

Africa-China and China-Africa: From 'knowledge diplomacy' to research training

David Mills and Natasha Robinson
CGHE Seminar 271 22nd February 2022



CENTRE
FOR
**GLOBAL
HIGHER
EDUCATION**

Summary

- Since its formation in 2000, the FOCAC (Forum on China Africa Cooperation) process has seen increased Chinese support for African HE, including scholarships and research collaborations.
- In the five years leading up to the Covid-19 pandemic, the number of African doctoral researchers training in Chinese universities doubled to 8,000. Many were on government or institutional scholarships.
- 26 interviews with Tanzanian, Ghanaian and Ethiopian doctoral researchers in China, and those who have returned to posts in African universities highlight the symbolic and material impact of this Chinese 'knowledge diplomacy' (Vinet 2010).
- This presentation explores how experiences of Chinese research training may be reshaping doctoral supervision and publishing practices in African universities.
- This new cohort of postdoctoral researchers has the potential to influence academic practice in emerging African universities and research ecosystems.

China – Africa diplomacy has a long history

In 1963/64, the Chinese premier Zhou Enlai visited 10 African countries in 1963/64, all of whom had established diplomatic relations with Beijing: Egypt, Algeria, Morocco, Tunisia, Ghana, Mali, Guinea, Sudan, Ethiopia and Somalia. A visit to Tanzania was cancelled because of the Zanzibar revolution.

He insisted on visiting Ghana, despite an attempted coup against Nkrumah days beforehand, saying a ‘friend in need is a friend indeed’.

This visit, along with subsequent meetings by Mao and other Chinese leaders with high-level African delegations, are used by China to express the history and depth of its commitment to African development (but see Carrozza and Benabdallah (2022) on the Chinese ‘selving’ of Africa).



Zhou Enlai with Unidentified African Leader, 1963

About FOCAC and its educational commitments

- FOCAC was set up in 2001 to foster China-Africa political dialogue. Three-yearly high-level meetings announce major bilateral agreements and strategy announcements. There are also annual follow-up meetings.
- IAS at Zhejiang Normal University organises (and funds) the China-Africa Think Tanks Forum (CATTF), a research and policy development platform linked to FOCAC, and has hosted it since 2011.

The 2018 FOCAC summit (with 53 African ministers/heads of state) led to the 8 'major initiatives' Beijing Action Plan. One, 'Capacity Development', included the following:

Train Talents: From 2019-2021, China will provide 50 thousand training opportunities and 50 thousand scholarships to African countries. China will also invite 2,000 young Africans to come for discussions and exchanges, continue to send young volunteers to African countries to strengthen the friendship and understanding between the youth in China and in Africa.



The 2021 FOCAC summit commitments (as set out in a 48 page [white paper](#))

- 4.3.3 China will invite 10,000 high-level African professionals to seminars and workshops.
- 4.3.4 Under the Chinese government scholarship programs, China will continue to train professionals in relevant fields. The two sides will actively explore setting up a China-Africa joint R&D center or lab for road engineering.
- 4.3.5 The two sides will make joint efforts to further improve training programs with the view to align the programs to current developmental priorities of African countries.
- 4.3.9 China will work with Africa to launch experts exchange programs and joint research projects on R&D cooperation; software development; policy planning, monitoring and evaluation.

There are also commitments to vocational education and to creating 800,000 jobs

Growth in African PhD study in China: one outcome of FOCAC policies

- Rapid growth in PhD candidates from different African countries enrolled in Chinese universities over the 5 years to 2020. 2000 new African PhD researchers enrolled in Chinese universities in 2018 alone.
- In 2018, the total number of African students in China was approximately 80,000 (Anshan 2018). PhD enrollments make up around 10% of these.
- An estimated 25-30% of PhD researchers are on full scholarships (from Chinese Govt or Chinese Universities) agreed as part of the FOCAC process. Others are self funding.
- There is a link between PhD registration and visa-status (for some, this is a way of staying in China).

