Untapping FOCAC higher education scholarships for Africa's human capital development: lessons from haigui

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Abstract

The future development of Africa hinges on the development of its human capital. Higher education is one of the critical resources that will help unlock Africa's potential. China has been a significant partner in the continent's growth. African Heads of State have lauded China's development model and have developed policies to emulate what they consider the most suitable model for a developing nation. Twenty years since the birth of the Forum on China–Africa Cooperation (FOCAC), the value of higher education cooperation between Africa and China remains untapped by the private and public sectors. Under FOCAC, China has made provisions to support Africa in human development through various programs, including education. China has invited African scholars to Chinese universities to earn higher education degrees, as well as learn the Chinese language and study China's programs for alleviating poverty. After graduation, students are required to return to their home countries and contribute to the development of their national economies. This paper reviews the usefulness of international education cooperation for human capital development in the Africa–China context. The study examines China's experience with *haigui* and identifies lessons for Africa. The paper argues that a more intentional, incentive-driven, and standalone action plan for higher education could help both sides with national branding and enhance future policy and industry development. The results will have a far-reaching, sustainable, and strategic impact on regional integration, industrial development, and diplomatic relations.

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1 Introduction

Africa boasts one of the youngest populations in the world. The continent is home to more than 400 million people between the ages of 15 and 35, representing 40 percent of its population (African Union 2021). By 2030, this segment of the youth market is expected to represent 75 percent of Africa's population. According to the African Development Bank (AfDB), by 2050, Africa will be home to 38 of the world's 40 youngest countries (AfDB 2016). This presents the continent with a competitive advantage over most developing and developed nations, many of which are facing the dilemma of an aging population. A young population makes the continent attractive for investors, especially in industries that require skilled and lower-wage labor like manufacturing. Human capital development is essential for the continent's economic growth; hence, it is one of the strategic axes for both the African Union's Programme for Infrastructure Development in Africa (PIDA) and the Agenda 2063. An effective plan for human capital development necessitates educational enhancement and skill development for the young labor market. The PwC report on Workforce of the Future 2030 projects that an average of 13.5 million educated young Africans are expected to join the workforce each year for the next three decades (PwC 2019, 201). Without the education capacity and resources for development, Africa may yet again fail to realize the demographic dividend,¹ as it did with its resource abundance.

This paper identifies strategic initiatives that African states can learn and apply from China's experience with overseas returning students, informally labelled *haigui*,² and ways they can leverage China's scholarships to propel human capital development. According to the education-effect dividends model, education expansion accounts for a high proportion of "productivity effects." (Lutz et al. 2019). This paper examines the "brain gain" of China's initiatives and explores possible interventions for transplanting them to Africa to develop the continent's most valuable asset, human capital. The paper seeks to outline important and uniquely Global South initiatives that would improve the ability of higher education scholarships to help the continent capitalize on demographic dividends. China's own experience and success in the 1990s provide some realistic goals and guidelines for Africa that the Global North has failed to deliver.

To arrive at a clear proposal, this paper is divided into five parts. The first part provides background on Africa and China's historical and current education

¹ Demographic dividend is defined by the United Nations Population Fund (UNFPA) as "the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)." See Amirbek and Ydyrys (2014, 514–516).

² *Haigui* is translated as "overseas returnees." It is a multilayered term used to describe Chinese students who study overseas and return to China.

exchanges and cooperation. The second part examines Chinese policies, measures, and incentives targeted at *haigui* that have resulted in "brain gain." Through these interventions, the Chinese government has incentivized and therefore attracted students to return to China and contribute to national interests. The third part is an empirical review of four African countries—Cabo Verde, Ethiopia, Nigeria and Rwanda—to investigate the existence of brain gain programs. Best practices from the China model are drawn to make recommendations for a Global South solution. The conclusion contains two proposals—one for policy makers in African countries and another for the FOCAC action plan, on how to fully optimize future scholarship programs.

2 Africa–China Education Cooperation

What development lessons can Africa draw from China? This is a common question asked by Africa–China scholars and leaders from the continent. The notion of capturing sub-Saharan Africa's demographic dividend is one that is taken from the China growth model (Groth et al. 2019). China has become a strategic partner and benchmark in Africa's development, from delivering major infrastructure and cementing its geopolitical legitimacy. China's interest in the continent has progressed, from it solely being a source of mineral products to now also being a market for Chinese business and finance. Its credit lines typically target financial services and major infrastructure projects—in rail, energy, logistics and construction sectors. China has taken a different path to counter the narrative of being a resource-seeking and neo-colonial presence on the continent. Since the launch of the ministerial Forum on China–Africa Cooperation (FOCAC) in 2000, human capital development has become a key pillar of Africa–China social cooperation.

China has received African students since the 1950s. Albeit the hiatus during the Cultural Revolution, the number of African students studying in China has increased significantly from four students in 1956 to over 80,000 in 2018 (Li 2018). China has acknowledged the lack of capacity for Africa to advance its youth population. To optimize and validate any assistance from China, the continent requires investment in education and the development of the skills base of its human resources. Furthermore, African states need to develop policies and initiatives that enable them to leverage developmental gains among the youth. Ahmed et al. (2014) suggest that with the right interventions in education, Africa's youth could contribute 11–15 percent of gross domestic product volume by 2030. Also, this growth could account for 40–60 million fewer people living in poverty by 2030.

Through a series of FOCAC action plans, China has committed explicitly to assisting Africa with its human capital dilemma in higher education, specifically under two strategic action items of the FOCAC Action Plan 2019–2021.

