



Repositioning Tertiary Education for National Development

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TrustAfrica and the National Council of Higher Education (NCTE) in Accra, Ghana hosted a two-day national dialogue on the state of higher education in Ghana entitled, “Repositioning Tertiary Education for National Development.” Ghana’s continued rise from lower-middle income country to middle income country is hinged on the ability of tertiary institutions to continue to propel the nation forward by building a well-trained, innovative and skilled labor force. Since pre-independence Ghana’s educational policy has been a key strategy to accelerate national development. Despite the fact that each successive government has designed and implemented educational reforms and pursued policies with these goals in mind, the prevailing sentiment amongst stakeholders at the conference was that many of Ghana’s educational reforms have been piecemeal, rather than being effectively and consistently integrated into the national developmental agenda, creating fragmentation between the country’s developmental aspirations and what tertiary education is really delivering. The dialogue focused on the areas needed to continue moving the nation towards its goals. Key obstacles were identified, including access to education, governance of tertiary bodies, quality assurance, funding for effective operations, differentiation and diversification, and employability. The convening brought together many stakeholders in the sector, including the newly appointed Minister of Education, Vice Chancellors and leaders from other institutions of higher education, and leaders in business, civil society, think tanks and other government ministries. The aims were to share ideas on various thematic policy issues to make inputs into the White Paper on Higher Education and to provide further feedback on commissioned papers exploring sub-themes of the conference. This report will highlight the current context of the higher education landscape in Ghana and lay out the main policy implications for higher education to continue to catalyze the nation’s development.

Ghana’s Economic Development and the Tertiary Education Field

When one looks at the economic realities of Ghana the future looks bright, however a conundrum arises upon closer inspection. GDP growth for 2012 was forecasted at 7.1%, driven by Ghana’s oil revenue, the service sector, and the strong export performance of cocoa and gold. Since 2010 the World Bank has classified Ghana as a low middle-income country, with Ghana’s economy expected to be driven by

investments in the oil and gas sectors, public infrastructure and commercial agriculture. Conference participants kept touting this as progress and the whole emphasis of the conference was about how tertiary education could be positioned to move the country securely into the middle income country category. According to the African Development Bank, when you compare Ghana with others in this category, Ghana's development indicators compare poorly. This is the conundrum: on the positive side there is improved macroeconomic management and enduring political stability, but these gains have not significantly transformed the structure of Ghana's economy over time. The reality of the Ghanaian economy is that over the last 20 years while manufacturing has been declining as a share of GDP, the mining and construction sector have sustained the industrial sector. Given these realities, tertiary education needs to create the human capital to develop new economic sectors, such as manufacturing and agro-processing, in order to tackle unemployment and provide economic opportunities. The tertiary education sector also has a role to play in crafting the agenda of how the country's increasing oil revenue will be spent. These needs require coherent public policies between the tertiary field, business and government to develop an agenda relevant for Ghana's realities.

The Legacy and Current Context of Ghana's Tertiary Education-for-Development Policies

Hon Prof. Jane Naana Opoku-Agyemang, Minister of Education, spoke of the future of higher education and the development agenda in her opening remarks at the conference. She spoke of the need to overhaul higher education to reflect the needs of modern times. She stated that "higher education needs to be transformed in [Ghana] because we want the traditional colleges and universities to remain relevant and to lead in the knowledge production for national development." Before the conference delved into agenda-setting for the future, former Vice Chancellors of the University of Ghana, Professor Ivan Addae-Mensah and Professor Clifford Tagoe, provided the historical context of Ghana's educational system and its relationship to development. Professor Tagoe outlined some key phases in the country's history when accelerated delivery of education was the main impetus spurring rapid economic growth. Even before independence there was the Accelerated Development Plan for Education in 1951. The independence period from the 1960s to the 1980s saw the expansion of secondary and tertiary education; diversification of the curriculum to cover commercial, agricultural and science subjects; and a greater foray into linking science and agricultural development to policy. Following the return to democratic rule, the administration of former military ruler Rawlings established the Free Compulsory Universal Basic Education (FCUBE) policy in 1995. In 2000, it was decided that a portion of the Value Added Tax (VAT) proceeds would create the Ghana Education Trust Fund (GETFUND). This remains an important strategy to finance education in Ghana, along with the annual subvention provided by the government. The ensuing years under John Kufuor [2001-2008] and Atta Mills [2008-2012] saw Ghana implement Poverty Reduction Strategy I [2003-2005] and Poverty Reduction Strategy II [2006-2009]. These initiatives focused on instructional development and distance education, while the Ghana Shared Growth and Development Agenda (GSGDA) [2010-2013] targeted infrastructure and the promotion of linkages with industry. Vision 2020 [1995-2013] placed emphasis on science and technology with the aim of making education more relevant to the socio-economic realities and aspirations of the nation. Ghana's attempted pursuit of education-for-development policy objectives over its history has meant that both focus and results have been short-term, rather than advancing a long-term agenda to achieve real traction.