African PhD enrolments in China by nationality (source Shujuku.org)

COUNTRY	2017	2018
Sudan	484	636
Ghana	212	829
Tanzania	187	357
Egypt	367	711
Ethiopia	297	621
Kenya	142	259
Rwanda	80	179
Nigeria	205	540
Cameroon	99	219
Republic of Congo)	44	84
Mali	80	104
Uganda	38	67
Algeria	180	320
DRC	75	120
Benin	27	98
Cote D' Ivoire	67	101
South Africa	20	32
TOTALS	4833	6835

National research systems in Ghana, Ethiopia and Tanzania (from Fosci and Loffreda 2019)

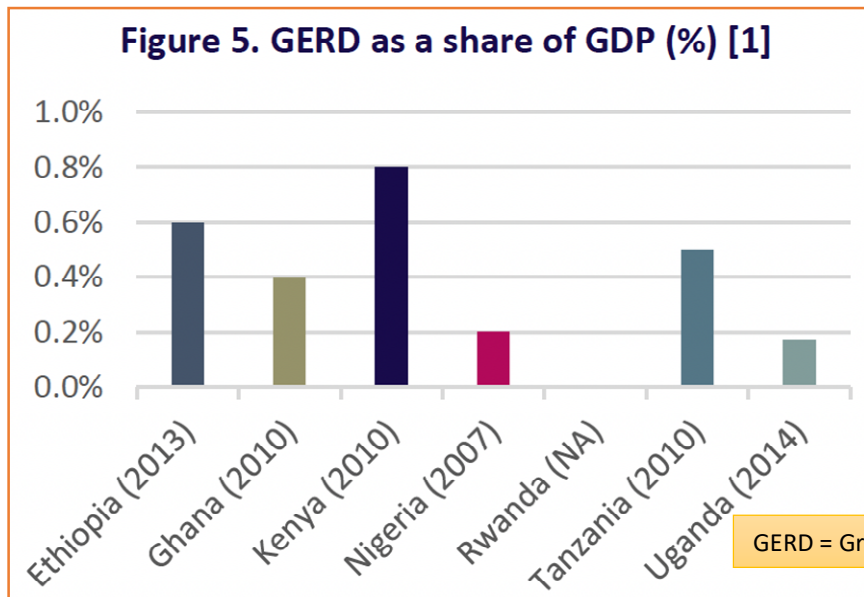
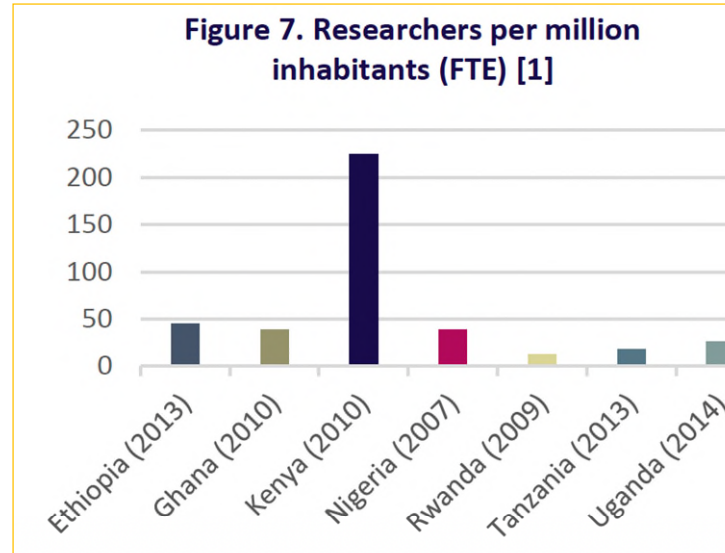
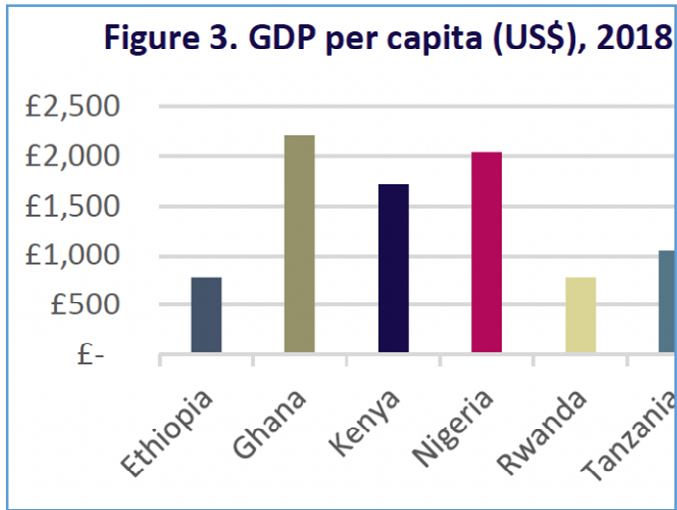


