosted by the country has increased and it continues to attract the largest number of Indian students. The new player on the scene is Australia which increased its share of Indian students from 5.2% in 2004 to 17% in 2018 (Varghese, 2021).

Canada's Post-Graduation Work Permit Program (PGWPP) and Australia's point-based immigration policy induced student flows and collaborative research activities between these countries and India. These mobility arrangements are promoted by India-US higher education dialogue, strategic partnership agreements between South Korea and India and research collaboration agreements between Canada and India in Science and Technology. Similarly, India has enjoyed Science and Technology collaborations with South East Asian countries since the 1990s. Strong collaborations exist with Malaysia in chemistry and with Singapore in the fields of engineering, technology and physics (Gupta et al., 2002).

The government of India offers fellowships to international scholars specialising in Indian studies through the Indian Council of Cultural Relations (ICCR). The Council has established 108 chairs of Indian Studies in various foreign universities including those in BRICS countries. The chairs in Hindi at Peking University, Beijing, in social sciences at Shenzhen University, Guangzhou and peace studies at the University of KwaZulu-Natal, South Africa are good examples (Varghese, 2015). The AIU has MOUs with university associations in many countries including the UK, Canada, France, Germany, the Netherlands, Australia, Singapore, and Taiwan. These agreements commit to mutual recognition

of qualifications, faculty and student exchange, staff development, collaborative research and publications, and infrastructure sharing.

A noticeable trend is that elite institutions in India seek to collaborate with elite institutions abroad. Collaborations in science, technology, and medical disciplines occur between institutions like the Indian Institute of Science (IISC), IITs, and AIIMS and elite foreign universities such as Harvard University, Massachusetts Institute of Technology (MIT), the Universities of Tokyo, Toronto, and Paris-Sud and the National University of Singapore. Some also maintain significant research engagements in humanities, arts, and the social sciences with universities such as JNU, University of Delhi, University of Hyderabad, Tata Institute of Social Sciences (TISS), Banaras Hindu University (BHU), Jadavpur University, Anna University, and the University of Pune.

Demand is increasing for collaborations with foreign higher education institutions. A study conducted in 2005 (Bhushan, 2005) found that there were 131 foreign-affiliated institutions in India; 59 of which partnered with universities in the UK and 66 with those in the US. Many of these collaborations involved offering courses, mainly in business or hotel management. By 2010, the number of foreign collaborations with Indian higher education institutions had increased to 631. The largest number of collaborating institutions were in the UK (158), followed by Canada (80) and the US (44) (AIU, 2012). However, many of the collaboration arrangements were not approved by the regulatory bodies and were operating without proper approval.

More recently, Indian institutions, mainly in the private higher education sector, have started establishing campuses abroad, either independently or in collaboration with existing national institutions. For example, the JSS Academy of Technical Education is an independent institution in Mauritius while the DY Patil Post-Graduate School of Medicine at Quatre-Burnes was established in partnership with the University of Technology, Mauritius (UTM) in 2009. An off-shore campus of Manipal University operates in Malaysia and Amity University operates campuses in the US, UK, China and Singapore. Four Indian private institutions are represented in the Dubai International Academic City.

For the first time, the national policy on education 2020 (NEP 2020) recommended the establishment of branch campuses of foreign universities in India. It is expected that such institutions should be among

the top 100 in world rankings. The credit transfer systems and Academic Bank of Credits created by the public authorities facilitate cooperation and collaborations with institutions abroad. As noted earlier, India aims to establish collaborations with top ranking institutions in developed countries and many of the government's recent initiatives reflect this interest.

Government initiatives

The government of India has launched several schemes in the recent past to promote international academic cooperation and collaboration with the intention of the country becoming an education hub. The 'Study in India' programme was launched in 2017 with provision for scholarships, while the Global Initiative for Academic Network (GIAN) was established in 2017-18 to attract foreign faculty members to teach for short periods at Indian universities.