Against the backdrop of these developments and successive educational reforms, the demand for education has continued to rise exponentially. Unfortunately, rising demand has not been matched with the physical and academic infrastructures needed to further Ghana's development. According to Professor Addae-Mensah, in 1987 enrollment in public universities was 9,000 and in 2010 enrollment

was 115,346. He states that in most cases tertiary bodies have become preoccupied with training under graduate students, while postgraduate studies have remained relatively underdeveloped. Dr. Paul Effah's paper points to the fact that Ghana is performing poorly in producing many of the necessary innovators needed for development. In 2012, the UNESCO Institute for Statistics reported that in 2007 Ghana's ratio was 17 researchers per million citizens, compared to Kenya with 56, Uganda with 53 and South Africa with 393 researchers per million citizens. The Center for Higher Education Transformation (CHET), a South African not-for-profit, highlighted poor research performances across the continent in 2012. Ghana averaged only one article published every ten or more years, whereas one article per academic year was published at the University of Cape Town, which was highlighted as one of eight flagship research institutions in Africa.

In addition, although there has been a proliferation of private universities, the intake rate of these institutions has not reduced the pressure on public universities. In 1992, to address increasing demands for education, the Ghanaian government initiated an Act of Parliament attempting to establish polytechnics as public tertiary institutions. Despite this, the last 20 years polytechnics have not fulfilled the mandate to provide technical and technological programs in areas such as manufacturing, commerce, and science technology. Instead, the curriculum for polytechnics is dominated by humanities programs. This mission drift undermines the critical need for differentiation and diversification of tertiary education in Ghana. One of Ghana's educational aspirations is a 60:40 ratio split between science and humanities program enrollment. This has been identified by the NCTC as the optimal split for the country to work towards developmental goals. However, as Dr. Abdulai Salifu pointed out of his presentation, in the 2010/2011 academic year only around 39.7% of the 115,309 total students admitted to public universities in Ghana were admitted into the sciences (including medicine and related sciences). At the polytechnics only 32.5% of the total 43,113 students admitted were entering into science programs.

As Dr. Salifu states in his paper, "the economy thrives when science and technology support both the commercial and domestic interest of a country and its people." The reality of the Ghanaian situation is that it still needs to create the enabling environment to foster such strides. Students in the sciences are disproportionately gravitating to courses in medicine or pharmacy, as opposed to hard science courses such as physics, mathematics, zoology, botany, chemistry and engineering. Therefore, Ghana is not covering all the foundational bases needed to cultivate cutting edge scientific researchers. Other reasons for the low numbers of students in hard sciences include the higher costs of science-based education, and market demand for jobs in banking, commercial business and communications, which may be perceived as easier and more immediately lucrative.

Dr. Effah's paper notes that Ghana's expenditure on research and development as a percentage of GDP is only 0.23%, which is low compared to Singapore, for example, where that investment is 2.27%. Singapore's springboard for moving from a low to a middle income economy was based on its investment in research and innovation. According to Dr. Salifu, The Global Competitiveness Report, which assesses the performance of higher education and training institutions, technological readiness, and general innovation factors of countries around the world, ranked Ghana 114th in 2011/2012. South Africa ranked 50th, Rwanda 70th, the Gambia 99th, and Benin 104th. These indicators complete the picture: neither progress in national growth nor national competitiveness can be achieved without research, innovation and development.

Policy Implications around Promoting and Differentiating the Sciences

With regard to the promotion of sciences at the tertiary level, it was recommended that the NCTE be empowered to enforce national norms and guidelines that move the country to the 60:40 science/humanities ratio. There should be government policy to enact laws to promote the sciences and there should be incentives, scholarships and bursaries for science students. Absorption capacity of science and technology at the tertiary level, and in the workplace, should increase. Another key suggestion was that institutions should use a percentage of internally generated revenue to support the training of science and technology students.

