EDUCATION FOR DEVELOPMENT IN AFRICA: RETHINKING HIGHER EDUCATION IN CABO VERDE

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Sub-Saharan Africa continues to lag behind the rest of the world in nearly all categories and indicators of human development and economic progress. The reasons are many. The challenges are complex and daunting in scale, requiring solutions and interventions on multiple fronts. One big deficit in the continent's post-colonial trajectory has been human capital, especially in the component of formal education and skills training. Historical and comparative evidence shows that no modern society today has been able to achieve sustained levels of growth and improved living standards without the requisite human capital endowment. Africa's transformation and prospects in the age of globalization – when growth and technological change are more knowledge-intensive than ever – must necessarily involve a revolution in its human capital stock.

The paper draws on findings in the broader literature as well as from personal experiences as a professional in higher education systems in both Africa and the United States, including my brief involvement in the public university of Cabo Verde. The paper offers a personal reflection, rather than a scientific diagnosis, on the role of education in socioeconomic development in Sub-Saharan Africa, henceforth Africa.[1] My analysis and the views expressed in this paper are entirely my own.

The paper focuses exclusively on higher education. This in no way implies a lesser role or importance for other levels or types of formal and informal education or other aspects of human capital. Indeed, this paper will emphasize the critical need to focus on improving quality of education at all levels. I will argue that countries like Cabo Verde should be investing much more to strengthen and expand secondary and post-secondary technical and vocational education. Tertiary education, I will argue, is over-supplied and much of it likely misaligned with the needs of the economy and demands of the job market. Finally, the paper's focus on education is not suggesting that the complexities and challenges of economic development in Africa can be reduced to education.

The paper is divided into two main sections. The first section draws from research findings on human capital, and discusses some common issues and challenges that higher education faces in Sub-Saharan African countries. The continent, of course, is incredibly diverse, with educational systems in its many countries facing different sets

of challenges and possibilities. My discussion of the common strengths- and weaknesses will not be applicable to all regional countries or all their individual tertiary institutions. The second part of the paper, therefore, focuses the discussion on one country case, the small island country of Cabo Verde in West Africa.

Building a quality tertiary education sector, with globally competitive institutions of higher education, does not happen overnight. This is a hard problem that takes time. It will require a broad universe of interventions, investments, and changes. This short essay makes no pretense to offer solutions or imply the answers are simple. The paper is, however, firm in its conviction of the urgent need for a radical rethink of higher education in African countries like Cabo Verde. No amount of tinkering or episodic 'reforms' will be sufficient. Nor building new campuses and constructing gleaming buildings. Increasing education spending and giving unlimited financial resources to universities, while welcome, will not be enough to produce quality higher education if we do not bring profound changes to some core areas. In the second part of the paper, I discuss four critical areas of higher education that require a fundamental rethink.

Human Capital, Socioeconomic Development and Post-Colonial Africa

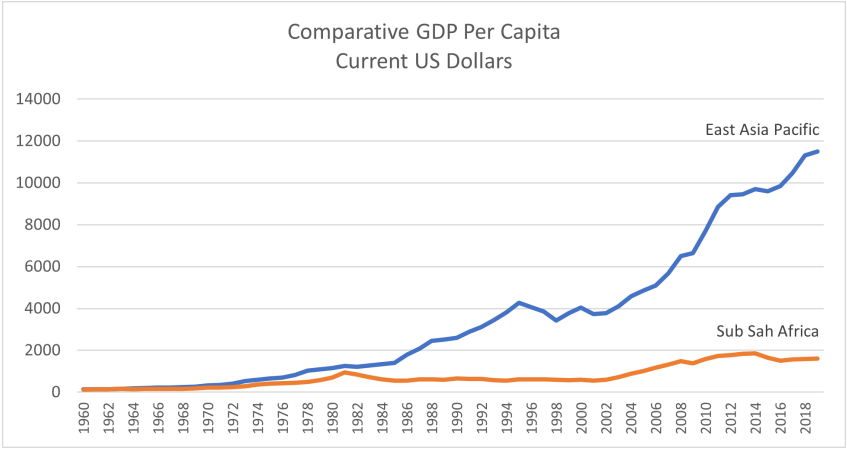
The inadequacy of human capital continues to be a binding constraint to growth and human development for many African countries. It is not coincidental that Africa lags behind the rest of the world in every measure of economic growth, living standards and technological progress as nearly all of the continent's countries rank among the bottom countries with the lowest human capital indicator. Descriptive statistics show that the world's least developed and poorest countries – a list crowded mainly by African countries – are characterized by low levels of human capital.[2] No African country appears in the list of 50 countries with the highest human capital scores. Only 3 make it in the top 100. Many forces and factors, internal and external, have been at work to transform Africa – the world's wealthiest region in natural endowments and mineral treasure – into the world's poorest region. Africa has many ills, and there are many causes of those ills, but the single biggest missed opportunity of post-colonial Africa was its failure to invest effectively and continuously in building up the stock and productivity of its human capital.

In the euphoria and high expectations of early independence years of the 1960s, Sub-Saharan African countries were in equally good position to achieve socioeconomic progress as were countries in Asia and Latin America (see Figure 1). In fact, the prospects were much brighter for many countries in Africa than for countries in East Asia, outside of Japan. Indeed, any reasonable observer would have predicted that a Ghana, Nigeria, Tanzania, or even a Mozambique had much better prospects for moving up the

development ladder than a South Korea or communist China. At any rate, countries in the two regions appeared to be in roughly the same starting point and conditions. Countries in both regions had similar structural features and conditions: they were scarred by historical legacies and brutality of colonialism; peripheral and marginalized in the world system; largely rural, with economies dominated by the primary sectors; thin or non-existent secondary sectors; mass poverty and illiteracy; brutalized and destroyed by world war and proxy wars of the Cold War.

Seven decades later, these two regions are at opposite ends of the spectrum of global power, wealth, technological progress and human development. The raw data on their relative performance are widely known. The data shows impoverishment in one region decade after decade, but rapidly expanding human development in the other. Between 1961 and 2019, GDP per capita incomes in East Asia and Pacific expanded annually by 3.7%, while in Africa it grew under one percent at 0.6% during the same period.[3] Africans became poorer relative to the rest of the world. If in 1970 the average citizen of East Asia was only 43% richer than the average African, by 2020 she was 620% richer than the average individual in Africa. Every two decades or so, the East Asian countries were able to double the incomes of their population. It will take Africa approximately 140 years to double its current GDP per capita income today of $1,600 if it continues to grow as its historical average rate. Even if incomes and growth in East Asia were to stop and freeze at current levels, Africa will have to expand incomes by 10% annually for two decades simply to catch up to East Asia's current per capita income.

Figure 1



Source; Data Bank, 2021.

What is today a yawning and seemingly insurmountable gap in national wealth, technological progress, economic competitiveness, and the prosperity of their populations did not exist at the time of independence. Equally troubling is not just the absolute gap in wealth and power today between the two regions but the rapid rate of separation in the fate of the regions. Why this divergence?

Our understanding of economic progress and human development remains imperfect, and we cannot point to the experience of any one country as a model. Nonetheless, from the standpoint of standard economics theory, we have a good understanding of the general elements behind socioeconomic progress: efficient use of resources, capital (physical and human) accumulation, and technological change (McArthur and Sachs, 2002). In East Asia, these conditions combined to result in a self-perpetuating cycle of growth and progress, while Africa fell behind. The link between capital accumulation, especially human capital, and technological progress is especially noteworthy. It is not coincidental that the 27 of the top 30 countries with the highest levels of human capital are also the world leaders in innovation.[4] Among these 30 countries are also 23 of the world's most competitive economies.[5] Lamentably, the reverse is also true. The world's poorest and least innovative countries are also the worst positioned in human capital indicators, and they are nearly all Sub-Saharan African countries. Essential to knowledge production, productivity, and technological change, human capital is the factor that separates success from failure.

As noted, there are numerous internal and external factors that account for the different development outcomes in the two regions, Africa and East Asia. This is not the place to discuss or debate these. A vast literature has explored the development paths and outcomes in each of the respective regions. It is also important in our analysis of successes and failures of the African continent to be aware of the many stereotypes, tropes, caricature, and unsubstantiated representations of African countries as failed, corrupt, and unstable. Notable variance exists inside each of these massive and heterogeneous regions, as individual countries perform differently from the overall regional pattern. Indeed, the development experience and paths taken by developing countries, including the East Asian high performers, are characterized by diversity. In addition, an overlooked but critical factor in East Asia was an external geopolitical context, namely United States global strategy, that resulted in huge development payoffs for countries like Japan, South Korea, and Taiwan, that benefitted from US aid, protection, and market access.

No account of Africa's post-colonial development experience is complete without understanding the scars of its historical past, the post-colonial and neocolonial

legacies, power asymmetries in the world system, the unequal and unjust rules and functioning of the world economy, the many different and corrosive forms of foreign interventionism and manipulation. We cannot blame only external forces for our continent's poor performance, however. Internal factors have been many also.

Among the most consequential of these internal factors was poor governance and the perpetual crisis of the state. Africa is rich in natural endowments but poor in governance. Many people attribute Africa's ills to ethnic fragmentation and conflicts. However, if and when these become salient, they have been an effect and not the cause (Davidson 1992). These factors become activated as a result of the underlying political crisis of governance and state formation. Growth and human development are difficult and unsustainable in the long run in a context of sociopolitical instability, weak governance and ineffective public institutions. Importantly, these political and institutional factors have engendered growth collapses (Rodrik 1999). The capacity and effectiveness of human capital investment is itself conditioned by these enabling factors (Sen 1999). From Zimbabwe to Côte d'Ivoire, we have witnessed many individual African countries with high performing at certain periods but only to collapse as a result of crises of the state and governance. We had plenty of outside help, and this continues today. Yet we have been complicit in our own failings, including in the area of human capital investment.