Strategic action 4: Social Development and Cooperation

4.3 Education and Human Resources and strategic action and in other specialized areas. China committed to enhancing higher education exchanges. "China

has offered degrees to African students on Poverty reduction. This degree could provide a structured insight into the China model and education opportunity that cannot be learned from any western institute."

Strategic action 5. Cultural and People-to-People Exchanges

5.5 Youth and Development. In addition to FOCAC, Africa also cooperates within education China on two other multilateral platforms—BRICS (which stands for Brazil, Russian, Italy and South Africa); and the Belt and Road Initiative.

After the formation of FOCAC, the number of African youth studying in China increased significantly, matching the growth in trade, investment, and diplomatic exchanges. In 2003, the number was slightly under 2000 (Li 2018). Chinese Ministry of Education announced that by 2018 there were 81,562 African students in China, representing 16.47 percent of all international scholars (Ministry of Education, PRC 2019). This number has increased significantly compare to the 2000 recorded in 2003, a few years after the establishment of FOCAC (Study International 2020). Recent data show an increasing preference for studying in China, especially among students pursuing degrees in science, technology, engineering, and mathematics (STEM) fields. Ranked below France, but above even the United States of America (USA), China has been regarded as a preferred study destination for African scholars since 2014 (Luedi 2018). Three factors possibly explain this trend: first, China's promotion of scholarships to African scholars; second, the relative affordability of education in China; and third, the growth of Africa–China relations. However, while China looks attractive from a higher education point of view, no research has yet indicated the extent to which this rise in Chinese qualifications impacts the value proposition of African graduates. In reality, qualifications from countries in the Global North seem to still offer African graduates a competitive advantage.

While education was not a key focus in the initial FOCAC plan, the benefit of cooperation in this area is undeniable. Africans in China may be organised four main categories: students, diplomats, professionals and traders. Professor Li Anshan (2018) writes that African students are now the second-largest category of Africans living in China. Since the highest number of Africans reported to be living in the country is 16,000, the student body could easily represent the largest category of Africans in China. The size of the student body is expected to increase year over year, given China's previous pledge in the Action plan 2019–2021, to provide 50,000 scholarships to African students for 2019–2021. The scholarships help fund undergraduate, masters, and doctoral studies at Chinese universities. In addition to the scholarships, China pledged to invite 2000 young Africans to participate in learning visits to China. Educating the next generation of African scholars and elites in China ensures that Africa's future policymakers will be more familiar, and therefore likely to be more cooperative, with China's global policies. More African scholars will be part of the budding Africa–China cooperation and policy relationship. It is a testament to the country's unique value proposition and investment in strengthening relations with African countries.

Since China is the fastest-growing trade and development partner in Africa, Chinese companies are expected to generate future employment and entrepreneurial opportunities across the continent. These opportunities will occur in sectors that no longer represent a competitive advantage for China, due to its aging population and rising wages. In 2017, China created the most jobs on the continent, although it ranked seventh in the number of development projects in Africa (Li 2018). During the same year, China created 30,000 jobs as a major development partner and leading international credit provider. In addition to bilateral agreements and the multilateral FOCAC agreement, China cooperates with African countries under the Belt and Road Initiative (BRI). Eva Richter (2020), Chair of Chinese Legal Culture at the University of Cologne, suggests that China plays a crucial role in shaping how migration develops along the BRI through domestic cooperation, as well as bilateral and multilateral agreements. In Africa's case, this is through FOCAC. China's multinationals, such as Huawei, have a large footprint in Africa and facilitate key infrastructure projects. In the transportation and logistics sector, new projects will certainly also arise from the Africa Continental Free Trade Agreement (AfCFTA). These two factors can enable increased mobility of Africa's graduates and experts across the continent.

China's capacity to facilitate Africa's human capital development could create jobs at all levels all over the world, since it has the largest corporate representation globally. Amid the global recession spurred by COVID-19, for the first time Chinese enterprises surpassed the USA on the Global Fortune 500. China is well on its way to reaching the "China Dream" from opening up. Although its banks and State-Owned Enterprises (SOEs) are the most profitable, notably at the top of Global Fortune 500 list, global trade and innovation remain the primary catalysts for the success of Chinese global companies. African graduates should, therefore, be well-positioned to compete globally, having gained Chinese expertise, fluency in Mandarin and appreciation of Chinese corporate objectives aligning with the national agenda. Leveraging these qualities in a world where China becomes a dominant superpower, the graduates may represent Africa's next generation of global elite in business and politics in the context of regional integration in partnership with China.

Strategic high-impact projects, however, are delivered under bilateral agreements with African governments without clauses to transfer skills nor technology. There is very little research on brain gain between China and African countries, especially in higher education. Most scholars (Brautigam 2015; Tang 2016) have focused on manual labor to counter the criticism that China does not employ people in Africa from the domestic labor pool. Lack of a policy framework and management of returning graduates results in Chinese companies arguing that they cannot hire because local labor lack of skills and/or cultural barriers. African governments have struggled in enforcing contracts that require Chinese companies to employ locals and conduct skills development. So, what is the value of the current pipeline of African graduates? Are the scholarships creating more experts? Is the experience in China helping to inspire and nurture future leaders? Ariel Gandolfo (2015) argues that the type of employment opportunities Chinese companies have focused on in Africa do not actually translate to real development. If African countries want to adopt the China

model, they should closely study its policy reforms on returning students and its initiatives after opening. Suppose China hopes to help create the next pipeline of African experts and intellectuals who will positively impact local economies, in that case, it should work closely with African institutions to develop viable initiatives through partnerships with Chinese companies in Africa. In this win–win formula, the Chinese scholarships could raise the country's academic profile as an emerging superpower, while engaging with some human development needs and priorities on the continent.