With regard to a comparative example of differentiation and diversification of tertiary institutions, the rationale in South Africa was to first move away from an undifferentiated tertiary education system that resulted in all institutions trying to offer all courses, which was not cost effective. The second rationale in South Africa was to promote equity and national development. Dr. Effah's paper outlines why Ghana needs to implement a similar process of reviewing and consolidating tertiary institutions, so institutions can clarify their key competencies and roles for national development. This would involve a comprehensive effort to situate research at the center; specific universities would be classified as research institutions, comprehensive and specialized degree-awarding tertiary institutions, institutions for studies mandated to serve the developmental needs of key foci of the country, and the polytechnics. The idea is that the NCTC and the National accreditation Board (NAB) would develop some guidelines that may be used to determine university classifications.

Policy Implications around Research and Innovation

Comprehensive and sustained innovation policies should be at the heart of Ghana's national development strategies. Evidence suggests that to increase the level of research and development in Ghana there needs to be improved linkages between the many actors in the innovation sector. Universities, through research and innovation, are at the forefront of advancing and shaping the skills required for graduates in an increasingly globalized world wherein economic development is often derived from knowledge technologies, such as knowledge engineering and knowledge management. One strong policy recommendation is that the Ghanaian government needs to develop a set of national research priorities to align research initiatives with the economic and development priorities of the nation. Ghana's industry is heavily characterized by small to medium sized enterprises and building partnerships between research institutions, institutions of higher education, and small to medium enterprises is critical for economic growth. Some of the key recommendations include the establishment of effective national innovation systems that transfer technology, promote research, and expand technological infrastructure. Ghana needs to add value to local raw materials through science technology and innovation by enhancing research into the production of some of the country's agricultural staples to increase yield and reduce post-harvest losses. The next stages in food processing also need concentrated efforts for value addition, for agricultural and natural resources such as shea butter, cocoa, and minerals. There needs to be thoughtful development of indigenous knowledge and technology to increase promotion and utilization of science technology and innovation in traditional crafts and industry by intensifying research in traditional medicine and medicinal plant cultivation.

Government, in consultation with educators and businesses, needs to undertake a range of sustainable policy measures that have longevity. Whether through investment grants, loans, research and

development tax concessions, or programs to encourage investment by multinational firms, a research base needs to be established in Ghana that fosters real partnership between the public and private sector. There needs to be one unifying policy streamlining all sectors working towards integrated goals. Countries that successfully used research and innovation to drive economic development have understood this need and established effective national innovation systems that promoted collaboration between all sectors of society, irrespective of the political whims of who is in power. Long-term visioning was critical to developing places like China and Brazil; government and industry contributed significant money and resources to further the developmental needs of these countries.

Governance, Funding and Quality Assurance in Tertiary Education in Ghana

Funding for tertiary education has come historically from the Ghanaian government. Funding has become more diverse with an increasingly diversified tertiary field. According to the paper by Dr. Kingsley Adu and Dr. Frederick K. Essien, although tertiary education is also a major consumer of public resources (2% GDP in 2010), institutions are still falling short of responding to produce the necessary human capital to develop the country. The main issue in Ghana is that there is a funding gap and funding does not drive tertiary education towards national priorities and goals. The weak regulatory oversight of tertiary institutions also undermines the progress being made in developing national human capital. Some of the pre-existing problems include inadequate national policies on tertiary education and the lack of a national framework or human resources for coordination of regulatory bodies like the National Accreditation Board. With the proliferation of tertiary education institutions there has been divergence from some of the original core mandates of institutions, and in some cases introduction of academic programs without reference to the regulatory procedure. At times, there has been increased enrollment without taking into consideration issues like faculty or student competencies, or even the institution's capacity. Other issues include academic staff conducting little or no research or further skills development. In areas of institutional governance there is a lack of financial accountability, especially by authorities of public education. Yet, there can be a lack of full autonomy in the running of tertiary education institutions, resulting in stifled initiatives pertinent for innovation and adapting Ghanaian institutions to become more modern. Support by governments for places of higher education is diminishing on the continent and this trend is causing more universities to develop a marketing and corporate-style management approach. More autonomy to institutions of higher education means more responsibility for them to raise their own resources.

Policy Recommendations for Bridging the Funding Gap and Improving Governance in Tertiary Institutions

A concrete suggestion to mitigate the ever-increasing funding gap is that the Ghanaian government should contribute 65% of the funding requirement to be distributed to higher learning institutions using a formula-based model. Dr. Kingsley Adu and Dr. Frederick K. Essien provide several recommendations for bridging the gap. One is to increase the enrollment quota of local "fee-paying students" from 5% to 15% and charging students the direct teaching cost, which is 45% of the NCTE standard cost. Charging students the direct teaching cost will allow for more realistic educational cost projections; these costs are the direct teaching cost to run academic departments. To enrich Ghanaian institutions academically, culturally, and financially, institutions need to work to recruit foreign students who will pay full fees; such students should comprise 5% of the student population. The student Loan Trust Fund in Ghana should be resourced and properly managed. Decision-makers in places of higher education need to prioritize the internal generation of funds. They should pay attention to commercialization of support services. More specifically, there are income-generating opportunities in printing presses, book shops, renting residence halls in off peak times, canteens, guest facilities and hospitals. The aim should be

internally generated fees constituting 15% of the funding requirement. The Academic Facilities User Fee (AFUF) should be increased from 4% to 8% of the NCTE Standard Cost.