Institutional factors, such as governance and the capacity and management of the state, were critical factors driving East Asia's overall economic progress and human capital achievement (Evans 1995; Haggard 1990; Acemoglu and Robinson 2001). East Asia constructed a developmental state. Africa did not. We can build many schools, hospitals, and businesses. However, these cannot function effectively in the context of political instability, civil wars, social disintegration, and bad governance; nor can we educate and train the teachers, doctors, and entrepreneurs we need under such conditions. Indeed, Africa's top social and economic performers, such as Cabo Verde, Botswana and Mauritius, are also the continent's leaders in social peace, political stability, and good governance. While correlation is not causation, it gives us important clues.

Human Capital and Success in the Modern World Economy

This paper focuses only on the educational dimension of human capital. However, human capital is a comprehensive concept. It encompasses much more than simply formal education, training and skills acquisition. An individual's health, informal education, life expectancy, learning-by-doing skills, self-education, and even moral values are also important constituents of human capital. Moreover, as Sachs (2005), Diamond

(1999) and many others have argued, the health dimension of human capital weighs heavily on the possibilities of socioeconomic progress of societies. Education is key, however. Importantly, one finding in the literature is the positive impact of education and training on these other components of human capital. Research shows the benefits of schooling attainment on the individual's health, for example. Ensuring human capital is healthy and well educated is the essential cornerstone of policy, unleashing the full productive and creative energies of people. Successful societies achieve a virtuous cycle whereby forming human capital leads to economic progress which, in turn, enables more expansion and improvement in human capital.

In nearly all dimensions of human capital and wellbeing, the African continent lags behind the rest of the world. From basic literacy rates, to expected years of schooling, to tertiary enrollments, the ratio of the adult population with university and post-secondary training, to tertiary graduation rates, the continent lags far behind the rest of the world.

Table 1 Human Development Indicators 2019

	Human Development Index	*Exp Yrs Schooling*	*Mean Yrs Schooling*	*GNI PC PPP 2017*
Arab States	0.705	12.1	7.3	14,869
East Asia and the Pacific	0.747	13.6	8.1	14,710
Europe and Central Asia	0.791	14.7	10.4	17,939
Latin America and the Caribbean	0.766	14.6	8.7	14,812
South Asia	0.641	11.7	6.5	6,532
World	0.737	12.7	8.5	16,734
Sub-Saharan Africa	**0.547**	**10.1**	**5.8**	**3,686**

Source: United Nations Development Program, *Human Development Report 2020*

Educational attainment, as measured by years of schooling and mean years of schooling for adults over 25 years old, Africa ranks last in the world, as shown in the figure below. Statistics from the United Nations Educational, Scientific and Cultural Organization (UNESCO) shows that Sub-Saharan Africa has the lowest tertiary enrolment levels in the world. Tertiary enrollment, as a ratio of the total population of the corresponding university age group, is an important indicator of a country's capacity to absorb new technologies and innovate. As noted below, the quality and relevance of such education is far more critical than absolute numbers. Yet even in terms of absolute numbers, Africa lags behind. Its gross tertiary enrollment ratio of 9% is far below the

world average of 39% and not even close to East Asia's 48% or the above 70% ratios of Europe, North America, and other high income countries.[6] No African university appears in the top 100 top universities in the world (numerous East Asian universities do) in any of the widely cited rankings. The first universities to appear in the top 300 are all concentrated in South Africa.

Continent-wide indicators and averages, of course, mask important variance across African countries, and obscure improvements that individual countries may be making over time. A handful of countries on the continent have consistently out-performed regional peers as well as other developing countries. Mauritius, Botswana, Rwanda, Cabo Verde, and the Seychelles have been regional leaders in many categories of social, economic, and governance performance. South Africa continues to be a continental leader in many areas of education attainment, for example, in addition to having internationally respected universities. Despite facing so many inhospitable conditions, such as lack of resources and brain drain, individual universities all over the continent are performing at a high level.

Notwithstanding individual high performers and improvements over time, the reality is an African continent that occupies last place in nearly all dimensions of human capital and human development. Africa lies on the outer periphery of global knowledge production, technological innovation, and material progress. Africa is not a technology and innovation leader. While pockets of innovation exist on the continent, African countries are not leaders in innovation, and the rate and scale of innovation on the continent is paltry. Since knowledge creates more knowledge, the risk is that Africa falls further and further behind without sustained improvements in human capital. Today, its disadvantages in human capital are likely to weigh more heavily on social and economic progress than in the past. On the other hand, several East Asian countries appear among the handful of countries in the world that dominate innovation, as measured by new patents in products and processes. As noted, a global economy increasingly based on knowledge capital, not natural endowments, as the basis of national wealth creation and human development may mean that Africa falls further and faster behind the rest of the world. To the extent human capital drives growth and development, these accumulated advantages and disadvantages build up and multiply over time. Africa may not be able to catch up to global leaders. On the other hand, globalization may offer an opportunity for catch-up if Africa can create the necessary internal capacity to take advantage. The age of globalization makes cross-national knowledge flows, knowledge spillovers, and learning easier and faster provided we have the skilled and educated people to capitalize on it. The university becomes a vital resource in this process of knowledge production, dissemination, absorption and learning.

Table 2 Comparative Literacy Rates, Percent of Adult Population, 2020

COMPARATIVE LITERACY RATES 2020 PERCENTAGE OF TOTAL ADULT POPULATION AGES 15 AND ABOVE	
Europe & Central Asia (excl. high income)	99.07
East Asia & Pacific	95.91
Latin America & Caribbean	94.45
South Asia	73.65
Arab World	73.36
Sub-Saharan Africa	65.85

Source: World Bank WDI 2021

There is widespread acceptance, based on theory and practice, that human capital is essential to socioeconomic progress for any society. A vast literature and empirical research, especially in the field of economics, establishes the role of human capital in development (Barro 2001, 2003; Becker 1992; Romer 1990). The only debate about human capital revolves around the precise channels and magnitude of its impact. Human capital is essential to individuals to achieve their full human development potentials as well as essential to society and the economy. In other words, it has both private and social returns, particularly investment in its education component. Education has direct benefits for individuals as well as for society and the economy. The broader literature establishes the increasing private and social rates of returns to educational investment. Human capital accumulation, such as increasing the skills, schooling, training, and health of individuals, directly impacts economic growth through increased productivity and creativity (technological change). As McArthur and Sachs (2002) emphasized, the link between improving human capital and technological change creates a dynamic, self-perpetuating virtuous cycle as a result of the technological learning and feedback effects. Knowledge begets new knowledge. Based on science, learning, and creative energy of people, each technological advance spurs new innovations, more learning, and greater prosperity-enhancing productivity and competitiveness.

Empirical research shows the positive and significant impact of education on economic growth, especially secondary and post-secondary education (Barro 2003; Englebrecht 2003). Barro (2003) has found that education has a positive impact on an economy's growth performance. The relationship between education and growth is strong, with each additional 1.3 years of schooling producing an additional half a percentage points in economic growth. The impact of education is even higher when we take into account the *quality* of education, and not just overall attainment. Human

capital directly impacts the economy through improved productivity. Human capital also affects a country's ability to adopt and absorb technologies as well as its capacity to innovate. High levels of educational attainment is also associated with several positive socioeconomic outcomes for individuals, such as higher earnings, higher employment rates, better health.

Human capital, especially higher order human capital such as advanced training and schooling, may be even more important for developing countries. This idea was not widely shared in the past. Africa's post-colonial development model – of monoculture and primary production – dampened the demand and policy attention for higher levels of skills. In many ways, the continent's poor performance in human capital formation is likely a function of its post-colonial development model. Much like Latin America and other parts of the global South, post-colonial Africa remained wedded to the primary production economic model based on low-skill, low-technology, export-oriented extractive industries and monoculture. This model of development did not require that societies and governments invest in human capital. People like Kwame Nkrumah and Raúl Prebisch, along with insights such as Dutch Disease from economics and development studies, provide some insights as the many reasons and forces at work to account for this post-colonial development path. But Africa may also have been victim of bad advice from foreign consultants, aid donors, and international development agencies regarding human capital. Standard economics theory had implied that high skilled human capital was unimportant for developing countries. International development agencies in the past, for example, were inclined to discourage investment in higher education by African countries. However, much research and common sense suggest the opposite (Cerina and Manco 2018). While the type and relevance of the human capital still matters, research shows that higher skilled human capital is especially critical for growth in developing countries. Higher order human capital is crucial for a society's ability to adopt new technologies, thus facilitating technological catch-up and building innovation capacity over the long run.

Despite starting with similar initial conditions and levels of progress, Africa and East Asia quickly diverged in their development paths and performance. By any measure, the East Asian region is a development success story. A critical factor driving East Asia's successful path since the 1960s has been the region's investment in human capital. Indeed, since the 1960s, the countries from the so-called periphery that have made it into the high income category have been mainly East Asian, excluding the oil-producing countries or tiny, tourism-based small islands from other regions.[7] Indeed, in terms of the upper end of the high income category comprising the most technologically sophisticated, globally competitive, advanced industrial countries, the pathway

from the periphery to this upper echelon has only involved East Asian countries (Haggard 1990).

There is universal consensus on the critical importance of one factor in East Asia's success – human capital. Indeed, East Asian countries so effectively invested in human capital that they lead the world today.[8] East Asian countries devised a deliberate human capital strategy that started with forming skills and learning to absorb technology and knowledge produced elsewhere, capture parts of global value chains, and build from there. As these countries moved up the development ladder and technological frontier, from unskilled, low technology production to high skills, knowledge-intensive production, they proactively adapted their human capital investment accordingly. Countries like South Korea and Singapore started as poor, agrarian, war-torn countries, lacking natural resources, and brutalized by decades of colonial rule. Investing in human capital was made a national priority, and sustained across many decades and changes in government. Building a skilled and well-educated labor force was at the heart of this human capital strategy. In 1978, China was one of the poorest countries in the world, closed, isolated, with a famine-stricken agrarian population. Today, the world stands in awe of China's meteoric rise and conquest of world markets in less than five decades. Its strategy to attract foreign capital and technology, build up infrastructure, and adopt significant market reforms have been cited as critical factors driving its remarkable progress. Yet we forget that China today is also the world's largest producer of university graduates, including graduates in the sciences and engineering. Education has supported China's modernization. Importantly, human capital investment policies adopted by China and the other East Asian countries were strategic, phased, aligned with development goals and changing labor market demands. This allowed them to supply the skilled and semi-skilled workforce required by a changing economy and, subsequently, also provide the relevant higher order skills necessary as their economies moved to the technological frontier.