3 China's approach to higher education and human capital development

3.1 Education as a soft power tool

The advent of globalization and the new-age *haigui* have transcended the categories dictated by China's Overseas Chinese Affairs Policy (Qiaowu).³ Internationalization has called for the reconceptualization of China's interactions with the diaspora. Initially, the Qiaowu policy started with incentives and favorable policies to encourage foreign-based Chinese to increase their remittance. However, during the Mao era, the policy shifted from economic incentives to political. Overseas Chinese were now required to align to Mao's ideal and only be in service of the great leap. After Mao's period, China changed its approach as it made economic reforms and transition. This transition would be facilitated through the introduction of soft power,⁴ a term coined by the political theorist Joseph Nye. Focus shifted not only toward creating internal relationships and opportunities for Chinese abroad upon return, but also began to encourage China's Public Diplomacy, referred to as *gonggong waijiao* (Thuno 2018).⁵

Joseph Nye (2012) introduced soft power as a strategy for America to move away from military power (hard power) while remaining dominant in foreign relations. Soft power leverages economic, cultural and political force as a means to attract and co-opt. The Chinese government adopted the concept and embraced it in different aspects of its international relations and reformed the idea of soft power with Chinese characteristics (Ding and Koslowski 2017). Investing in the education of Africans is a critical extension of China's soft power. Its approach to attracting international students results from state-directed efforts to increase China's geopolitical and academic relations. China sought to develop the notion of soft power in education

³ Overseas Chinese Affairs policy is known as Qiaowu in China. It was implemented by the communist party out of economic interest. China's overseas remittances of foreign Chinese offered a sizeable contribution to China's foreign reserves.

⁴ Soft power refers to the ability of a state to influence its people and other states to get a desired outcome without coercion.

⁵ *Gonggong waijiao* is an outward concept that refers to the duty of public diplomacy; establishing patriotic connections with the *haigui* in their host countries. See Thuno (2018), Xiang (2006, 33), Wang et al. (2006) and Liu and Dongen (2016).

by emphasizing the promotion of Chinese culture, language and diplomatic activities, such as establishing Confucius Institutes worldwide and hosting international events, such as the Olympics 2008 and, prospectively, 2022 (Thuno 2018). China opened its borders to international students, realizing the value of internationalizing its education. The Chinese government made a great effort to improve its geopolitical and academic relations, both inbound and outbound. Pan (2013) proposes that some scholars (Findlay and Tierney 2010; Marginson 2009, 2011; Ng 2012) understand this rise of the study-abroad trend as a feature of neoliberalism, since Asian countries characterized opening their economies as export-oriented, thus promoting a market-driven approach to higher education.

The National Overseas Chinese Affairs Work Conference in 2011 was the first platform where long-term expansions to diaspora policies were enunciated, to include attracting investment and talent, protecting and promoting national unity, and generating national soft power by way of public diplomacy (Beaumont 2018). This proposition subsequently gave rise to the first adoption of a five-year implementation plan to employ and develop the diaspora. Chinese officials were able to look beyond the standard economic model of pull-and-push factors and use the gaps that the insurgence of *haigui* created to harness the ability to create opportunities solely for returnees, rework immigration policies and hence retain a larger pool of expertise; moreover, use the idea of public diplomacy to continue its ascent into the global sphere. The Chinese diaspora is at the center of changing China's foreign affairs' narrative to transnational and has incentivized states to promote diaspora communities and support overseas Chinese media and Chinese education.

However, China's *Wei guojia fuwu*⁶ approach to foreign policy does not come without its shortfalls; the brain circulation in comparison to brain gain has stirred the need for recognition of transnational identities (Wang et al. 2006). Thuno (2018) raised the debated issue over dual citizenship, which still looms and poses a threat to the country's authoritarian rule, hence its strong resistance against the matter. On the other hand, developed countries with a democratic political system offer Chinese diaspora external voting and political rights, which induces the diaspora into overseas constituencies (Thuno 2018). Therefore, allegiance to politics is a critical obstacle to returnees who wish to obtain citizenship in their host countries and still maintain connections with China. Nonetheless, even with the lack of dual citizenship, the Chinese government has managed to reverse the brain drain.

3.2 The *Haigui* concept

The Chinese have colloquially labelled skilled graduates who studied overseas and return to China as "haigui," a metaphor taken from the sea turtle's migratory movement (Louie 2006). The expression first appeared in the 1990s on the internet and is now commonly used. It is an abbreviation of the phrase *haiwai guiguo*, which is

⁶ Wei guojia fuwu transliteration is to serve the country.

synonymous with *liuxuesheng* (student returnees from overseas or foreign student). There have been three generations of *haigui* in China's modern history. The first generation can be traced to the Qing Dynasty in 1872, when the emperor implemented the first study-abroad movement (Li 2006). Since the 1870s, China has been a measurable source of students going abroad to pursue higher education and improve their professional prospects. According to the Head of Human Resource Bureau at Zhongguancun Village Enterprise Park,⁷ *haigui* refers to those who have studied abroad, either having obtained a degree abroad or having spent more than one year abroad under the banner of an exchange program (Le Bail and Shen 2008).