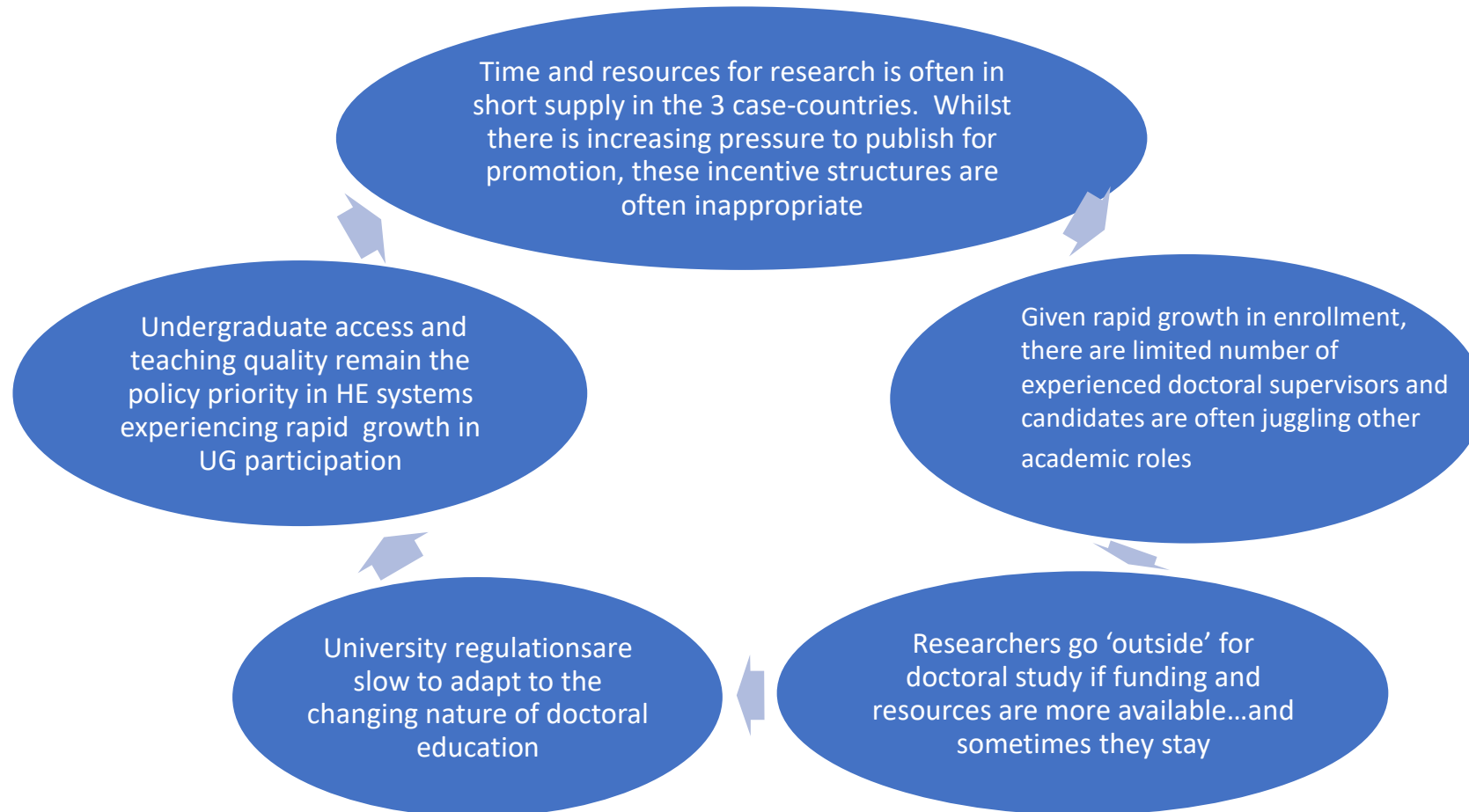
Table 2. National research policies and institutions

Institutional component	Kenya	Ethiopia	Tanzania	Ghana
National research policy	No	No	Yes	No
National STI strategy	No	Yes	Yes	Yes
Ministry or department for research	Yes	No	Yes	No
National research funder	Yes	No	No	No
National mechanisms for research quality evaluation	Yes	No	No	No

GERD = Gross expenditure on research and development

- Despite different levels of per-capita GDP (Fig 3), Ghana, Tanzania and Ethiopia all put less than 0.6% funding into R and D (Fig 5).
- None have a national research funder or a means for assessing research quality (Table 2).
- The numbers of researchers are also very low (Fig 7). By comparison UK has 4000/million and South Africa has 500/millions.