No suggestion is made that Africa must replicate what East Asia did, or adopt the same educational systems, programs and enrollment levels. Each country has to adopt a system that is relevant and suitable to its conditions, its level of development, and growth needs. Indeed, given Africa's level of industrial underdevelopment and distance from the technological frontier today, building educational systems mainly to train rocket scientists, computer engineers, or biopharmaceutical technicians may not be the wisest use of investment resources. Such individuals would not be able to find employment as these industries do not exist or employment opportunities in them limited. The goal for Africa is not to copy East Asia's education systems and workforce training programs. The goal should be to replicate East Asia's results.

Nonetheless, the East Asian experience in building up human capital does offer useful lessons for Africa. The real lesson from East Asia and other parts of the world is not the scale of their human capital investment but their ability to achieve both quality and relevance – through a dogged, disciplined approach that aligned educational and training systems to development needs and adjust these systems as their economies and labor market demands changed. At all levels of education, the East Asian countries introduced policies and mechanisms to ensure rigor, merit, performance measurements for schools, teachers and students, and strict examination for progression at each tier. As a percentage of GDP, Cabo Verde and many other African countries spend more on education than France or German or even Korea, but they are simply not deriving the same quality and socioeconomic impact from such investments.[9] As research has shown, the quality of education is far more important to economic growth than schooling attainment (Barro 2003).

The dependency of Africa and the global South extends beyond economics and technology, as illustrated in the bad advice not to invest in human capital. A country's capacity to produce and apply knowledge is not just vital to its socioeconomic progress but also its liberation and capacity to shape its own destiny. It has often been said that African countries achieved their formal political independence but never attained their true self-determination because of the vestiges of colonialism and structures of neocolonialism that penetrated all aspects of the economy and politics of the newly independent states. Africa also failed to achieve intellectual independence, what Aina (2010, 23) has referred to as "intellectual self-determination."

Africa and the Challenges of Development in the 21st Century

This section of the paper reflects on some of the impediments to human capital formation in Africa, focusing exclusively on the tertiary education component. Given a vast and diverse continent, with individual countries facing different situations of challenges and progress, the discussion is thus limited to the country case of Cabo Verde. While I believe there are common challenges in higher education across all African countries, I do not make any claim that the Cabo Verde case is generalizable.

This paper focuses on only a limited number of issue areas regarding higher education in Cabo Verde: organizational model and governance, curriculum, teaching staff, and quality assurance.

In Cabo Verde and elsewhere on the continent, these four areas are characterized by serious weaknesses. The African university needs fixes in many areas, and not simply in these four areas. This is a short paper, and thus cannot hope to address the full panoply of issues. An obvious factor all institutions and countries face is financing.

I also omit the critical importance of research. As educators, we know intimately the wide array of factors inside and outside the classroom that condition the learning outcomes of students – from their socioeconomic background, mental health, to their sense of belonging and inclusion in the classroom regardless of gender, sexual orientation, religion or any other differences. Yet in the absence of serious interventions to improve these four areas, no amount of financing or creative classroom inclusion strategies will result in the knowledge production and quality learning and skills training that African countries so urgently need.

Changing How We Do Tertiary Education in Africa: The Case of Cabo Verde

At present, higher education in Cabo Verde is not serious. It is, at best, an improvisation. It is a sector void of quality. Nevertheless, it is producing hundreds of graduates annually without the knowledge and skills to prepare them for personal advancement and social contribution in a 21st Century global economy. These are strong words. I remain firm in this assessment, and my reflections below will substantiate it.

Politicians, university leaders, and other defenders of the current higher education sector in Cabo Verde may reasonably argue that my analysis is either inaccurate or, worse, vindictive and malicious. Indeed, not a speech goes by without politicians and sector leaders touting the supposed "quality" of higher education and the institutions. As a factual matter, as discussed below, we lack even basic statistical measurement on performance and outcomes in the higher education sector, thus enabling politicians and university officials to make whatever claims they wish. Yet we may not necessarily need to await all measurement data. One glaring data point or suggestive indicator of the sector's low quality is this: politicians, rectors, and well-to-do families in Cabo Verde send their children abroad for university study.

Before delving into a substantive discussion of higher education in Cabo Verde, it is fair to make some initial observations. First, it is a young sector less than two decades old. Admittedly, we cannot expect. Second, we take note of the fact that isolated and individual cases of quality teaching and learning do happen. There are numerous individuals among the teaching staff, university officials, and administrative staff who are superbly competent and dedicated. Third, offering quality higher education in a social and geographic setting like Cabo Verde it is not easy. Cabo Verde exemplifies this continent-wide fragility in ensuring accessible and quality education at all levels. Providing access to quality, affordable education, especially in the secondary and post-secondary cycles, is a difficult and expensive challenge for most African countries as a result of low population densities across vast distances or geographically fragmented territories. In a geographically dispersed archipelago like Cabo Verde, ensuring access

to quality, reliable services and public goods of all types, including quality higher education, has always been a daunting development challenge. It is neither viable nor serious to provide post-secondary training and higher education in each of the nine inhabited islands, most of which have tiny populations. At the same time, families in the outlying smaller islands who see promise of such training for their children cannot afford to send and sustain them in the two main islands where these institutions are concentrated.

For me, these observations above make it more urgent and critical, not less, to break with the routine of improvisation; to make a serious, hard, difficult reexamination of the sector and embrace the deep structural changes necessary. Of great value to individuals and to the nation, a university, and a university education, is a serious endeavor. The issue is not simply of practical significance but it also entails a moral obligation.

Faced with the deficiencies and low quality of tertiary education in Cabo Verde and the rest of Africa, we cannot find solace in arguing that the continent is only recently independent or that the sector in Cabo Verde is only two decades old. Cabo Verde nor any other African country has the luxury of time, as the continent falls further and further behind the rest of the world. It is not the passing of time that produces quality, but rather deliberate and continuous policies, measures and mechanisms. If the sector is broken, a fix is needed. A strategy of waiting or a *laissez faire* approach are not adequate. It is precisely because of its relative youth that we should we rethink higher education in Cabo Verde. It is much easier to engage in root-and-branch remaking of a young sector than one with decades of accumulated vices, routines, baggage, and vested interests. The great Mancur Olson reminded us that nations and organizations are susceptible to 'institutional sclerosis', as special interest groups and vested interests accumulate over time, colonize and capture the organization to serve their narrow vested interests and thus reducing efficiency and blocking serious reforms.[10] Finally, as noted, the need to rethink higher education in Cabo Verde goes beyond development and time. It is a moral issue. Students and their families, nearly all of modest means but having great expectations, are asked to make big sacrifices for a university education that ill-prepares them.

An Overview of the Sector in Cabo Verde

Cabo Verde has always prided itself in the education arena. Culturally and historically, its people have attached high value to education as the primary vehicle for individual social mobility. The country has been an outstanding performer in terms of ensuring universal access to primary and secondary education. In many ways, it has

also excelled in ensuring ample supply of tertiary education. Cabo Verde has one of the highest literacy rates in Africa, including female enrollment and literacy rates. Considering the near-zero conditions it inherited at independence in 1975, the country made notable progress in education and other areas of basic human capital. In general, Cabo Verde has been regarded as – and the comparative data shows – having invested reasonably well in human capital development since independence. The country spends a very respectable amount on the education system, roughly 5% of its GDP and typically 20% of the government's annual budget go to education. Like many African countries, Cabo Verde's is a young population (with an estimated 30% below the age of 14) but it is also an educated population with among the highest total and mean years of schooling on the continent. Cabo Verde performs especially well in the area of gender equality in education. Indeed, an interesting trend we are seeing in both secondary and tertiary enrollment and graduation is the growing dominance of female students.

To its credit also, over the last decade or so Cabo Verde has invested heavily in providing post-secondary technical and vocational training. The quality and equitable access of these post-secondary are uneven. Nonetheless, this investment in post-secondary programs to build up specialized and semi-skilled workforce has been a policy success, especially as the economy has changed. Cabo Verde today is a highly tourism-based economy. An important policy decision was made, with financial support from Luxembourg, to create a tourism and hospitality training school that has been quite successful. As the economy has changed and living standards increased, new demands for semi-skilled and technically skilled workers have increased. The booming construction industry, telecommunications and simple light manufacturing associated with construction have opened up new opportunities. We lack reliable empirical study and data, but it is likely that the Cabo Verdean economy today is demanding far more of these post-secondary, vocationally skilled workforce than tertiary level skills.

While not part of the focus of this discussion, we should make a quick observation regarding an important aspect of human capital in Cabo Verde: namely, the history of heavy out-migration. A highly diasporic people, Cabo Verdeans have turned in large numbers to emigration in order to escape poverty and lack of economic opportunity in the homeland. As is often commented in the broader literature on migration in Africa, a heavy proportion of emigrants have been the highly skilled and educated. For instance, as noted below, up until recently, Cabo Verdeans pursuing university degrees had to go abroad to study. It is likely, many did not return upon completion. We cannot make any claims here regarding the scale or impact of any brain drain, or the impact of emigration on economic growth, as few empirical studies exists (Cabral 2009).