During that early era, returnees were considered revolutionaries who advocated for adopting westernized methods, policies (fiscal, economic, political) and technology during a period when the Chinese were under siege by the British (Bastid-Bruguière undated). They also occupied top positions within enterprises that emerged due to the transition; their years abroad made them well-suited to bring the West to China. The government deployed Chinese global scholars to study and benchmark the international legal systems to develop the first Chinese constitution and modern civil law with Chinese characteristics.

The second wave of returnees occurred in the 1950s, soon after the establishment of the People's Republic (Li 2006). During this period, China moved to adopt a communist and anti-western position and fostered international education exchanges with the Soviet Union. However, this alliance was short-lived due to political upheaval between the two. The majority of the *haigui* from the Soviet Union took leadership positions in the communist party and government structures, creating the capacity to craft a strategy against the new enemy.

The third and most recent generation of *haigui* came after Deng Xiaoping's opening-up policy, which promoted a more sociable foreign policy with the international community. In 2001 alone, UNESCO Institute for Statistics (2009), statistics reflected that Chinese students studying abroad accounted for roughly 25 percent of the world's more than 1.6 million overseas students, making it the world's largest exporter of students for overseas studies. This third generation of *haigui* initially did not return to China, opting for new opportunities overseas. However, with China's economic growth and expanding opportunities in the domestic market, more graduates returned home with better expertise. At this time, China was ill-prepared for the rapid insurgence of brain gain.

The Chinese government's human development policy and frameworks were not tailored to absorb these new cohorts or Chinese experts. The prior policy known as the *qiaowu*⁸ was based on four fundamental categories, including Chinese nationals

⁷ Zhongguancun is widely considered China's version of Silicon Valley.

⁸ Qiaowu refers to the activities of The Overseas Chinese Affairs Office of the State Council. The office is in charge of ensuring loyalty to China and the communist party by overseas Chinese people. See Ding and Koslowski (2017, 97–116).

residing outside of mainland China (*Huaqiao*), Chinese returnees for permanent settlement (*guiqiao*), foreign citizens of Chinese ethnicity (*huaren*) and relatives of the first two (*qiaojuan*) (Wang et al. 2006). The Chinese government prioritized strategic policy reform to harness the expertise of the returnees (*haigui*) in the workforce (Constitution of the People's Republic of China 1961).⁹ Since the mid-1990s, the Chinese government launched at least 12 programs to attract highly educated and skilled overseas Chinese in the diaspora. President Xi Jinping also emphasized the role of returning overseas students in contributing towards China's transformation and openly lauded those who had returned as "outstanding examples" to emulate, as a call to encourage those still overseas to return home.

3.3 China policy for overseas students

The Chinese private sector and government have significantly benefited from the know-how and human capacity development resulting from international scholarship (Kun 2011). Cross-culture experiences spark the ability to pioneer innovative projects within global production ecosystems, and an understanding of the need to promote the use of local products. For instance, a large portion of the *haigui* targeted through mass entrepreneurship and tech innovation programs return with Silicon Valley experience, allowing China to harvest talent through funding startups directly. Some *haigui* work for foreign or foreign-funded companies making it easy to attract inbound FDI. ByteDance is a benchmarking venture to illustrate this, being the world's most valuable start-up and parent company to various successful products such as TikTok. Musical.ly was created by a *haigui* who took up studies in the USA (One Piece Work 2019). In light of the rare talent, Beijing targets foreign-educated Chinese students and scholars with expertise in fields and technologies identified in its national industrial policy and military-civil fusion plans (Lyoyd-damnjanovic and Bowe 2020). These range from mobile communication and aviation to biotechnology and new materials.

Xi Jinping's "Made in China 2025" in this regard is an umbrella industrial plan founded on facilitating soft power through subsidizing the advancement of China's global manufacturing value chain, pioneering emerging technologies, and becoming predominantly self-innovative (Li 2017; Sutter 2020). Various sectors have been envisaged as central to the Made in China 2025 plan, including new advanced information technology, high-end machinery and robotics, aerospace equipment and high-tech ships, modern railway equipment, energy-saving and new energy vehicles, power equipment, agricultural machinery, new materials and biopharmaceutical and high-performance medical devices (Ma et al. 2018). Start-ups have proven to be the most sought after, with groups, such as the Chinese Youth Returnee Association (CYRA) and the Nanjing Economic and Technological Development

⁹ Article 23 of the 1954 Constitution made provision for overseas Chinese to participate in Chinese politics with 30 deputies at the National People's Congress represented by overseas Chinese. For the first time overseas Chinese were granted political right in mainland China. See Constitution of the People's Republic of China (1961).

Zone attracting thousands of overseas experts, and students into crucial programs that have proven to be successful (Beaumont 2018). Currently, the production of next-generation semiconductors is particularly contentious in the wake of the USA-imposed restrictions on 5G technology and Chinese communications; talent retention will be vital in cushioning the impact on the industry and fast-tracking the ideology of a self-innovating economy, which underlies the Made in China 2025 plan. Relaxation of regulations, reduced state interference and mass investment in the private sector have fostered various aforementioned entrepreneurial and tech innovative projects. China takes its brainpower seriously. Programs such as the Thousand Talents Program (TTP) (launched in 2008) are designed to appeal to top talent (Chinese and non-Chinese), especially in the sciences, to work in China with high salaries and strong benefits packages, world-class facilities and prestige (Portman and Carper 2019).