The under-resourcing of research and research training in universities*



* Institutional contexts vary widely: for example, South Africa has a well resourced research ecosystem and an elaborate system of publication subsidies.

Doctoral education in Ghana, Ethiopia and Tanzania

- The drive to enhance the research qualifications of African university academics has prompted growth in doctoral enrollment in many sub-Saharan African countries. Upgrading to qualify for promotion to senior lecturer is described as 'the most significant factor driving expansion in PhD provision' (DAAD, 2018, 18). Heavy teaching commitments and a vocational ethos previously made this less important.
- Ghana: University of Ghana awarded first PhD in 1969 (Agbodeka 1988). Rapid growth in doctoral enrollment from 2010, and there are now 230 doctoral programmes in public and private universities, but concerns about quality and low graduation rates (eg only 150 in 2017). Only 1/3 of Ghana's academics hold a doctorate (Alabi and Mohammad 2018).
- Tanzania: The first University -Dar es Salaam - was founded in 1961. Now 34 universities, of which 22 are privately owned (plus 15 University Colleges). Doctoral enrollments only 440 in 2010, now 1700. Majority registered at Soikone University of Agriculture or the Open University of Tanzania (Kayomba 2016)
- Ethiopia: University College of Addis Ababa founded in 1950. First offered a PhD programme in 1987. By 2016, 10 public universities were offering a total of 140 different PhD programmes . Around 500 PhDs awarded each year, compared to 20 in 2011. (Tamret and Fetene 2021).

PhD registrations in universities in Ghana, Tanzania and Ethiopia 2015 – 2020 (with caveats)

	2015	2016	2017	2018	2019	2020
Ghana	1362	1846	1896	2169	2373	3139
Tanzania	1782	867	1052	N/A	2014	1711
Ethiopia	3135	2725	3369	3774	N/A	N/A

For 2018, approximately 829 Ghanaian, 357 Tanzanian and 621 Ethiopian nationals registered for doctoral study in China. Ratio of China to 'home' registrations is between 1: 3 (Ghana) and 1: 6 (Ethiopia). Completion rates are much higher in China

Sources: UIS (UNESCO) data for Ghana, 'State of Higher Education' reports for Tanzania, Tamret and Fetene (2021) for Ethiopia.

Zoom conversations with a cohort of African PhD researchers and PhD graduates

- Narrative interviews (using Zoom) with 10 Ghanaian, 10 Ethiopian and 6 Tanzanian early career researchers, recruited via social media and snowball sampling, plus Oxford contacts.
- Some still completing their PhD in China, some had returned to Africa. Covid disrupted study for several. Only 4/26 were women in academia
- Some already held university posts in Africa and wanted to 'upgrade' their qualifications. Others left lectureships to study in China.
- A few had studied at national 'flagship' universities, but several held posts in newer technical universities or private institutions, or had done an MSc in China
- Interviews explored the whole PhD journey, attending to student experiences, institutional research cultures and supervisor relations
- Majority were in education and human resource management, plus life and material sciences (especially amongst Ghanaians). None in the humanities.

Why 'choose' China to study for a PhD?

China wasn't my first option for a PhD.. I tried UK, even for Masters, I didn't get that so I did my MSc in Ghana. Then after I tried UK, I tried many other countries, even the US, I did. And then I tried to go to China and for China it was the scholarship element ...honestly in Ghana the perception about China or the Chinese system, Chinese products, Chinese whatever, it is not very positive. Basically the motivation for going to China was the scholarship package (Kofi, Management lecturer in Ghana and Jiangsu University PhD graduate)

Initially I really did not want to go far from home. I wanted to do my PhD in South Africa but looking at the tuition fees, they were quite high. I applied for a full scholarship. And so that is how I landed in Jiangsu University, and I credit it for my academic success... I was so much in a hurry to do in PhD because I had a lecture appointment in private university, and there were issues, they weren't paying salary and I realized that this is the career path I want to take so why don't I go in for PhD and get a better offer from a public institution where I know the government will pay me every month without any problems. (Rebecca, Management lecturer and Jiangsu PhD Graduate)

Perceptions of academic hierarchies and supervisory power struggles in 'home' institutions

What makes it so long to do a PhD in Ghana?