Today, the problem in Cabo Verde is not access or quantity of schools, including universities. The problem is not resources. The problem is quality, at both the secondary and tertiary levels. Quantity has come at the expense of quality. Cabo Verde's rapid expansion in enrollments and schools, at both the secondary and tertiary levels, far outstripped the country's organizational, financial, and intellectual capacity to ensure quality in the learning and teaching being offered.

The first university in Cabo Verde opened around 2001 – a private Portuguese enterprise with campuses in other Lusophone countries. Less than two decades later, there are 10 tertiary institutions in a highly fragmented sector. The sector emerged haphazardly, unregulated, a product of profit-seeking private, mainly foreign initiatives and political campaign promises. Unfortunately, during these first two decades of tertiary education in Cabo Verde, there were no structures or governing rules in place to ensure that higher education was aligned with national goals or that they meet any minimum national or international standards. No system was in place to ensure or challenge schools, administrators, teachers and students to deliver quality results at any level of instruction. More troubling, the schools themselves did not adopt or implement any internal mechanisms of quality control, as discussed below, including any mechanism to track student performance and learning outcomes. As in many African countries, Cabo Verde still today does not have a comprehensive national system to measure learning outcomes at any level of education.

Spurred by partisan campaigns, as different political parties vied for who could open the most "universities" on the most islands, higher education was treated with the same logic and approach as those used in the massification of basic and secondary education. This same centrifugal tendency, driven by the logic of partisan electoral contestation combined with regionalism, is visible in many other public policy areas as well as the very bureaucratic machinery of the state. Regionalism pressures are strong. Every island wants its own university campus or organ of public administration. Such an environment, with an unregulated sector and an object of electoral competition, politicians were quick to seize on any initiative that could be touted as tertiary education.

At present, there are ten tertiary institutions in Cabo Verde, for a population of half a million inhabitants. Most are very small and offer the same programs. None of the tertiary institutions are international accredited, nor were they established through any kind of rigorous process of domestic approval, licensure and accreditation. At best, what existed was delete ad hoc licensing formalities that did not rest on any explicit set of standards or qualifications. As explained below, until about two years ago, it was an unregulated sector, with no system of institutional or program accreditation

exists. Worse still, in Cabo Verde there is no national system of entrance examination or any kind of merit-based admissions process. Individual universities do not have any qualifications-based admission process.

Based on observational evidence and discussion with private sector employers, there are individual programs of study at one or two of the universities that are considered reasonably good, such as the accountancy program at one of the private universities. The sector as whole is not considered as having quality, as individuals and families with means and opportunity go abroad to pursue their degrees. The sector has thus expanded uncontrollably, inundated with foreign-based private, tuition-focused four-year institutions as well as other private, for-profit businesses offering specialized bachelors, masters and other degrees, certificates and diplomas. These "degrees" are not sanctioned by a national system of quality assurance let alone any international recognition or equivalence. No independent body outside the universities approves the degrees and diplomas. Besides the private universities, there have appeared a number of self-professed 'schools' and institutes offering post-secondary degrees and certificates, including MBAs and 'mini' masters degrees. Operating out of leased office spaces and converted residences, none appear to have a permanent, full time teaching staff. None of them are full time, in-house programs. Despite lacking sufficient teaching staff with doctoral degrees, the universities launched new masters degree programs and a handful of doctoral programs. By and large, theses masters and doctoral programs are entirely dependent on collaboration with foreign universities. Expectedly, this is a costly and inadequate model, as foreign instructors are flown in to offer one-week intensives.

Prior to the appearance of the first university, Cabo Verdeans who wanted to pursue tertiary study had to go abroad. Indeed, for most of the country's independent history, its young people pursuing university degrees did so in Europe, the United States, China, North Africa, and Latin America, which naturally raised many concerns about the potential "brain drain" (Cabral 2009). Public tertiary education began only in 2006, involving the merger of several preexisting, postsecondary public training institutes. It was only after 2009, however, that the majority of Cabo Verdeans pursuing university degrees were studying inside the country, not abroad. However, significant numbers of Cabo Verdeans continue to pursue their tertiary education abroad, although reliable data does not exist.

The establishment of private universities in Cabo Verde opened new opportunities for Cabo Verdean young people and their families, especially those in the lower income category who did not have access or means to go abroad for study. However, the private universities may have also given rise to unintended but predictable consequences

for the sector. The uncontrolled, unregulated appearance of private institutions offering tertiary degrees in Cabo Verde undercut the goal of quality. They put downward pressure on the sector. Completely dependent on fees-paying students, and facing intensifying competition from the growing number of private institutions being opened in an exceedingly tiny, overcrowded market, the private institutions did not dwell on having any rigorous admissions process beyond the ability to pay fees. Dependent on tuition and fees, they also did not have much incentive to fail students or introduce standards and performance assessments that would result in attrition or drop-out.

Based on the last published data in 2016, there were over 12,000 students registered in these institutions.[11] Newly released data from the recently established regulatory agency puts the figure at little over 9,000 students.[12] As noted, these institutions serve primarily the poor and working classes, as more well to do families and the political-economic elite send their children to foreign universities. In the absence of any national entrance examination or institution-based admissions qualification and examination, all students are accepted strictly on their ability to pay tuition irrespectively of the academic qualification and preparation for university study. From my direct experience, it was clear that a significant portion of secondary school graduates allowed to attend university did not have the adequate academic preparation and intellectual abilities to succeed at university. Moreover, in view of the unemployment or underemployment rate among university graduates, a good portion of each year's graduates will either not find a job or find employment in their area of study.

It is likely we are producing more tertiary graduates in Cabo Verde that the market can reasonably absorb in terms of quantity and relevance. We do not have any empirical studies or any data on this issue of tertiary graduates market insertion, employment and underemployment rates. Neither the universities nor the sector gathers statistics on number of annual graduates, their job placement, levels and types of employment, and related data. A glance at the structure of the economy and the main sectors of occupation reveal an economy with much greater demand for non-tertiary, post-secondary skills. In terms of occupation, over 40% of jobs in Cabo Verde were concentrated in four sector: retail and vehicle repair, construction, light industry, and restaurant and hospitality.[13] Another 30% or more is accounted for by public administration and defense, the primary sector, and education. General macroeconomic data reveals a micro economy characterized by structural, double-digit unemployment and underemployment, long before the pandemic. National accounts data also point to a staggering level of informal employment, nearly 52% of all employment in 2020. The rate of unemployment among secondary and university age cohort, 15 to 24 years old, has been alarmingly high, over 30% in recent years. Specific to our discussion here, double digit

unemployment rates have often characterized individuals with tertiary education.[14] Observational evidence suggests a high level of underemployment and mismatch between program of study and job placement for tertiary graduates.

It is worth emphasizing this problem of the lack of data. Measurement and data-driven decision making is not a strength in Cabo Verde's tertiary sector and institutions. In fact, poor or incomplete statistical data characterizes the entire education sector. As such, it is a major source of weakness for policy making and planning. The ministry collects some basic quantity data on all tiers of the education system. However, neither the ministry nor anyone else collects quality and policy-pertinent data such as student performance, school and program performance, graduation rates, job market placement, job market forecasting, and the like. Put simply, from primary to tertiary levels in Cabo Verde, performance and effectiveness are not measured.

Rethinking tertiary education in Cabo Verde will necessarily involve some form of rationalization. There are too many institutions for such a small population. Lacking critical mass, many of these existing institutions are unsustainable. Tuition-dependent, the majority do not have the scale to be effective. A couple of them have less than 300 students. The recently established public institution, the Technical University of the Atlantic (UTA), was previously a faculty of the public university. Created by government decree and with fewer than 500 students, it has had to rely mainly on government subsidies to be able to meet payroll for its teaching staff. A number of universities do not even have a website. The majority do not have a permanent, full time teaching staff, and depend heavily on adjuncts and part-timers. As discussed below, only a small ratio of teaching staff at all the universities in Cabo Verde has doctoral degrees. According to annual statistical report of the ministry of education, nationally only 14% of the over 1,300 instructors held doctorates during the 2015/2016 school year.[15] Unofficial statistics from the public university suggests roughly 37% of its teaching staff hold doctorates, but it is not clear whether these figures include part time staff.[16]

All the universities in Cabo Verde face severe financial difficulties. The basics of paying salaries is a monthly challenge and juggling act. Salaries for administrative and teaching staff are often delayed, partial, or prioritized for only full-time staff. Aside from weakening morale, another result is a perennial squabble that mainly harms innocent students as teaching staff either boycott classes or withhold grades until salaries are paid. Some schools have persistent difficulties paying their utilities and accumulate debts to their suppliers. Even the larger universities, such as the main public university with over 4,000 students, are financially precarious because of their heavy reliance

on tuition. Serving primarily the poor and working classes, monthly tuition revenues is perennially uncertain, uneven and, more often not, nonexistent from most students.

The Absence of Effective Planning, Regulation and Quality Control

In the sections below I discuss some of the principal deficiencies in the higher education sector in Cabo Verde, focusing primarily in the areas of governance, teaching staff, curriculum, and quality assurance. A crucial point to emphasize is the policy failure from the very beginning to regulate the sector and ensure minimum standards were met. The higher education sector was never planned and organized with any serious attention to produce objectively measured quality teaching, learning and research. Nor was any serious attention and sustained effort, on the part of policy or the universities, given to align the teaching, learning and research toward real national development needs.

Government policy has not helped to create and consolidate an effective sector. Rather than encourage consolidation and sustainability, governments succumb to regionalism pressures by promising universities on every island or fragmenting existing public institutions into smaller pieces. Aside from fragmenting an already weak sector, another result of this wayward policy is to disperse and dilute the limited public resources available that could be directed to higher education. In both direct support, such as budget support, and indirect support through student scholarships and financial aid, the government supports all these institutions, public and private. Public funding for higher education is already constrained in the heavily indebted small island economy. Government financial support for the main public university accounts for only 30-40% of its budget, and has been steadily declining over the decade. Support for research is non-existent.