The *haigui* concept has not been infused in the FOCAC action plans. African countries generally put a higher value on returnees from the west, hence most scholars historically choose to be educated in the west. While the concept does not directly correlate with Africa–China relations, similar returning-scholars initiatives could be applied to foster closer ties, enabling skills development, and technology transfer. Education cooperation, as a key element of social cooperation under FOCAC, can benefit from *haigui* best practices and policies applied by The Overseas Chinese Affairs Office of the State Council. *Haigui* in China contributed significantly to the country's economic development. However, a version of the *haigui* policy in Africa should recognize China's unique history vis-à-vis its current programs in Africa to reverse the brain drain and develop local skills.

4 Africa's approach to human capital development in the context of Chinese government scholarships

Africa has the youngest population globally, with more than 400 million people aged between 15 and 35. Moreover, contrary to declining fertility rates across Europe and other parts of the world, Africa's population grows by 2.7 percent annually. At this rate, the population is forecast to double by 2050, a projection that has already begun to spark the interest of many investors (The Economist 2020).

As the rest of the world embraces the fourth industrial revolution, sub-Saharan Africa has the highest education exclusion rates. This is mostly due to lack of access to school, the poor quality of education and the dismal rate of job-creation. Hence, human capital development remains at the forefront of the global development agenda for Africa. Investing in human capital development is, therefore, critical to increasing the value of the labor force.

To appraise Africa's approach to human capital development in the context of Chinese development assistance, this section will examine the experiences of four African countries. From the onset, it is evident that sustainable human capital development requires innovative policies for retention. Yet, scholarships inadvertently pose many challenges in Africa, such as lack of transparency, corruption, and brain drain. By exploring the initiatives and strategies applied in the respective African

countries, we shall assess how the FOCAC higher education scholarships contribute to Africa's human capital development—leveraging China for capacity-building, technical training and sustainable development—and what lessons from China's experience with *haigui* could be applied. In the context of Chinese government scholarships, assimilating in the country is also promoted as a valuable education experience in itself. Students learn about China's history of lifting its citizens out of poverty, the local culture, and the value system.

It is not clear the level of negotiating power African countries have over decisions concerning the fields of study, the selection of universities, and their respective locations. Surely, the African countries should seek to align scholarship agreements with their national human capital development plans to prepare the youth for the job market and ensure their retention in the country after graduation. The section below examines the conditions in four countries, including the importance of youth for development, the existence of a human capital development plan, and what mechanisms are in place to leverage the expertise of graduates from Chinese universities.

4.1 Cabo Verde

Cabo Verde has a population of approximately half a million people; meanwhile, it is famously said that its diaspora is well over one million. After its independence in 1975, students who received scholarships to study abroad were quite familiar with the patriotic rhetoric, encouraging them to return home with valuable expertise because they would partake in nation-building. Since then, much has changed. Today, students target specific international scholarships based on immigration prospects, which may even include plans for their families. As previously outlined, while this is not a feasible criterion for Chinese scholarships, there is still no explicit or verbal contract committing the students to a specific national agenda upon completing their studies. There is also no formal interaction with China's diplomatic mission throughout their stay, nor formal gathering with the Ministry of Higher Education (which processes the scholarship applications) once they return.

The Cape Verde–China Friendship Association, dubbed AMICACHI,¹⁰ dubbed AMICACHI, is a non-governmental organization established in 2011 with the objective to promote cultural ties between both countries (Madeira 2017, 136). Founded by a former beneficiary of a Chinese government-sponsored scholarship, then turned diplomat in Beijing, AMICACHI is the soft-landing spot for graduates. It is here that they socialize with peers, share employment opportunities and learn to leverage their experience in China for career development (Andrade 2021).

Being a relatively small country, Cabo Verde's returning graduates are able to assimilate with networks of family and friends. Information and news also spread fast with the added convenience of social media. While this does not negate the need for an official national program for brain gain, the country's 12 percent

¹⁰ AMICACHI is the acronym for Associação de Amizade Cabo Verde – China.

unemployment rate suggests that the job market for fresh graduates may already be saturated (Statista 2021).

4.2 Ethiopia

With over half the population living in poverty just two decades ago, Ethiopia was known to be the third-poorest country in the world. With hard work over the next decade, Ethiopia had one of the fastest-growing economies in Africa; by 2015, the poverty rate had decreased by 31 percent (Kopf 2017). Yet, despite the progress, the standard of living in Ethiopia remains low.¹¹ This is especially concerning because, with a population of 108 million, the country has the second-largest population in Africa, 80 percent of which live in rural areas.

Ethiopia aligned its higher education needs with socio-economic development objectives abreast of global trends to fast-track human capital development. In an effort to improve conditions, the government has launched an Education Sector Development Program (ESDP) every five years, supplementing its Education Sector Strategy of 1994. The ESDP-V is its current and fifth medium-term plan, which has been serving as the central strategy document for educational development in Ethiopia since 2015. The country pledged to build 33 full-fledged universities by 2014/15, which saw enrolment increase by 66 percent over five years. However, Ethiopia continues to face many challenges in creating an inclusive and proficient education system (Woldegiyorgis 2015).¹² For this reason, the Chinese scholarship program is a valuable instrument.