Graduate Preparedness for the Ghanaian Job Market

Ghana is experiencing some of the most robust economic growth rates in its history, but this has not resulted in increased employment. Ghana faces a situation where it is caught in a vicious cycle. In Dr. Tony Oteng-Gyasi's presentation he noted that the job market is only producing jobs each year at a 5% rate while the pool of job seekers is growing at almost 20% per year. Therefore, in actual numbers Ghana's 66,500 new graduates will compete for 40,000 new jobs, and each year the pool of previous graduates who were unable to find employment will make the limited job opportunities even more competitive. Currently, the largest employer is the Ghanaian government's bloated civil service sector. The private sector is only contributing about 4% of jobs to the economy each year. Dr. Oteng-Gyasi stated there is also a preference for graduates who have some overseas training and on-the-job training. Job seekers see this and also realize they will probably get exposed to cutting edge resources and equipment overseas. Ghanaians are spending money attempting to acquire overseas education, online educational opportunities from institutions abroad, and work experience, and this should be of great concern because it means that tertiary institutions are losing market share to overseas institutions. Dr. Oteng-Gyasi's research also points to the fact that it is, at times, Ghana's strong trade union and the legality and high cost associated with redundancies that reduce the risk that some employers are willing to take on recent graduates.

Policy Implications for Employment

The first recommendation is that Ghana pursue a national industrialization strategy that maximizes graduate employment and sets out a clear plan that the tertiary field can respond to. The Ghanaian economy and the policies that impact where the economy is going should impact higher education in Ghana. Policy makers cannot apply a one size fits all approach. Ghana's industrialization process needs to be localized within the context of its reality. Still largely an agricultural and extractive based economy, employment in this sector should be prioritized and the necessary human capital developed. Main areas of focus have to include agriculture, agro processing, and adding value to existing mineral resources. A specific example of how initiatives in the tertiary field can be linked to industry and employment lies in the opportunity to make adding value the objective of the mining industry. Dr. Oteng-Gyasi shared an example of how in Ghana students should be learning how to process bauxite into aluminum while investment promotion agencies should be going to search for companies to invest in this area. Countries like Namibia, Botswana and South Africa demonstrate how local jobs have been created and value added to the mining sector by the employment and training of local staff to specialize in mining sector jobs that go beyond just the extraction of raw materials. Tertiary bodies need to churn out scientists, engineers, and graduates with technical skills that will further develop industries such as construction, pharmaceuticals, garments, plastic, and electronic assembly lines. A key policy recommendation is that the NCTE work to facilitate close ties between industry and the tertiary realm of curriculum planning, development and review; training; and graduate job placement strategies. Practical training opportunities, courses in entrepreneurship, and strong career guidance have to be developed. Lastly, it was recommended that industry should set up an industrial training fund, generated by taxes imposed on industry, to fund studies related to critical skills analysis for employment; curriculum review; and strategic planning sessions, workshops and seminars linking industry and tertiary institutions.

Despite the acknowledgement that higher education is the vehicle to achieve economic development, Ghana's approach to integrating higher education into the national development agenda has been largely piecemeal, resulting in what Former Vice Chancellor Professor Clifford Tagoe calls, "the marginalization of tertiary education in the absence of a long-term human development strategy, [resulting] in a mismatch between educational outputs and the labor market, and the continuing struggle to make tertiary education relevant and responsive to the demands of the economy." Planning for industrialization requires discipline in planning, management and execution, and it is time for Ghana to ensure that the key recommendations from this policy dialogue be carried out. Looking on the horizon, Ghana's oil revenues are projected at several billion US dollars over the next two decades, and strategic decisions to build a labor force through higher education relevant to this reality will be crucial to positive economic transformation. The participants of this conference believe this will be achieved through improving governance of tertiary bodies, access to education, quality assurance, funding for effective operations, differentiation and diversification, and creating employment opportunities. Collaboration between industry, civil society and training institutions can resolve graduate employment only if an appropriate and cohesive national industrialization policy pushes all sectors to work towards this end.