Indirect support through financial aid is likewise limited and badly used. Rather than direct public financial aid to only the public institutions or to only strategic areas of study or based on rigorous merit or needs criteria, public resources are dispersed widely and seemingly without regard to demonstrated need, student performance, or impact. Predictably, a little aid may get to most students and families to support them during one or two semesters, but is insufficient to support them through four years of study. The lack of financial sustainability of these institutions has a knock-on effect on all aspects of a university that undermines quality education. Financial fragility not only means university cannot plan or support institutional research, they also cannot invest in building up their organizational capacity, technology and other resources to provide effective teaching and learning.

Rethinking Some Critical Areas

The deficiencies of higher education in Cabo Verde, the sector and the individual institutions, are too many to list or discuss here. Deficits big and small characterize all the ten universities in the country. I isolate a few issue areas to discuss, but these should not mislead us to think these are the only areas that need fixing. Even before the global pandemic these weaknesses were evident. As in nearly every developing country, university students face significant obstacles to their learning, such as the cost and access to technology, connectivity, textbooks and other school materials. Tertiary students in Cabo Verde today still attend courses using photocopied chapters or passages from books. As the majority of students may not have access to personal computers or the internet, online readings, classes and materials become a daunting challenge, as the pandemic illustrated. Internet and other telecommunications costs in Cabo Verde are very high, in addition to being extremely unreliable outside of the main urban areas. Many students come to the university from remote islands or regions, adding an additional layer of stress and frustration in terms of living conditions and basic sustenance.

Of the numerous areas in tertiary education that need profound changes, four are essential: organizational model and management, curriculum, teaching staff, and quality assurance. No short paper or essay as this one can justly address any of these four areas. As such, the discuss here touches lightly on these issues. Without rethinking how we do university education in these four areas we cannot hope to make significant progress in achieving quality tertiary education and the higher order human capital development requires. These areas are not only essential but hard and complex to resolve. Quick and easy fixes are not possible. The best practices and experience of others are useful guides but African countries must chart their own path. We can distill lessons and borrow relevant best practices from others. At the same time, however, we must avoid the superficial mimicry and importing inappropriate models, particularly from the former colonial countries. In fact, the problem in countries like Cabo Verde may be *too much* copying of inappropriate and outdated foreign models and practices.

Curriculum Innovation

We need to teach the right skills and teach them well. From elementary to university, curricula need to be re-engineered to transmit the right skill sets, values, and mentality that enables graduates to meet existing socioeconomic realities as well as thrive in the present world economy. It is commonplace to argue that university curriculum must be aligned with the country's development needs and strategy. This is true. In fact, the

entire education system of the country, not just the tertiary level, must be adapted accordingly. In Cabo Verde, our challenge in higher education is not simply the absence of quality but the irrelevance of the many areas of study offered – irrelevance both in terms of market realities but also in that some areas are more properly pursued at the post-secondary and vocational levels. Universities in Cabo Verde, despite some gradual but uneven progress, have far to go to ensure quality and relevance of tertiary curriculum that can produce the higher-level human capital necessary to meet development needs in the 21st Century global economy.

Redesigning and aligning curriculum to meet development needs and the job market demands will necessarily entail building traditional, discipline-specific skill sets, especially in the hard sciences and technology. Yet given the rapid pace of globalization as well as rapid pace of social chances in African countries demand a different approach to our curriculum rethink. Discipline-specific or technical skills are still useful, but skills and aptitudes for creativity, self-learning, innovativeness, problem solving, the capacity to self-learn, and entrepreneurship might be more valuable in the context of rapid change. Indeed, I argue that African higher education curriculum should be rebuilt around the foundational learning outcomes and skills we want, thus moving away from the traditional discipline-based programs. We should reinvent and build our curricula around asking: what are the essential skills, perspectives, values, and attitudes do we want all university graduates to have irrespective of their area of study? All our teaching, learning objectives, and discipline-specific curricula design, therefore, must be fashioned so as to accomplish these foundational goals. The low productivity and competitiveness of our economies, the vast array of structural impediments to growth, and thus the low rate of jobs creation require transversal skills that endow individuals with the ability to solve problems, adapt in different domains, self-learn new knowledge, and create their own self-employment and social mobility opportunities. Our graduates have to be equipped with the talents and capabilities to compete with graduates from South Korea and Germany in the knowledge-intensive, globalized economy. We need the high-end skills. However, we need skills all along the spectrum. We need to inculcate attitudes, values, and skills that emphasize entrepreneurship, critical thinking, innovation, experimentation, problem solving, and learning how to learn.

As used here, curriculum encompasses the fields of study, or structure, the contents of courses in the fields of study, and the pedagogical methods and strategies to deliver and transmit the contents to achieve the desired learning objectives, skill sets, and broader competencies. More still, it is worthy to aspire for a curriculum that also transmits the core moral values and ethics of community, social justice, and responsible citizenship.

Finding and implementing the right curriculum is the Holy Grail of universities the world over, especially curriculum aligned with job market demands and an ever-changing economy and society. This is one of the most challenging tasks universities face. Even the best universities in the world constantly struggle with it. Part of the reason finding the right curriculum is so daunting is that a university's curriculum is under constant pressures from external disruptions and changing demands: demographic changes, labor market demands, changing conditions of economic and business competition, industry and technological changes, social and political changes. Moreover, a quality curriculum involves much more than simply adopting the right fields of study or appealing degree concentrations and disciplines. We can have the most relevant and attractive fields of study and courses, but we gain nothing if we do not also ensure the proper content and qualified teaching, or do not have the effective pedagogy, or do not put in place mechanisms that allow us to monitor and measure the outcomes we desire.

University curriculum in Cabo Verde is characterized by weaknesses in all areas. First, in some ways, our curriculum is colonized in many areas. This is likely a common phenomenon in many parts of Africa. Colonial legacies are deeply rooted in post-colonial African countries, including the sociology of knowledge as most university leaders and teachers are likely educated in the former colonial country. The curriculum at both the private and public universities in Cabo Verde are, by and large, copy-paste curriculums imported from institutions in the former colonial power, Portugal. Based on my personal experience, university curriculum does not appear to have emerged with any strategic aim, let alone planned with careful thought given to institutional capacity or availability of trained teaching staff. New programs often appear as a result of random initiative by internal individuals, outside pressure groups, or foreign academics and institutions. Such international collaboration is welcome and needed in African universities. However, the result is both an unequal institutional relationship as well as curriculum programs that are both irrelevant and unsustainable. In Cabo Verde, this unplanned, patchwork approach has resulted in a curriculum weakly relevant to the country's needs but also hollow and narrow. At times too it has resulted in programs that are not simply irrelevant to the job market but better suited for a short-term, postsecondary vocational training rather than a four-year degree. When I arrived at the faculty, there were two existing four-year undergraduate programs. One was basically a business administration degree, even though much of its content centered on accounting and mathematics and law, and very little on business management and operations or other disciplines. The other field of study was an unusual and gangly concentration that straddled public relations and secretarial studies. Believing it was more appropriate as a vocational or short-term postsecondary program rather that a four-year university program, my efforts to close it were unsuccessful, however.

Cabo Verdean universities continue to offer programs in areas misaligned with the labor market or that are better suited for postsecondary, non-tertiary training. Data is lacking on percentage of registered (or graduated) students by discipline or program. Despite a rapidly changing economy, with the most dynamic growth and expansion in sectors like tourism, construction, banking and finance, health care, and telecommunications, Cabo Verdean universities continue to graduate students mainly in the humanities and social sciences. The last available data from the Ministry of Education shows that 40% of graduates in 2015 were in the social sciences and humanities (down from 47% the previous year), but only 15% in engineering and natural sciences and health sciences (ME 2015/2016, 30).[17] Crucially, even when universities do offer programs that are aligned with the market and relevant to development needs, the *quality* of the education and training is substandard. A common complaint from industry in Cabo Verde has been the lack of adequate preparation of university graduates.

A related malpractice has been to prioritize expansion in the number of admitted students into existing programs regardless of institutional capacity, physical, administrative or pedagogical. More glaring, new programs are launched, or existing ones expanded, without any kind of jobs market analysis, consultation with private sector, or policymakers. Since the overcrowded sector is competitive, programs of study arise haphazardly, often as a marketing campaign to attract the next batch of incoming students and without regard to whether a qualified teaching staff and other resources exist to support such programs. This issue was one of the major sources of clash between me, as head of a faculty, and the rectory that decided all such matters. At the start of every academic year I would receive top-down orders to admit an arbitrary number of additional students into existing programs, orders I resisted to no avail because we did not have sufficient teaching faculty or classrooms in our already inadequate, overcapacity building. The result was not just over-crowding, and overstretching the school's administrative capacity. Classes often had to be delayed or cancelled because adequate teaching staff could not be found. Programs of study are developed and sold to students without any assurance that they will learn and acquire the requisite knowledge and skills.

The claim that university education must be aligned with the country's development needs is often misinterpreted to mean that we should teach only the advanced sciences and technology areas and eliminate the arts and humanities. No such argument is made here, of course. Indeed, what we teach should be aligned with our realities. We must avoid the opposite error: producing only or too many individuals in areas more suitable for Silicon Valley, if we our economies do not have these sectors or cannot create sufficient jobs for people once they graduate. We should be nurturing poets, historians, and musicians. The argument here is simply about strategic priorities from the standpoint of development and challenges ahead. If Africa is projected to be home

to the world's next wave of mega cities and epicenter of the most rapid urbanization, or the next frontier of renewable energy expansion, are governments and universities prepared? This projected vast urbanization will engender profound changes, pressures and challenges, from infrastructure, to agriculture, water and other resources, health systems, ecology, schooling, and so on. Are we ready?