Ethiopia's vision for human capital development is outlined in its fourth Education Sector Development Program (ESDP IV). Worth highlighting is the country's long-term vision to transform the country to middle-income level status by 2025 (Woldegiyorgis 2015). Leveraging China's development assistance in education, Ethiopia became the largest beneficiary of Chinese government scholarships in Africa. For instance, in the first eight months of 2018, the Chinese government had already awarded more than 1450 scholarships to Ethiopia in more than 20 fields (Xinhua 2018a; b).¹³ Upon completing their studies, graduates would have little choice but to return home due to China's restrictive immigration system. Once back in Ethiopia, the graduates are responsible for their own job searches and future careers. Thus, the onus is now on the Ethiopian government to define how best to leverage the graduates for all their academic competencies and the soft skills gained about China.

¹¹ Classified as a low-income country by the World Bank, Ethiopia also ranks 173 out of 189 on the Human Development Index (HDI).

¹² The enrolment increased from 192,165 in 2004/05 to 319,217 by 2010/11. See Woldegiyorgis (2015).

¹³ The 20 fields included including agriculture, business management, education, health, medical services, tourism, manufacturing industries, public administration, urban development, and poverty reduction.

4.3 Nigeria

Nigeria has the largest population in Africa—approximately 210 million, of which 20 percent is between the ages of 15 and 24 (CIA World Factbook 2020). This age group is the most critical period for human capital development, and yet has been the most unstable for Nigeria's youth. Since 1999, the universities have gone on strike 15 times in protest of the weak educational system and lack of investment in the public institutions (i.e., schools, libraries, laboratories, etc.). For the affluent middle class, education migration has become standard practice.¹⁴

Over the last 20 years, since the launch of FOCAC, Nigeria and China have built strong economic, political, and social ties. Included, the scholarship program has been quite popular amongst the youth. Toward the end of 2018/2019, almost 7,000 Nigerian students were studying in China, of which 512 were on government scholarships (Punchng 2019).¹⁵ For the next calendar year, 2019/2020, the Chinese government awarded scholarships to 272 graduates, mostly for masters and doctorates studies in agriculture, engineering and medicine (Premium Times 2019). The size of the Nigerian student body in China suggests that students may be receiving funding from other organizations, as well as funding their own studies. Although Nigeria does not have a national brain-gain program or any specific program focused on the graduates from China, there is recognition of China's educational value and comparative advantage for professionals' training.

Alma Udoyen (2021), Legal Advisor at the Nigerian Communications Satellite (NIGCOMSAT), stated that Nigeria's National Space Research and Development Agency (NASRDA) looked no further for its engineers' training. For NASRDA to manufacture and launch the NigComSat-1R satellite, with support from China Great Wall Industry Corporation, Nigeria would need to urgently develop human capital in-house. Accordingly, NASRDA sent 50 engineers to China to learn how to operate a communication satellite for commercial purposes. The training took place at the China Academy of Space Technology (CAST) over a period of 36 months. The graduates subsequently returned; all continue to work in space technology and have also risen in the ranks (Udoyen 2021).

Since 2017, Nigeria has been China's largest engineering contract market and one of its principal investment destinations in Africa. Therefore, STEM graduates should be in high demand for major infrastructure projects, yet they are not visible on project sites. It's been said that Chinese workers would have difficulty receiving instructions from Nigerians in professional roles. For this reason, some Chinese companies prefer to recruit Nigerians from local institutions and preferably those who have completed a language course at one of the local Confucius Institutes. It would seem redundant, but it appears that the remuneration packages of the roles assigned are much more affordable this way.

Fresh graduates in Nigeria must serve a year in the National Youth Service Corps (NYSC). The Federal Government established the program to account and equip all

¹⁴ Interruptions in education affect the job sector and result in massive brain drain.

¹⁵ According to Mr. Sun Saixiong, the Press Officer in the Embassy of China in Nigeria, Abuja.

university graduates (including those who study abroad) with critical skills to join the workforce and develop the country. For a period of 12 months, graduates are deployed into various public institutions to provide technical assistance and support in any capacity necessary. To Nigeria's advantage, the country therefore has comprehensive information on the graduates from Chinese government scholarships (and more)—e.g., field of study, state of residence, availability upon return. Given the sheer magnitude of Nigeria's population and the dynamic pace of activities, it appears that the NYSC is a valuable organizational tool with untapped potential to also coordinate a brain gain program. Without any support system, it is very difficult to locate the graduates of Chinese government scholarships and assess if the Nigerian government is sufficiently leveraging this human capital pool.

4.4 Rwanda

Brain gain has been a focus of Rwanda since the mid-1990s, as the country sought deliberate policies to attract its diaspora and encourage Rwandan professionals to help fast-track its development. The most well-known campaign is "Come see—Go tell", which encourages Rwandans in the diaspora to have a candid experience in the country and then share evidence of the country's transformation abroad. Evidently, this campaign has a broad reach, with no specific focus on a particular geography or demographic. Therefore, in the absence of specific government programs aimed at leveraging graduates from China, for instance, it is civil society that fills the gap.

The Rwanda China Alumni Organization (RCAO) is an NGO that was founded in 2012 by former graduates from China. One of the objectives of the RCAO is to provide a platform from which graduates could provide services to Chinese investors, companies and individuals. Over the last five years, more than 50 Chinese enterprises have invested over USD 250 million in Rwanda. Through RCAO, over 600 members can coordinate activities, share job opportunities and leverage their networks (Nkurunziza 2019).