“The interruptions are more of local politics within the university, maybe your supervisor is going on retirements, so you probably have to go and get another supervisor. This is one reason why it can take you some time. Maybe we find it difficult to make the arrangement under another supervisor. And it also happened that just the local politics, here. Sometimes universities are on strike. Sometimes there are people who will say okay, I can no longer supervise you, get another fellow and you cannot get a supervisor sometimes. Students get into problems with their supervisors ” (John, Physics PhD graduate from Univ of Electronic Science and Technology, Chengdu)

“In Ethiopia you have to knock the door first and it is prohibited from making a direct call to your professor. It is a very big crime calling directly to your professor, saying something unless you go to office” (Damtew, HE studies, Zheijiang University)

“Sometimes there are speculations like, you know, when you do a PhD in your country, you know.. this professor will just want to block you because they don't want you to graduate, because you're going to grab their chances ..almost like low level corruption..” (Emmanuel, Tanzanian researcher in HE studies, Wuhan University)

“In your institution you are at the mercy of your professor if he doesn't agree to your publications you can't submit your thesis for graduation and no one will intervene or interfere so it is about what your professor says, that is what you do” (Rebecca, Management lecturer in Ghana)

Other rationales for doctoral study in China

“At the time, fellowships were being given to our university, just from China. So it came to the department. And there was an option for one person to travel from my department for training. So I applied” (Samuel, UDS lecturer, Ghana, PhD graduate from Gansu Provincial)

“The internal arrangements for carrying out research work within Ghana was more cumbersome than what we got from the China so it was ideal to travel there therefore” (John, UDS lecturer and PhD Graduate in Physics)

- Decisions to pursue doctoral study in China was often part serendipity and part opportunity. Some had failed to get scholarships to study in the UK or Europe. Some had already studied for a MSc or been on an exchange to China. Others had just been nominated by their department (Ghana), or were successful in national competitions and exams (Ethiopia). Scholarships were agreed as part of bilateral FOCAC agreements
- Many felt that studying in their own universities meant not only limited supervision support, but also difficult bureaucratic hurdles, and the challenges of combining teaching with research.
- We encountered growing knowledge about, and availability of, scholarships from Chinese universities and the Chinese government. Others talked of straightforward application processes, no/low application fees and no expensive language tests/visa challenges. All of these helped China appealing.

Supervisory cultures

- She was one of the best supervisors, like best teachers. Now, you know, because she was being strict in the class most of the students never liked her. And I think I wanted someone who's strict because otherwise I'll just ended up myself being so slow (Emmanuel, studying Organisation Studies at Wuhan)

Every week he had seminars and you are going to present on the papers he downloaded for you and he wants you to understand the methodology, he wants you to interpret the results, that is what he wanted you to present in the seminars., you are so frustrated, you are so disturbed, because it is entirely a new area you can't even relate to. We had to battle this back forth, back forth, he wasn't giving up and I wasn't giving up either (Rebecca, Jiangsu University, studying Science and Engineering)

I had a research group that was also very, very encouraging. So we have undergraduates and master's students on my research group. And they were also very enthusiastic, because most of them want to have their names on publications, because they needed it for programs in the United States. And they, they were really, really, really helpful in a lot of ways, because at that undergraduate level, they are very good at computer problems. So we were able to say...we want to do this. How do we get this? How do we change this? We were able to get all our research work put on the computers that we wanted to work with (John, Lecturer at UDS, Ghana)

Research Training

When you go there, they take you through one year of course work. Most of the scientific theories and principles that we needed for research work, we were able to that in the classroom. The one-year research work was very, very, very helpful” (John, Physics PhD Graduate, Ghana)

Wang, L., and M. Byram. (2019) describe the cohesiveness of many Chinese supervisors’ student groups (*tongmen*) . Whilst not every respondent felt included by their supervisors, most were surprised (and impressed) at the rigorous expectations placed upon them, and the dynamic research cultures that resulted.

”If the equipment are readily available, then it makes your research kind of easy. So that the other cool points with my lab group or with my professor is that for him, he usually wants you to do everything by yourself. I know from speaking to all of my other friends, like in other countries, and even in other universities is that ,,you probably give your sample to that person and the person does this for you. But over here like you are you are you are taught how to use the equipment. So anytime you have a research or an experiment to perform, you just do it by yourself. That is the kind of experience that I was looking for, like, I wanted to do everything by myself. And that's what I've been doing so far. (Simon, Material Physics, Zheijiang University).