The curriculum in Cabo Verde's universities is narrow and specialized. It is not a liberal curriculum that exposes students to a diverse array of foundational knowledge, perspectives and soft skills regardless of their area of concentration. From start to finish of their university education, students concentrate in one particular field such as nursing, literature, public relations, economics, or mathematics, and take sequences of disciplines only in that field. Moreover, some of these fields are presumed to be terminal, as opposed to requiring graduate level study as in most parts of the world. A curriculum that transmits values, attitudes and transversal skills like creativity and an entrepreneurial mindset moves away from narrow silos. I am attempting to defend liberal education or the so-called "American model." Exposing students to various branches of knowledge and imparting transversal skills will be valuable to them once they leave university. Our existing narrow curriculum and limited exposure sets up students for failure in the labor market, given the high probability they will not find jobs in their field of study and need to be capable of switching into succeeding in different fields.

Quality Assurance Systems

Quality in higher education cannot be just an aspiration or an assertion. Quality requires structures and mechanisms in place to promote it, to measure it, and to monitor it, based on national goals and targets as well as international parameters. Cabo Verde, like the majority of African countries, lack a national quality assurance system for higher education or have only recently established one. The majority of countries do not have any mechanism to ensure standards, regulate and accredit institutions. The Association of African Universities reports that quality assurance bodies exist in 34 countries, but we lack any systemic data or analysis of their substantive work or results. Pan-African initiatives to harmonize higher education and ensure quality exist but with unclear results. The problem of quality assurance in Africa goes beyond the tertiary sector, as even in the primary and secondary levels very few countries have any rigorous national mechanism to ensure quality learning and teaching at any level. To my knowledge, no African country participates in any international student assessments or comparative benchmarking at any level of education.

As alluded to above, tertiary education in Cabo Verde during its first two decades of existence was unregulated and bereft of any quality assurance structures inside or outside the universities. Cabo Verde finally created a national regulatory framework in 2016

formally tasked with overseeing the tertiary education system – the Regulatory Agency for Higher Education (ARES), which started working only in 2019. The newly created agency is ostensibly an evaluation, accreditation, and inspection body whose mission is to ensure quality of the sector. On paper, it is supposedly an "independent" body, but its directors are all political appointees. Its direction and small administrative staff are not necessarily composed of individuals with expertise or experience in the subject matter. As an infant agency, not much can be expected. A robust quality assurance and regulatory body takes time and lots of resources to develop. It is also requires that the right people, trained professionals with expertise and experience in education evaluation, are put in place. Thus far, ARES activities have been limited to approving new courses, diploma recognition, and requiring minimum standards such as number of full-time teaching faculty. The new agency is a positive step forward. If the agency is staffed by professionals with the expertise and is endowed with true autonomy, it can induce quality over the long term as well as force rationalization of the sector. Given the political impossibility of closing or forcibly merging universities, proceeding by accrediting programs and requiring minimum standards such as full-time teaching faculty with doctorates, over time may weed out the less competitive and less serious programs and schools.

In this paper, quality assurance is conceived broadly and comprehensively, to encompass more than external regulation and accreditation of tertiary institutions. It involves an external (national) system of quality assurance and accreditation as well as an internal system at the level of individual institutions. A quality assurance system for tertiary education is – when all is said and done – a system of practices and mechanisms that ensure accountability at all levels and in all areas to guarantee the quality and impact of tertiary education. A robust quality assurance system involves measurement of performance in every possible area in the life of a university. It involves adopting clear, objective, quantifiable goals, standards, criteria, indicators, and data gathering at the level of the sector as well as the individual institutions. A rigorous quality assurance system is thus multi-layered and continuous.

An important observation must be emphasized. The external component of a national quality assurance system must be non-governmental. It is natural, and often useful, that a governmental regulatory body exists to regulate the higher education sector. The functions of such governmental body should be limited in scope, and should not include accreditation. In an ideal social and political setting, such a governmental body can be a positive, strategically positioned instrument to promote and ensure a high quality, impactful tertiary sector that is properly aligned with national development goals, industrial policy, strategic areas and market needs. Our record in Africa, however, reveals a fatal flaw in our tertiary education — overly politicized tertiary sector, open to political interference, partisan squabbles and favoritism, and manipulation by political leaders.

At the level of tertiary institutions, for example, it should entail periodic internal assessment, peer review, and external accreditation. Continual internal self-assessment at the level of individual institutions is vital. Based on its mission and strategic goals, universities must engage in multi-year self-assessment of whether they are providing programs, teaching, and learning characterized by quality, currency, and relevancy. This assessment should focus on broad areas, such as faculty qualification, programs of study, organizational capacity and supporting functions. The periodic, multi-year institutional self-evaluation is based on continuous, annual self-assessments by individual programs, academic departments, administrative support units, individual faculty, and students. At the heart of this continual self-assessment are students and their learning. It entails developing an on-going assurance of learning mechanism that continuously measures teaching effectiveness and student learning outcomes, incorporating among others: student evaluation of teaching in every course every semester; faculty peer teaching reviews; departmental assessment of learning outcomes of their courses and programs.

In countries like Cabo Verde, internal quality assurance systems and practices of self-audit do not exist. That is, the universities themselves do not have any internal quality assurance system. Beyond what transpires in the individual classrooms and the whims and judgment of individual teachers, universities do not have any idea whether students are learning and acquiring the requisite skills, knowledge and perspectives in the individual disciplines and degree programs. Notwithstanding the many flaws and problems in higher education in the United States, one of the sector's strongest point is the depth and scope of internal self-assessment that all institutions practice continually. This includes multiyear institutional quality assurance assessment, periodic evaluation of student learning outcomes by programs and courses, annual faculty peer review of teaching, and student evaluation of teaching effectiveness every semester. Importantly, in the advanced countries, recruitment, career progression and even salary increases are explicitly tied to performance in the areas of teaching, service, and scholarly output.

As noted above, a major flaw in Cabo Verde's tertiary sector is the absence of any quality assurance mechanism, particularly in the areas of teaching effectiveness and student learning. As for student learning, basic instruments, such as student assessment of teaching surveys, do not exist. More involved program evaluations and learning outcomes assessments do not exist. In my time at the public university, I experimented with introducing basic end-of-semester student evaluation of their learning and teaching, but I was unable to get buy-in from faculty or the university to institutionalize it as standard practice.

The problem of quality assurance is pervasive throughout the education system in this area of ensuring student learning outcomes and academic performance. A number

of widespread practices and regulations have the perverse effect of encouraging mediocrity and underachievement. First, as noted, there is no national university entrance exam, nor do any of the individual tertiary institutions require any kind of entrance requirement beyond ability to pay registration fees and monthly tuition. We should note here, in Cabo Verde the quality of secondary education is widely deemed to have lost quality. Thus, the quality problem at the university level is reproduced and magnified, as students are admitted who are ill-prepared or for whom some other kind of post-secondary training would have been of greater utility. This is moral failure on our part. Since university admissions (and retention) is based solely on ability to pay fees, it is an irresponsible system that sets up too many students to fail at the expense of the financial sacrifices of families of humble means. During my time, the public university had devised its own "access exams" for admissions (later dropped), a very basic test based on a scale of 0 to 20. We were admitting large numbers of students with test scores in single digits. I was forced to admit students regardless of their academic preparation or capacity for university study so long as I was able to fill the enrollment quota for new students stipulated by the rectory. The result is, as expected, a high rate of failure, abandonment, or inability to graduate in time. Aside from having to manage students struggling academically, often professors had to redo their classes to cover basic materials students should have learned secondary school.

If students are admitted to tertiary study without any criteria, once they are in the university it is virtually impossible for students to fail in Cabo Verde. Universities in Cabo Verde have regulations in place so as ***not*** to fail students. A practice is called ***recurso*** (remedy or recourse) at the secondary and tertiary levels that allows students to "pass" a subject even after failing it during the semester and even after failing the final exam. Students who have failing performance on exams and assignments during the semester are given a special final exam to try to recover the entire semester. Needless to say, we cannot take seriously that in one exam a student will be able to acquire a semester's worth of knowledge, skills and learning outcomes. If students fail this exam, they are allowed another ***recurso*** exam. The moral hazard created is to incentivize students not to apply themselves during the semester, knowing they can always have multiple chances to pass a single exam at the end. Such irresponsible practices harm both students and society. Students leave university unprepared for the job market and incapable of assuring their own social mobility.

Teaching Staff, Faculty Development and Research Support

A university is only as good as its people. As one former vice rector correctly observed while commenting on the inauguration of a brand new campus for the public university in 2021, it is not the hardware of a university that matters but its software.

A well-trained, permanent teaching faculty is indispensable to quality education and research. In all phases of its academic, administrative and governance functions – and not just the teaching staff – the university must have qualified, dedicated people whose productivity is both properly incentivized as well as measured.

As with the public university of Cabo Verde, universities are created, new degree programs are launched, and all focus obsesses with rapid expansion in number of students and programs without regard to whether or not qualified teaching staff exists. In Cabo Verde, the tertiary sector has a big deficit in the available pool of adequately qualified university teaching faculty, that is, individuals with doctoral degrees. There is ample availability of individuals with masters degrees, especially for part-time teaching positions. The public and private universities in Cabo Verde depend heavily on part time (adjunct) teaching staff, for whom teaching is driven by primarily by the need to supplement the income from their regular jobs. The harm is not just to quality teaching and research productivity. University governance also suffers where many issues and academic affairs are handled by committees and organs composed of full-time faculty. At the public university in Cabo Verde, the theoretically highest body of decision making, the University Council, for years could not function because the university did not have enough faculty with PhD to be members.