Despite Africa's growing labor pool, the continent remains vulnerable to massive migration and brain drain. Africa is estimated to lose 70,000 skilled professionals annually from brain drain alone. The annual cost of migration to Africa's medical sector, for instance, is an estimated USD 2 billion. Most recently, the propagation of the COVID-19 pandemic has revealed that there are more African doctors and healthcare professionals in the diaspora at a time when the continent is in deficit. Case in point, the USA, for example, is home to over 30,000 African-trained international medical graduates, 86 percent of which were trained in Egypt, Ghana, Nigeria and South Africa (Mo Ibrahim Foundation 2018). But how many received grants and scholarships from their governments? What is the government's return on this investment? Are the experiences of African graduates at Chinese universities the same?

5 Best Practices

Transplanting the idea of soft power investment will require a variation to fit the African context. African economies are mostly not as diversified and are significantly smaller in scale compared to China. Noting the differences and similarities between the two will allow for opportunities to be fully harnessed. With advanced production and industrialization still a farfetched concept for numerous African states, creating a bridge between investment and programs that are directed towards incentivizing entrepreneurship and innovation on a mass scale is an integral hybrid approach.

Since the 1990s, Chinese cities have implemented various measures to attract returning graduates. In recent years China has been more deliberate in its international student policies, realizing the potential of skilled expertise to give China a competitive advantage. Lloyd-Damnjanovic and Bowe (2020) outlined three strategic pillars that have made China successful in managing capacity-building in the context of the *haigui* cohort. The first is providing scholarships to Chinese students to study abroad. The scholarship is provided for programs that are of national priority to China, such as STEM. Scholars are awarded the scholarship with the condition to return to China immediately after graduation. China's second strategy is to incentivize returning students with prestigious jobs or start-up capital. The third strategy leverages national pride. The last two can provide some guiding principles for Africans.

As early as the beginning of the 1990s, cities like Beijing, Shanghai, and Shenzhen competed to attract returning overseas students and professionals. The cities included non-financial inducements, such as tax incentives and ease of returning income earned abroad, preferential advantages in terms of private car purchase, housing, import of technological goods, etc. Since 1997, Shanghai has provided student returnees with a Shanghai hukou (local city residence permit). Since then, an average of 3,000 students settled down in Shanghai each year. In Beijing, returnees who have started enterprises were offered a value added tax (VAT) exemption and the possibility to convert and export their profit abroad freely. In 2000, for instance, Shenzhen spent RMB 30 million (equivalent to USD 3.4 million) to support the establishment of enterprises by *haigui*.

To mobilize the third strategy, Chinese students overseas have established various transnational organizations, which are all part of the China Communist Party United Front Systems. The organization's mandate is to mobilize Chinese citizens and ethnic Chinese people with other nationalities to continue to pursue and contribute to China's national rejuvenation. The Chinese network of transnational students abroad contributed to knowledge transfer and mapping of Chinese students abroad. Associations, such as China Overseas Study Service Alliance (COSSA), Beijing Overseas Study Service Association (BOSSA), and Western Returned Association (WRSA), have created a strong network of Chinese students abroad. As a result, Chinese students remain closely linked to various governmental and informal associations. Chinese students are required to register as a member of these organizations or risk non-accreditation and

verification of their international qualification. There are more than 2,000 overseas Chinese student associations and 300 professional bodies of Chinese students abroad. The informal networks are located in almost every major university around the world.

5.1 Government interventions for returning lions

An African adage says, "Until the lion learns to write, every story will glorify the hunter." This metaphor is often used to reference Africa's history and the colonial masters to encourage young Africans to be the narrators of their global position and the continent's future. The current generation of Africa–China scholars will best narrate the Africa–China story. Therefore, it is imperative to approach the current cohort as an investment in Africa–China's future, to reject the current western narrative of a neo-colonial relationship, and to sustain a long-term relationship between China and sovereign countries in Africa.

Former African Union (AU) Ambassador to the USA, Dr. Arikana Chihombori Quao, has called for a similar concept to the *Huiguo Fuwu*, through the return of skilled African diaspora to fulfill their national duties and improve the delivery of basic services, such as healthcare, access to water, energy, and internet, where large deficits still exist. In doing so, improved institutions will give rise to opportunities and investment, ultimately changing the African narrative on the global plane. Central to achieving this ideology is the Africa Diaspora Development Institute. Through various regional stations, a one-stop-shop for information, culture, business, heritage and opportunities will be at arm's reach for Africans in the diaspora and allow for them to identify opportunities through which they can serve their respective countries in the aforementioned vital industries.

African countries and China need to see the return on investment in education and human resource development in Africa. This is more auspicious as FOCAC marks its 20th anniversary. However, to leverage African graduates' unique China expertise from academic training, bespoke Africa–China initiatives can be incorporated into the scholarship program. Benchmarking on China's success with brain gain, these should include:

5.2 Competitive education for employability

China has committed to raising its universities to international standards and has committed to investing resources into upgrading its higher education profile by introducing initiatives such as the 211 Project (Ministry of Education, PRC 1991).¹⁶ African students in China should receive an education that makes them attractive to Chinese companies in Africa. If these cohorts of African graduates will be

¹⁶ The 211 Project was initiated in 1995 by the Chinese government, implemented by the Ministry of Education. The project aimed to strengthen about 100 institutions of higher education and key disciplinary areas as a national priority for the twenty-first century.

promoting Chinese partnerships and principles when they return, they should reflect the best of China. The Chinese government should place a high proportion of African scholars in the "Project 211" universities and/or globally rated universities, to export the best Chinese education to Africa. At present, returning graduates are not channelled into Africa–China projects and they are also unable to compete in the job market. Returning African graduates are labelled "orphans of Chinese education" in their home countries as they remain unemployed for long periods. These graduates often resort to seeking opportunities in North America, Europe, Australia, or return to China for lower-level jobs.