The Scheme for Promotion of Academic Research and Collaboration (SPARC) aims to improve Indian higher education institutions' research ecosystems by facilitating academic and research collaborations between Indian institutions and the best institutions in the world in 28 selected nations. Envisaged activities include academic visits, workshops, collaborative research and joint publications. All Indian institutions ranked in the overall top 100 in the India Rankings of the national institutional ranking framework (NIRF) and their partner foreign institutions from the top 500 QS 2020 World University Ranking are eligible for such collaborations. With an allocation of Rs. 4 180 million for a period of two years (2018-19 and 2019-20), the scheme aims to support around 600 joint research projects.

Other initiatives to promote collaboration include the Scheme for Trans-Disciplinary Research for India's Developing Economy (STRIDE) to promote a trans-disciplinary research culture in Indian colleges and universities (UGC, 2019); IMPRINT (Impacting Research Innovation and Technology), IMPRESS (Impactful Policy Research in Social Science) and STARS (Scheme for Transformational and Advanced Research in Fundamental Sciences). The Consultative Group on International Agricultural Research (CGIAR), an international organisation with its headquarters in Montpellier, France works in collaboration with the Department of Agricultural Research and Education (DARE) and the Indian Council of Agricultural Research (ICAR). It has 15 research centres

across the world, including the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Hyderabad, India.

The Department of Science and Technology (DST) under the Ministry of Science and Technology's International Cooperation Division implements science and technology agreements between India and other countries. Bilateral cooperation agreements are in place with 83 countries including Australia, Canada, the EU, France, Germany, Israel, Japan, Russia, and the UK and US. In association with the Academy of Finland, India's Department of Biotechnology has initiated bilateral research cooperation and researcher mobility, mainly at the post-doctoral level between the two countries.

The Indian Council of Social Science Research's International Collaboration Programme facilitates collaboration in the social sciences, including scholar exchange, and joint seminars, publications and research projects between Indian and international organisations and academic institutions.

The Indian Council of Medical Research relies on Indian missions abroad and foreign missions in India for international collaborations. Biomedical research features prominently in all bilateral agreements. There are currently 23 active MOUs/letters of intent (Kumar et al., 2020) that cover, *inter alia*: (i) exchange of scientific information; (ii) exchange of scientists/technicians for training; (iii) joint execution of scientific projects including support for the procurement of scientific equipment; and (iv) organisation of joint meetings, seminars, workshops and symposia in identified areas of cooperation.

The Commonwealth Government's flagship scheme, the Australia-India Strategic Research Fund supports research collaborations between higher education institutions in the medical sciences, biotechnology, and engineering. It also provides funding for international doctoral student scholarships at Australian universities, some of which are allocated to Indian students. A few universities have gone further in providing additional scholarships specifically for Indian nationals as part of their commitment to increase engagement with India and Indian higher education institutions. Some universities have used the government's New Colombo Plan scholarship scheme to organise undergraduate study programmes and internships in India (Freeman, 2017).

Financial resources for cross-border collaborations

The main sources of funding for international research are grants from international organisations and bilateral agencies, business enterprises and national agencies, and institutions' own resources. Public investment in R&D is declining in developed countries. Government's share of total funding of R&D decreased by four percentage points (from 31 to 27%) in OECD countries in the past decade (OECD, 2018). However, the public sector continues to play a dominant role in R&D activities in less-developed countries which lack both financial and human resources to promote research and knowledge production (Sanyal and Varghese, 2007). Funding is one of the major constraints in expanding international research collaborations. The fourth Global Survey by the International Association of Universities identified a lack of funding as the greatest barrier to internationalisation.

According to the UNESCO Science Report (UNESCO, 2021), global spending on research grew faster than the global economy between 2014 and 2018. This is partly due to the private sector's increased engagement in R&D. For example, 75% of R&D expenditure in Asian countries such as the Republic of Korea and Japan is sourced from business enterprises. However, both public and private sources are very limited in this region, especially among the poorer countries and those in the south east (World Bank, 2019).