As in all African countries, in Cabo Verde there are numerous individual, highly dedicated professors who are effective in their teaching, devoted to mentoring their students, and productive in their research output. As a class, the teaching faculty in the Cabo Verdean universities need to be better trained and supported. Notably, full time professors are relatively well compensated compared to the national salary scale and per capita income levels. The problem lies in their qualification, teaching effectiveness, scholarly output, and progression. There has been a major push in the public university over the last decade to upgrade faculty qualifications. As noted previously, the public university is reporting over 30% of teaching staff with doctorates. The global African diaspora may be an untapped resource for talent. Perhaps with the partial exception of countries like Nigeria and Kenya, African countries like Cabo Verde have so far failed to devise effective strategies to attract this “brain gain” to build up university teaching and research. African countries do not have the deep pockets of China to replicate its successful “thousand talents” program to recruit and bring back Chinese scientists, entrepreneurs, professors and other professionals who were trained abroad. Yet we can be creative. And we can tap into this diaspora talent in many different ways and without requiring their return – as teachers, mentors, researchers – for our students and especially for our faculty.

Universities in Cabo Verde are not centers of knowledge production and scientific discovery, or repositories of applied research and novel applications that industry can license and commercialize. Research output is sparse by any international standard,

such as publications in peer-reviewed scientific journals, academic publishers, or patents. More critical from a development standpoint, there is no substantive, continual interaction and exchange between academic institutions and industry. To be sure, there is little if any support for faculty research, whether on the part of government or the universities themselves. Laboratories, equipment, technologies, and other resources are either inadequate, insufficient or non-existent. More still, scholarly output has not been a criterion in the hiring and promotion of faculty. There is no real consequence to low or no research output for individual faculty. Rigid labor laws – that guarantee automatic lifetime employment after a short, predetermined period, regardless of job performance or organizational needs – further undercut efforts to ensure quality and meritocracy.

In addition to the absence of resources to support research and faculty requalification, mechanisms of quality assurance do not exist to incentivize quality teaching, research productivity, and career advancement. Mechanisms to monitor, measure, and assess teaching performance and scholarly productivity do not exist. In all other parts of the world, these are critical not just to quality learning but also to practical measures such as merit-based compensation or career progression. Progression and compensation are not performance-based in the sense of being tied to measurable student learning outcomes and teaching effectiveness, research and scholarship productivity, or any other explicit, measurable performance. Such mechanisms and governance rules may even exist on paper, they do not exist in practice. No mechanisms of reporting or assessment exist at the level of heads of departments, heads of faculty or the rectory. As noted above, a critical function of a comprehensive quality assurance system is to monitor, assess, and promote effective teaching, using such performance assessments as the basis for decisions on compensation and promotions. In practice, in institutions like the public university, promotion of full-time teaching staff – when and if it happens for individual faculty since there is no standardized process – occurs on the basis of a calendar, ad hoc individual cases, favoritism or some other arbitrary decision. The result of such practices is predictable: more corrosive politicking on the one hand, as individuals seek their own advancement, and growing resentment and disillusionment on the part of other faculty who feel unjustly and unfairly treated.

University Governance and Organizational Model

Higher education systems in Africa have three debilitating flaws in the areas of governance and organization: excessive centralization, political interference, and the use of archaic, inapt methods of selecting university leadership. No amount of innovating and remaking our higher education systems will produce any tangible results if we do not fix these organizational problems. Until we develop a better way to run and manage our universities, we will continue to fall behind.

This essay cannot speak to the situation in all African countries. Nevertheless, many of the same flaws in Cabo Verde's university system is a common observation in other parts of Africa: excessive centralization, inefficient bureaucracy, political interference, weak or inconsistent internal processes for academic and administrative affairs. Crucially, a common but corrosive practice in African universities involves how we select university leadership – internal elections or political appointment and government direction, discussed below. Excessive centralization and politicization stifle progress, initiative, innovation, and the sense of common ownership essential to an organization. A basic first step for deep reform and reorganizing African universities must be to remake how we govern them, and how we identify and select the leadership. Without changing the current governance structures and practices, no true change is possible.

A major flaw in university management and organizational model in Cabo Verde is excessive centralization and weak administration. In both the public and private universities, everything seems to revolve around the person of the rector. Even if formal governing rules and collective decision-making bodies exist on paper, in practice it is a level of personalism and concentration of authority that overshadows all aspects of the university. Collective governance does not exist in practice. All academic and administrative decision making is thus concentrated in the figure and post of rector, who is supported by an administrator general as second in command. Importantly, there is neither the practice nor the tradition of faculty co-governance or effective input. The teaching faculty do not have any substantive role in university decision making. Formal structures and procedures may exist, but they either do not function because of the shortage of full-time or their deliberations are controlled by the rector. Formalism and ceremony are common, but do not constitute real shared governance.

The result is that rectors bestride their respective institutions as "magnificent" overlords, upon whom all decisions, no matter how trivial, rest. Importantly, all key jobs and career progression come to depend on the rector. All academic and administrative decisions, from routine to strategic, are concentrated in the figure of the rector and general administrator. As every issue no matter how trivial must be approved by the rector or administrator, the heads of administrative units are passive implementors, deprived of any independence or latitude for initiative and decision. Deans and other heads of academic departments and units likewise have no decision making authority over any aspects of the academic affairs or administrative operations of their units. Even simple and routine matters, such as purchasing office materials has to be authorized by the rectory, let alone substantive issues relating to curriculum, faculty hire and promotions, student admissions, adding or changing programs of study, or finding external partners in industry or foreign universities. Deans and other departmental heads are, in practice, glorified clerks and supervisors, deprived of any capacity or authority for strategic decision making and initiative.

The result of this over-centralized, authoritarian structure is as predictable as it is harmful. On the one hand, it prevents the bottom-up flow of realistic information and feedback essential for the already self-isolated, remote rectory to base its decisions, actions, and course corrections. Second and critically, this top-down structure deprives the many individuals and units of a university of initiative, creativity, and entrepreneurial ambition to engage in continual improvement, experimentation, and innovation. In such a centralized system upon which everyone's job depends, no teacher, administrator, or unit head is going to challenge or contradict the rectory. In the context of poor, developing country where alternative employment options are few, the incentives are for deans and other academic department heads to play it safe, to follow order, to focus on daily routine.

Over-centralization is stifling to innovation and initiative. It is also a source of organizational inefficiency. By centralization and usurping all decision and initiative, the rectory (primarily the rector and general administrator) becomes overwhelmed and unable to attend to any one decision or issue with any expediency or effectiveness. At the public university, since all matters big and small could only be decided by the rectory, both the academic and administrative life of the university become hostage to the backlog and bottleneck created as an understaffed central bureaucracy becomes overwhelmed. If the rector or general administrator happen to travel or fall ill, nothing beyond routine gets done.

I am here not making an argument for the opposite error – decentralization of a university into independent fiefdoms where everybody is doing as they please and without any kind of accountability. A university has to be guided by a single vision and a clear strategy, with clearly articulated and quantifiable goals, objectives and deliverables. Moreover, independent of what formal structures exist, much comes down to leadership style and temperament of the senior leaders of a university. Even if the formal structure is centralized, the senior leadership may still practice an open, collegial, collective, participatory leadership that gives lower tiers and leaders initiative and authority while holding them accountable. All universities, including the top tier global universities, face this eternal delicate balance and debate regarding governance, between centralized decision-making power and authority in executive structures and the lower tiers and units, especially in the matters of academic affairs. No perfect model exists. Yet workable and sensible models do exist.

Excessive centralization undermines the efficiency and innovativeness of organizations. It is also corrosive, stultifying, and morally corrupting. In contexts such as Cabo Verde – where rules and mechanisms of decision making, human resources management, performance evaluation, standards and criteria for promotion are weak or non-transparent – the rector effectively becomes the all-powerful, unchecked overlord,

especially when it comes people's jobs and career. That is, excessive centralization combines with weak internal governance, non-existent systems of quality assurance, and the absence of effective rules governing job performance, promotions, bonuses, and faculty grants. In this context, all matters, especially those affecting people's livelihood, came down to dispatches from the rector. Everyone's job and career advancement, from the lowly administrative staff, to the teaching faculty, to senior officers of the university, come to depend on the person of the rector. Since promotions and progression procedures were non-existent in practice, and since the university lacked any form of quality assurance mechanisms that measure and assess performance, it was the rector who unilaterally determined who gets promoted, who gets scholarship support for upgrading, who gets leave with pay, who gets to be director of this or that unit, and so on. Naturally, in the absence of effective internal systems or transparent rules, determination on all such matters were arbitrary, sporadic, individualized.

Two perverse but prevalent behavior arise in such settings. First, as alluded to above, since jobs and career depend on the rector, everyone plays it safe. Personal initiative and creativity become risky ventures. Routine and keeping your head down become the best option. As in authoritarian political system, it is never a good idea to report failure and bad news, nor to contradict the autocrat or suggest a different way of doing things. The other perversion is internal politicking, jockeying and favoritism. Individuals and opportunists at all levels, start focusing on ways to curry favor and stand in the good graces of the rector.

The Disease of Political Interference in Higher Education in Africa

Aside from excessive centralization, the two other organizational deficits of higher education systems in African are political interference and the methods used to determine the senior leadership the institutions of higher education. In many instances, these two deficits coincide and reinforce.

Political interference in higher education institutions is damaging and corrosive. Excessive political interference and politicization have been major factors in the erosion and decadence of many universities in post-colonial Africa. Political control and interference in knowledge production, learning, free flow of information, and knowledge sharing are antithetical to national development. It is among the many other reasons nation's fail, as history and comparative experience show us (Acemoglu and Robinson 2001; Juma 2016). The autonomy of the university, public or private, is fundamental if it is to serve as an essential component in human capital formation and national development. To best serve society, the knowledge and training produced in the education system must be objective, nonpartisan, apolitical, independent. Since the teaching, learning, research, and free expression that occur in a university may not always coincide

with the currents and interests of the political sphere, the autonomy of academia must be protected from within and from without. Politicization obstructs knowledge production, sharing and dissemination. It obstructs innovation. Politicization is hostile to quality learning, teaching and research, as all such innovation and academic endeavor is filtered through the prism of politics and factionalism. Critical, independent thinking, scientific research, or knowledge discoveries are likely to be stifled if deemed harmful to existing power structures or seen as opposition. Governments and policymakers, of course, have a legitimate role to play in education, in terms of establishing education policy, creating national standards, setting strategic goals. Such authority is normal and necessary.