A systematic and deliberate approach would ensure that African countries coordinate their pipeline of China experts. Post graduation, the government can supply candidates with positions in Chinese multinationals, based in Africa and beyond. Second, African states can direct scholars to focus their studies on disciplines that are key to African development, such as STEM, environment, geopolitical issues and regulatory affairs.

5.3 Skills pool record

From the African side, Chinese embassies in Africa can assist with developing a database of African students in China. Chinese scholarships are offered through multiple channels. Students leave their home countries with a tourism visa, which is only converted to a student visa once in China. Given the well-administered student program in China, the Chinese Ministry of Education, under the China Scholarship Council, can provide this information to the African counterpart. From the database, the African counterpart can monitor the progress of the students and prepare pipeline channels for their strategic employment upon graduation in industries that are key to African industrialization, regional integration and further harmonization of Africa–China relations.

Chinese student associations overseas have received scrutiny for their association with the Chinese foreign mission. While some have expressed concern about the close relationship, the relationship ensures students understand and are aligned with their national agenda. Simultaneously, embassies could also highlight priority issues related to China–Africa geopolitics. The embassy and students' relationship proved crucial during the COVID-19 pandemic, with the Chinese embassies supporting their overseas students abroad. Through the association, the embassies were able to quickly disseminate information and care packages. Multiple African student groups have been established either at the provincial level or by nationality, in person and/or via WeChat. While governments may not have the resources to manage the database, African embassies or African Union offices in China can support existing social media groups and ensure they receive ongoing support. As foreign nationals, students are *de facto* brand ambassadors. Embassies can provide guidance on which fields of study would contribute toward national interests.

5.4 Internships

In an effort to avoid contributing to Africa's brain drain, a condition of the Chinese student visa that is issued to Africans requires that graduates return to their countries of origin/residence immediately upon completing their studies. Consequently, the Africans return unable to perform an internship post-graduation. The lack of work experience from a Chinese or China-based company makes them uncompetitive in the job market. African graduates from North America and Europe return with a more competitive advantage. Therefore, the Chinese scholarship award to Africans should, similar to China Scholarship Council (CSC) outbound programs, include a year of service on China–Africa projects.

5.5 Skills mobility

With the implementation of the AfCFTA, African graduates will return with growing opportunities from regional integration. The AfCFTA will lead to more outstanding professional and educational mobility. African countries, similar to first-tier cities in China, will start competing for the best skills and talent at the local level. The movement of highly skilled labor will increase between African countries, with high economic activities. For graduates from China, their mobility will follow Chinese projects. Countries eyeing increased investment from China should position themselves to attract highly qualified African professionals from the top universities in China.

Africa constitutes multiple countries; lessons from China cannot be applied in a unitary approach. However, to leverage African students' unique expertise under this exchange, the bespoke Africa–China initiatives can be incorporated in the scholarship program. Looking at examples from China, this could include financial and in-kind incentives, such as easy visas, which would be equivalent to the hukou (a localized resident permit system) that Shanghai introduced, leading to the average Chinese *haigui* choosing Shanghai as a preferred destination. Countries with established China Special Economic Zones can leverage the zones to set up a parallel returnees' enterprise zone (*Haigui liuxuesheng chuangye yuanqu*).

Western scholars, while strongly critical of Africa–China relations, have created student programs to develop China expertise. African countries can also look to the west to measure how other countries have taken a proactive China approach to their human development programs. Under the Obama administration, the USA introduced the "100,000 Strong Initiative." The program was launched in 2010 by then-Secretary of State Hillary Clinton in Beijing. The foundation focuses on encouraging young generations of Americans learning Mandarin and studying in China (U.S. Department of State 2011). The Australian government introduced the "AddChina" toolkit program to encourage Australian students to study in China (Australian Government 2017). Both programs are part of government initiatives to study abroad. Both programs are positioned to build better links with China in higher education. Various universities in Europe have established "China Law Centers," which include an academic semester and a law internship in China.

6 Concluding remarks

What returns will China derive from the education of African students? In a globally competitive world, leading technology innovation, defining value systems, as well as promoting one's national and socio-economic development models are critical determinants of success. Due to the colonial past, Africa's ideology in education was shaped by western philosophies, but dynamics are shifting. Education is being "decolonized," as African countries explore new models and systems for modernization and internationalization. Developing nations, such as China, Chile, and Brazil, have used education to propel innovation in their countries and advance their national interests.

In the FOCAC Action Plan 2019–2021, China commits to support African scholars' development through university programs, including developing domestic university research through the 20+20 Program. However, to manifest this support, African education policymakers, African embassies in China, and Chinese education institutions need to go beyond the western model of merely providing scholarships and counting the number of graduates as indicators of success. A more global, nuanced approach is required; interventions should produce more than just certificates. African scholars need a comprehensive program that prepares them for their careers, in which they apply their technical training but also leverage their strategic value. In essence, they are the grassroot ambassadors that will in the future draft policy and sustain the cooperation between African countries and China.

Both sides need to be more intentional to leverage the new cohort of graduates and integrate them into an Africa–China strategic partnership. The investment made in education through FOCAC should generate economic, social, and political dividends. A coordinated and proactive approach should include collaboration between Africa–China alumni associations and Africa–China chambers of commerce. Beyond graduation, there should be programs that facilitate internships and incentivize employment pipelines. These programs will engage students as stakeholders, appeal to their sense of national pride, and accredit their contribution to Africa–China cooperation.

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