Negotiating the regulations...

“Originally the scholarship gives you three years and you can get one more year extension ..but after four years you will lose all benefits and you will be self-sponsored. When I came here it was 2017 and after two years there was a new ruling regulations that dissertation should pass through the national online planned review, like they should see before you got your certificate. If the worst comes, and I have to revise based on the comments.. I may be self-sponsoring, and I doubt whether I can afford it”

Learning Mandarin, or not..

“ Some people complain about the professors not speaking English. And then, for me, it's interesting in the sense that most of these guys, if they were supposed to be in Western countries, they would definitely be learning English to communicate. Yeah, but some of the guys come here, and they don't even make any effort to learn any Mandarin, like zero. That's a problem. For me, one of the things which really pushed me to learn the language was in my former University for my Masters, most of the professors didn't speak good English. So communication was a problem. So I realized that I had to learn Chinese to be able to communicate. So most of the time, my Mandarin learning wasn't even from, like the classroom. I used an app. And then I was mostly, like, in the streets, like communicating with the older guys and stuff. And that was how I was able to learn how to communicate. But then most of the guys don't try to make an effort at all so that's a problem” (Simon, Material Physics, Zheijiang Uni)

“For some supervisors language is a barrier because like even if they are professors they have finished all their classes in Chinese here, not abroad, so they couldn't speak Chinese. So it is not easy for us to communicate with them. But most top universities in China assign professors who can speak English for international students “ (Afework, Business Administration, Wuhan Zhong)

...and negotiating cultures of prejudice..

“Half/ the Chinese supervisors will criticise you..constantly comparing you...they don't think you have the same skills/abilities as Chinese students...My former supervisor at Beijing was more supportive: she was critical but also offering a way forward. My new supervisor is sometimes not supportive. Her perception is of African students as somehow lazy, and just here to get Chinese money....so most students are struggling to finish their degree”(Agata, Wuhan, studying Educational Management)

These interviews were conducted during 2021, when many African researchers had returned home, or had been encouraged to stay on campus for their own safety. Only 3 respondents explicitly mentioned experiencing racism

Our schools and our schools, they are really trying their best to protect us, to make sure we are safe, to make sure we are we are not facing the hardship, the situation outside our schools, trying their best to protect us to make sure we always on campus. For sure, you know, I have friends who have been staying out of campus. Not in campus, and the way they get treated off campus in the communities is just very bad. (Emmanuel, studying Organisation Studies at Wuhan)

The 'publish or don't graduate' pressure

- “So I just, I just made some questionnaires and with the help of my professor, I made some questionnaires and sent back to, to my country online to some people that I know, to help me fill the questionnaires. And I got data, like from 260 people. Yeah. So from the data that I had, it helped me to write my dissertation. And then I'm using the same data to write the SCI paper, which I don't know I don't know what will come out with it. Because I've seen so many people who are struggling with SCI, it's really hard for most of us” (Emmanuel, Ghana)

“The university gives us a stipend for publishing articles. So they give us 2000 RMB. To publish a paper in an indexed journal, they are required to pay you for your effort, she was wondering if you publish they will multiply the impact factor by 10,000 renminbi and give you that. That was a motivation for students to work hard” (Samuel, Ghana)

“They made it clear to us during the orientation that one of the reasons why they gave us scholarships is to help them publish. They depend on us to publish so the university can have a better ranking. I have friends who did PhDs in Europe, and they do research, but they don't push them to the same extreme that they pushed us to in China.” (Kofi, Ghana)

...leads to the search for the SCI publication..

“Someone can just stay for three years or four years and then ending up not graduating because of one paper. Just because of one paper, like everything you have done everything perfectly, you passed all the coursework you did your you did your dissertation. You know you did all the required papers and then all the assignments done. seminars, conferences, like you have done everything in in a very good order. And just one paper is making you not to graduate” (John, Ghana)

In response to the pressures of graduation requirements and evaluation processes (Li 2016), the Chinese Ministry of Education has, since 2020, encouraged a more holistic approach to assessment. University responses have been mixed.