Political interference comes in many forms and from many directions. The most obvious and direct is the common practice in many parts of Africa of direct control of universities by the government. This practice applies primarily to the public universities. Political leaders and politicians should not be running universities, public or private, nor should they have a direct role appointing or selecting university leadership. In Cabo Verde, the public university is nominally autonomous and self-governing. However, in 2011, a disturbing legislation was passed granting the government the authority to appoint the university rector. In many parts of Africa, the rectors and senior leadership of universities are directly appointed by government or vested in government officials.

If a society is fortunate, it may be endowed with effective governance institutions and have wise leaders who appoint the most qualified professionals to run universities and allow them to function independently. Wise leaders are not always at the helm. Worse still, the university becomes hostage to changing political fortunes and partisan battles, along with the other well-known ills associated with this level of politicization. Short of these overt, direct political control and politicization of the university, there are numerous other channels and methods by which external political forces attempt to control, manipulate, and influence the university. Everywhere in Africa, universities both public and private, depend on government subsidies and budget support. Such financial dependency of the universities on governments gives political leaders and partisan forces leverage and bargaining power that can be exploited. Moreover, political interference and control is not always pushed by politicians and political leaders. It is sometimes invited or welcomed by university officials, especially in situations of university power struggles, elections, individual opportunism and aggrandizement, or other motives.

Finally, aside from government appointment, another widespread practice in Africa is the use of internal “elections” to select university leadership, namely the rector. After the initial phase of government appointment, the public university in Cabo Verde has adopted internal elections to determine the rector. Based on a weighted distribution

of votes, the rector is elected every four years by students, administrative staff, and full time teaching faculty. The private, mainly Portuguese-owned private universities in Cabo Verde typically rely on direct appointment by the governing council or open search and competitive hiring. In the public system, the four-year election cycle permits incumbents to run for a second term, with a two-term maximum. Needless to say, a term of four years is not a sufficient timeframe for a university leadership to engage is deep, thorough, sustained reforms and reorganization. As in electoral politics, with such a short timeframe, the winning candidate is immediately concerned with securing reelection for a second term rather than engaging in necessary, courageous but potentially painful structural changes required to introduce structures and mechanisms that will ensure quality.

Elections are the worst possible method for determining university leadership. The problem is not simply that elections become a popularity contest of competitive pandering to various constituencies or that elections are unlikely to result in the most qualified individual for the job. Elections naturally devolve into two pernicious consequences: a cancerous politicization and factionalism inside the institution, on the one hand, and external politicization and interference, on the other hand. In the abstract, we may think of elections as an effective method to select the best fit, most qualified individuals or resulting in the best ideas and strategy winning. It never happens.

In practice, internal elections in an university setting devolve into popularity contests or competing factions pandering for votes. Far from resulting in productive debates and good ideas winning, elections result in hurt feelings, animosity, and fear. Elections are especially corrosive, as noted, in contexts like that in Cabo Verde of weak governance structures, fragile or non-existent rules or mechanisms of audit and control, and weak mechanisms of performance evaluation. Since the post of rector is all-powerful and everyone's jobs and career opportunity come to depend on the rector, the position becomes a big prize of intense competition among factions. Winning or losing is consequential. In particular, losing and backing the losing side come at a high cost. Incumbents or favorites of departing incumbents fight hard to maintain their position and vested interests, while opponents battle intensely for their turn to claim the authority and resources. Such elections put teaching and administrative staff, in particular, in a tenuous position, as siding with the wrong side can have big consequences for their jobs and career. Personalism, favoritism and clientelism become rampant – in an institution that ought to be based on the principles of merit, impartiality, and results-based management.

As alluded to above, elections reinforce the pattern of routine, thus stifling innovation. Since candidates are vying for votes and currying favor with numerous constituencies, no candidate has any incentive to propose radical departures and deep structural changes in governance, administration, curriculum, human resources management,

quality assurance, or any substantive area. Such structural changes will invariably impact, negatively, the jobs and opportunities of many, and likely threaten the entrenched positions and privileges of individuals and factions.

Another harmful result of internal elections relates to the observations above regarding political interference in academia. Inevitably in such internal elections, one faction or candidate will be seek external endorsements and support, especially from government leaders and political parties. In the 2022 elections in the public university in Cabo Verde, some candidates engaged in this behavior. Even if done with good intentions, allowing or inviting politics and partisanship into academia, whether through the front or the back door, is dangerous. All forms of dalliance with politicians and partisan politics is harmful to the academy. At best, it taints the reputation and scientific credibility of the academy and, at worst, erodes its institutional autonomy.

For the public university of Cabo Verde, the serious reforms it needs in order to play its proper role as an agent of national development are impossible with its current governance structure. In addition to finding a workable equilibrium between excessive centralization and decentralization, it must adopt a professional, merit-based recruitment and selection mechanism to ensure that the right people and the most qualified individuals are in place from top to bottom.

A Brief Note on the Role of the African Diaspora

Guided by a personal belief that professionals like me in the African Diaspora have a moral obligation to make a contribution to the continent's progress, I was able to get a sabbatical and year's leave from my home institution to go play a part in the newly established public university in Cabo Verde. I was not able to accomplish my goals, but the experience was valuable. My independence, initiative and independent thinking at the school did not sit well with the rectory. We clashed daily. Lines of communication frayed and eventually ruptured. We could not find a workable relationship. The principal victims were my students and the school. As such, the blame and responsibility were squarely on my shoulders. In the end, I could only blame myself. I needed to be wiser, more diplomatic in my approach. I was, after all, an outsider, facing a rectory leadership, bureaucracy, and even teaching staff deeply vested in the existing structures and ways of doing things since the university opened in 2006.

My experience should not be generalized. However, my experience as a returning migrant may hint at the possibilities and limitations of professionals in the African diaspora to make meaningful contributions to socioeconomic development in our homeland. From Cabo Verde, to Kenya, to Nigeria and Ghana, returning migrants and professionals in the Diaspora are making significant contributions to socioeconomic development, especially as educators, researchers, entrepreneurs, and investors.

There were about five of us returning emigrant professionals from Cabo Verde's diaspora in the US and Europe who joined the senior leadership. We were animated by a noble desire to contribute our knowledge and experience. Not every individual in the African Diaspora will have the freedom and flexibility to return as we did, or have the extended time frame to do so. Our contributions do not always have to come in direct form.

Nevertheless, my experience revealed some of the limitations of the contributions we in the Diaspora are able to make, whether or not we do so remotely or directly. Three or four years later all five of us who had returned had either left or were forced out. The challenges are many. Having worked abroad, it is not easy adjusting to working in organizations, public or private, back in the homeland. The issue is not remuneration, as few if any Diaspora professional is motivated by financial payoffs. The challenge are issues like the poor efficiency of these organizations, internal disorganization, slow or labyrinth decision making, insufficient resources, and so on. I do not believe the issue is our arrogance or know-it-all attitude, even though we may be viewed in this light. Nevertheless, those of us who return need to listen more and be more open-minded. We must guard against the error of bringing pre-packaged ideas and foreign models that may be irrelevant or ill-suited. Another error I made was to set multiple, overly ambitious goals even before I arrived, rather than have an action plan of modest, easy to achieve goals that can be scaled or phased to bigger goals. Finally, I had not anticipated the degree to which others viewed my presence as a threat or a form of career competition. This element may be pronounced in both public and private organizations, but it is subtle and contaminates relations. Nonetheless, we in the Diaspora can be important agents of change. We can bring fresh ideas, a different mentality and approach, different ways of addressing and solving problems, in addition to the knowledge sharing and dissemination.

Notes

[1] My reflections in this paper are based on my personal experience as an academic as well as my experience as interim head of one of the faculties of the public university of Cabo Verde, the Universidade de Cabo Verde. The views expressed in this paper are exclusively my own, and in no manner should be construed as representing any institution or agency or their staff.

[2] World Bank, Human Development Index 2020.

[3] Author's calculations based on data from the World Bank, World Development Indicators (WDI), Data Bank, 2021.

[4] Data based on World Bank, Human Development Index 2020, and WIPO, Global Innovation Index 2020.

[5] World Economic Forum, Global Competitiveness Report 2019.

[6] World Bank, WDI, 2020.

[7] Based on the World Bank's country classification of high income based on Gross National Income (GNI) per capita above $12,695 current US Dollars. The only Sub-Saharan African country in the high income category is the Seychelles, which recently qualified with a per capita GNI of $12,720. Its tiny population and intensive high-end tourism dependency makes it an outlier.

[8] World Bank, Human Capital Index 2020.

[9] Data from the World Bank, WDI, 2021, based on 2017 figures.

[10] Mancur Olson, The Rise and Decline of Nations. New Haven: Yale University Press, 1982.

[11] Ministério da Educação, Anuário Estatístico do Ensino Superior 2015/2016. Praia: MinEd, Dezembro 2017.

[12] Agência Reguladora do Ensino Superior (ARES), Estatísticas Estudantes Ensino Superior 2021/2022. Praia: MinEd, Novembro 2021.

[13] INE, Estatísticas do Mercado de Trabalho 2020: Inquérito Multiobjectivo Contínuo 2020, Informação à Comunicação Social, 14 Maio 2021.

[14] Banco de Cabo Verde (BCV), Boletim de Estatísticas Novembro 2021, put the unemployment rate at 8% for individuals with post-secondary and tertiary education. We need disaggregated data.

[15] Ministério da Educação, Anuário Estatístico do Ensino Superior 2015/2016. Praia: MinEd, Dezembro 2017, 19. I have been unable to find more updated data.

[16] Author's private communication with administrative staff at the university.

[17] I have been unsuccessful in my efforts to acquire current data from government and the universities on graduation rates and enrollment in programs of study.

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