The Asia Foundation's South Asia Small Grants Program extends funding to civil society organisations in five South Asian countries, namely, Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka. With its headquarters in San Francisco, the foundation operates through a network of offices in 18 Asian countries and Washington, D.C. Its programmes aim to strengthen sub-national governance; increase access to justice and build community security.

The Information Society Innovation Fund (ISIF Asia) supports efforts to develop technical capacity and/or research around Internet network operations and the Internet industry in the Asia Pacific region. A total of USD 295 000 is allocated under this programme across three grant types that support projects in different stages of development: small grants (two grants of USD 30 000); one scale-up grant (USD 85 000) and an impact grant (USD 150 000).

The ASEAN-India research training fellowship (AI-RTF) promotes the mobility of scientists and researchers from ASEAN member countries to India to work at Indian R&D/academic institutions. India awards around 50 fellowships (ranging from two to six months) annually to young scientists and researchers in the priority areas of bio-medical devices related to the COVID-19 pandemic, nano-technology and advanced materials, cyber physical systems, artificial intelligence and ICT. Several scholarships for international students are offered through the Indian Council for Cultural Relations. The General Cultural Scholarship Scheme targets students at all educational levels in 54 countries, and represents one of the most inclusive scholarship funds offered by India. Other scholarships target key neighbouring countries in the region such as Bangladesh, Sri Lanka, and Nepal

Support from the diaspora is another source of funding for international collaborations. China and India are best placed in this regard as a sizeable number of their citizens have settled abroad, many of whom are engaged in research organisations and occupy prominent professional positions. China has a number of programmes aimed at attracting overseas nationals to return to the country. In 1994, it launched the 100 Scholar Program, which by 2007 had recruited 1 417 scholars to return home. Local governments have designed additional policies to attract overseas Chinese nationals (Geng, 2012). The China Scholarship Council, a non-profit institution affiliated to the Ministry of Education, provides financial assistance to Chinese citizens wishing to study abroad and to foreign citizens wishing to study in China. The Chinese government grants approximately 20 000 scholarships annually to international students to study in China.

A common trend is that proposals are submitted jointly and it is believed that collaborative projects with universities from less-developed countries receive preference when it comes to funding. There are two types of collaborations and funding support. Institutions may approach national and international agencies for project funding which may include all activities to be carried out and compensation for staff time. The other financing model involves each participating institution meeting local expenses, while those incurred to participate in project meetings are met from international funds.

Concluding observations

The number of academic collaborations among countries and between institutions has increased in recent decades. One of the reasons seems to

be that papers co-authored with international academics are cited more often than single author publications and enjoy a larger share among high impact articles. This article analysed academic collaboration initiatives among universities and higher education institutions in Asian countries. The analysis showed that although these countries have a tendency to look westward for academic collaborations, recent trends point to increasing regional collaborative arrangements.

International academic collaborations in Asian countries emerged in three distinct but related stages: a) collaborations for national capacity development; b) collaborations as part of the globalisation process; and c) collaborations to enhance national institutions' academic credibility and global ranking. The experience of countries such as China shows that significant investment in promoting research in universities pays dividends and improves national institutions' global ranking. It would seem that it remains an aspiration, if not an obsession, to establish world class universities in some Asian countries. Regionalisation of higher education and research has gained considerable attention in recent years in Europe, Latin America and Africa. Unlike other regions, Asian countries have not yet created an Asian higher education area, although sub-regional organisations are active.

Academic collaborations in Asia are promoted through four different channels, namely, through public institutions established by national governments and programmes initiated by the public authorities, various networks and associations, R&D institutes that are separate from universities and are active in establishing networks and academic collaborations within the region and beyond, and through the diaspora.

It is safe to conclude that, despite active efforts to promote regional academic collaborations, the Asian orientation continues to be westward looking and seeks collaboration with top ranking institutions outside the region. Expanding this extra-regional collaboration network could enable South Asian countries to maximise the value of their relatively modest research bases and augment limited domestic resources. This is particularly relevant for research collaborations supported by multilateral financial institutions that promote extra- and intra-regional initiatives.

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