My professor would push you to publish and give you the kind of journals he wants you to publish in but that is not the situation in Ghana. Publication is not a requirement to graduate in Ghana but in China especially in Jiangsu University, some professors would tell you you ‘publish 3 SCI or you don’t graduate’. And even some professors in Ghana, they don’t even know what SCI is. The maximum they can go is Scopus, they publish in Scopus journal and they feel like they have achieved. But someone is in China and they feel like they publish in Scopus and they feel like they haven’t done anything, I’ve wasted my publication.... By the time I graduated I had published four papers as lead author in top-notch journals. I compare my research impact to some professors, and I rate higher. (Rebecca, Lecturer Ghana)

A perception (from some) of 'China rising' ...

“ For quite long we African countries have been taking and copying and learning and studying from the European academics.. the system of education Tanzania is using has been left by the colonizers, has been left by Europeans...Now there is a new move between Asia and Africa. There is a new way, a new model, which is now coming to Africa very smoothly, which is Chinese language. How is it to take into Africa? It is through education. This year our ministry of education in Tanzania has introduced the Chinese language as one of the subjects to be taught in high school”
(Elimu, studying Education in Shanghai)

Ambitions for changing cultures of research training at home

“The one thing that we need to learn which I would actually implement here with my students - I would work with them to publish, and then we can own the paper together. Publication should also be a requirement and then you - the lecturer - should work with them and push them to do it... it's the same people who travel outside to China and other places and they are doing it, so why can't it be done in my school in Ghana” (Kofi)

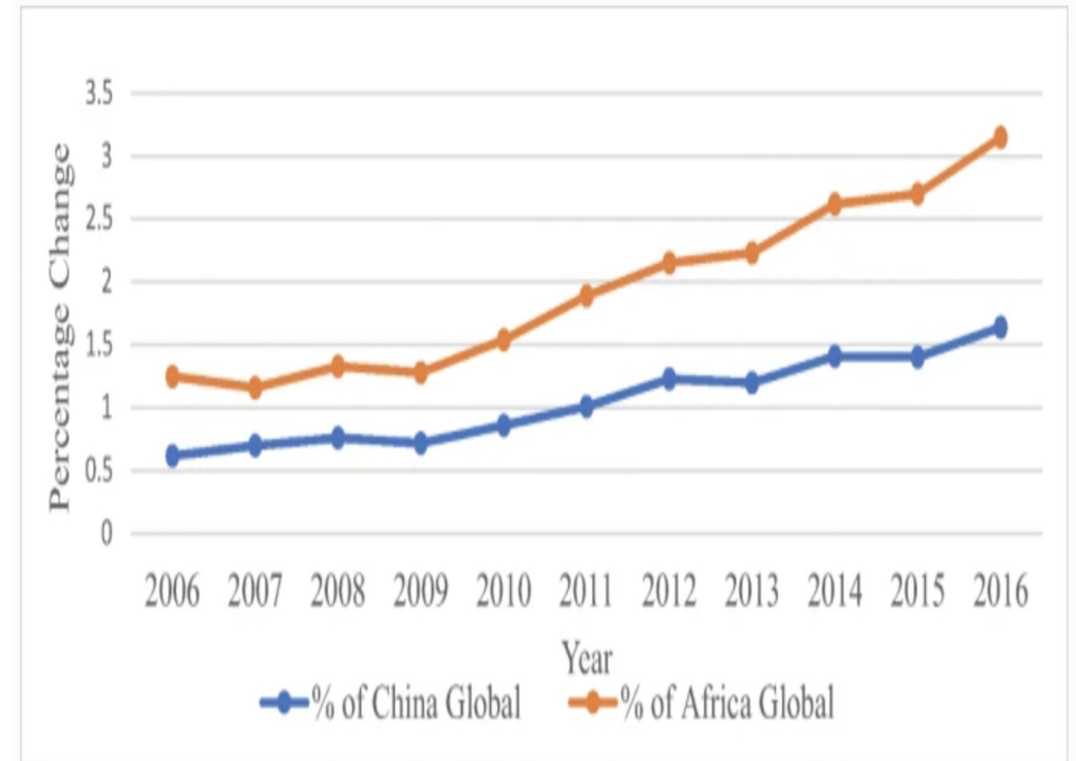
“We are proposing weekly seminars, we are proposing research cliques, and we are encouraging collaboration - both internal and external since one of the useful things I got from my professor is getting research collaborators”. (Rebecca)

“when we go we are able to perform and impress them so when other Ghanaians apply they are likely to give them that admission because when we go we leave a good name in terms of publication ..so I think that's why we have more Ghanaians there “ (Kofi, PhD graduate from Jiangsu)

“ So when I go back to my country I have a proposal to put it in my mind as well as already written, I have a plan to have a research center which has an influence not only in Ethiopia but all Africa, so this initiative is coming after I came here when I see a lot of things” (Afework, Wuhan Zhong, studying Business Administration)

The China PhD: Benefiting from relational ‘knowledge diplomacy’ or just pursuing an academic career?

- Benabdallah (2020) describes how China is deploying its ‘relational’ power through training and knowledge exchange, a genre of what Vinet (2010) calls ‘knowledge diplomacy’.
- Our African interlocutors described how they benefitted from Chinese research cultures and training, with some comparing institutional research cultures in China, Africa and Europe. A few are sustaining research China collaborations and linkages post-PhD, as well as continuing to publish with supervisors and peers.
- Several of the PhD graduates articulated an ambition to transform their own university research cultures. Others were seeking postdocs before returning (especially those from Ethiopia, given the ongoing civil war).
- Is this deployment of ‘relational’ power building Africa-China research and knowledge collaborations, and changing the geopolitical imaginaries of these researchers?



Comparison of annual growth in China-Africa WoS research publications as a percentage of all global collaborative outputs for Africa and China (Eduan and Yunquan 2019)

Remaking spaces of transnational academic knowledge production?

Kamola (2019, 189) points out that 'new ways of imagining the world must also entail changing how the production of knowledge is organized...academic practices of imagining the world differently must also include imagining universities differently'.

This study shows how, by studying in China, Ghanaian, Tanzanian and Ethiopian researchers can develop a comparative geopolitical imaginary that is more 'African-centred' (Sharp 2016) and potentially 'tricontinental' (Young 2005) in perspective.

This work has not explored institutional research collaborations, or other Chinese funding and training initiatives, but these have also been increasing under FOCAC.



References and resources

- Agbodeka, Francis. 1998. *A History of the University of Ghana: Half a century of higher education* (Woeli Publishing services: Accra).
- Alabi, Goski, and Ibrahim Mohammed. 2018. "Research and PhD capacities in sub-saharan Arica: Ghana report." London: DAAD / British Council .
- Anshan, Li. 2018. 'African Students in China: Research, Reality and Reflection', *African Studies Journal*, 17. http://asq.africa.ufl.edu/files/2_Li_Anshan.HD-ed-2.pdf
- Carrozza, Ilaria, and Lina Benabdallah. 2022. 'South–South Knowledge Production and Hegemony: Searching for Africa in Chinese Theories of IR', *International Studies Review*, 24.1: <https://doi.org/10.1093/isr/viab063>
- Eduan, Wilson, and Jiang Yuanqun. 2019. 'Patterns of the China-Africa research collaborations from 2006 to 2016: a bibliometric analysis', *Higher Education*, 77: 979-94.
- Fosci, Mattia, and Lucia Loffreda. 2019. "Strengthening Research Institutions in Africa: A Synthesis Report" in *Building PhD Capacity in Sub-Saharan Africa* . DFID/ Research Consulting.. London: DFID.
- Gillespie, Sandra. *South South transfer: A study of Sino African exchange* . New, and York: Routledge. 2001.
- Kamola, Isaac. 2019. *Making the world global: US universities and the production of the global imaginary* . Durham: Duke University Press: Durham
- Li, Yongyan. 2016. "'Publish SCI papers or no degree": practices of Chinese doctoral supervisors in response to the publication pressure on science students', *Asia Pacific Journal of Education*, 36: 545-58.
- Sharp, J. O. 2019. 'Practicing Subalternity? Nyerere's Tanzania, the Dar School, and Postcolonial Geopolitical Imaginations.' in Tariq Jazeel and Stephen Legg (eds.), *Subaltern Geographies*. Atlanta: University of Georgia Press
- Tamrat, Wondwosen, and Getnet Tizazu Fetene. 2021. 'The achilles- heel of doctoral education in African higher education institutions: an Ethiopian university in perspective', *Higher Education Research & Development*: 1-15.
- Vinet, Luc. 2010. 'Universities and Knowledge Diplomacy', *Procedia-Social and Behavioral Sciences*, 2: 6772-76.
- Wang, Lihong, and Michael Byram. 2019. 'International doctoral students' experience of supervision: a case study in a Chinese university', *Cambridge Journal of Education*, 49: 255-74.
- Young, Robert JC. 2005. 'Postcolonialism: from Bandung to the Tricontinental', *Historiein*, 5: 11-21.