



Introduction: Education and Human Capital, Current Debates, and Policy Imperatives

Muna B. Ndulo and N'Dri T. Assié-Lumumba

The genesis of this book is a symposium, organized by the Institute for African Development (IAD) and held at Cornell University from April 17–18, 2015. The symposium had as its theme: *Education and Development of Human Capital: Outcomes for Equality and Governance in Africa*. The symposium examined education and development of human capital in Africa, with emphasis on outcomes that promote equality and good governance. Presenters at the symposium sought to identify challenges facing the education sector in Africa, and those policies which support inclusive and sustainable development. Education, in every sense, is one of the fundamental factors of development and growth. No country can achieve sustainable economic development without substantial investment in human capital. It enriches peoples' understanding of themselves and the

M. B. Ndulo (✉)
Cornell Law School, Cornell University, Ithaca, NY, USA
e-mail: mbn5@cornell.edu

N'Dri T. Assié-Lumumba
Africana Studies and Research Center, Cornell University, Ithaca, NY, USA
e-mail: n.assie-lumumba@cornell.edu

world, and it improves the quality of their lives and leads to broad social benefits for individuals as well as society.

The title of the 2000 World Bank Report asked the question, *Can Africa Claim the 21st Century?* (World Bank 2000). Contrary to general perceptions in many African states that if only “we had oil,” we would be well on the road to development, the answer to this question is not predicated on the ownership of natural resources, rather on such factors as education and skills development. Owning natural resources has not yielded positive transformation of an African economy. Instead, many resource-rich countries have been negatively impacted by what is termed the “resource curse.” The critical factor in development of Africa is the development of education and skills. The perceived African demographic dividend is predicated on developing a competitive skilled work force. It is estimated that Africa will, in 2050, have more people of working age than in China. For the population dividend to be an effective asset for Africa, it will have to be well educated, healthy, and skilled. If the population is not educated and skilled, the demographic dividend could turn out to be a mirage and could very well become a huge disaster, resulting in increased poverty, hunger, and disease.

Whatever misgivings Africans might have had about European education introduced in the context of colonial rule, by the time African countries started to acquire their independence in the 1950s and 1960s, there was a consensus across the continent about the merit of human capital theory. It stipulated a positive and linear correlation between education and socioeconomic attainment of individuals, as well as between the aggregate levels of education of nations and broader societal/national development. In May 1961, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Economic Commission for Africa (UNECA) convened a historic conference of African states. The theme of the conference, which was held in Addis Ababa, Ethiopia, in May 1961, was “The Development of Education in Africa” (UNESCO and UNECA 1961). The overwhelming recognition of formal education at that conference as “the priority of all priorities” led to the commitment of African governments, policymakers, and education decision-makers to support the policy of achieving universal primary education by 1980, and to increasing transition rates between the primary and secondary levels, on the one hand, and between the secondary and higher education levels, on the other. The conference, therefore, had set the tone of education in independent Africa in line with the self-reliant and capacity development dreams of the pre-independence struggles.

Although substantial gains were made, in quantitative terms, during the post-independence era, the optimistic outlook of socioeconomic development of the 1960s and 1970s and the Addis Ababa goals were not reached when severe economic problems and the debt crisis of the 1980s was experienced by many African countries. To emerge from debt, the African countries adopted debt management policies, including debt forgiveness agreements with the Paris Club, which were conditioned on the implementation of Structural Adjustment Programs (SAP) designed by the International Monetary Fund (IMF) and the World Bank.

Of particular significance to education is that some of the debt management conditions required reduced funding for education and other social services, resulting in a need for the introduction of user fees for accessing educational and health services. Consequently, the structural adjustment era reversed many of the gains that were made in the immediate post-independence era. By that same token, the severe economic crisis, debt burden, and the introduction of user fees—even at the basic levels of education—led to stagnation and decline of enrollment at all levels of education (Lumumba-Kasongo and Kennett 1992; Assié-Lumumba and Lumumba-Kasongo 1996; Mkandawire and Soludo 1999).

Seeing that the era of structural adjustment reversed development and undermined the achievements of the post-independence era, there were renewed calls for the restoration of funding for education. These renewed calls were to restore education to its classical position, as the ultimate means for individual socioeconomic attainment and for national development. The calls were reinforced by the assessments about the immediate-, medium- and long-term consequences of the policies of the SAPs carried throughout Africa. Assessments revealed that the cost of curtailing funding to education was much higher than the actual cost of the supply of education. Subsequently, a series of meetings and global engagements, sponsored by several international institutions, including the World Bank, United Nations Development Program (UNDP), UNESCO, and the United Nations Children's Fund (UNICEF) took place. In particular, the 1990 International Congress on Educational Management and Development, held in Mexico City, and the World Education Forum of 2000, in Dakar, reaffirmed the role of education in development globally. This role was again reiterated in the Millennium Development Goals (MDGs). It is interesting that even the World Bank, which played a critical part in the previous policies, reversed its position, and in collaboration with UNESCO, commissioned the Task Force that produced a report in

2000: *Higher Education in Developing Countries: Peril or Promise* (Task Force on Higher Education and Society 2000). Thus, there is once more a buildup of consensus on the importance of education in the global development agenda (Hallak 1990; UNESCO 1998).

This may well explain why the African Development Bank (AfDB) in its 2014 *Africa Economic Outlook Report*, observed that, generally, Africa had made substantial progress in human development, as poverty levels had been falling, incomes are rising, and educational and health indicators were showing considerable improvement. The report also pointed out that the Human Development Index was showing a 1.5 percent annual growth. Indeed, the report indicated that 15 African countries were considered to have attained medium-to-very-high human development levels. Despite these data, it must be noted that there exists a significant number of countries in which income inequality is widening, and educational and health indicators are deteriorating. Thus, it is critical that there is more progress to be made with respect to gender inclusion and equality, access to education, health care, and environmental sustainability.

Therefore, there is no denying that since Africa lacks human capital and the requisite skills for rapid development, it needs to invest more in education and human capital development. This is the surest way to guarantee growth and enhance the living standards for its entire people. Moreso, investment in education and human capital is essential to ensuring the improvements necessary to make African countries competitive in the world economy, and thereby, create jobs for Africans. Thus, the role of education in reducing and eventually eradicating poverty, increasing economic competitiveness, and securing peace and stability cannot be over-emphasized. Inadequate education also has a negative impact on citizens' ability to participate in the country's governance. The World Bank defines good governance as "the manner in which power is exercised in the management of a country's economic and social resources for development, is an important factor in eradicating poverty, creating employment, promoting equality, and in the adoption of policies that foster inclusiveness, human rights, and improved livelihoods" (World Bank 1992, 1).

Pursuant to the foregoing, the symposium deliberated on how education, the development of skills and human capital—for both men and women—could be enhanced. It also focused on improving the outcomes of governance, as a necessary corollary to economic development and human capital advancement. The subthemes of the symposium explored the quality of education in Africa, the implications of the skills gap, the

relationship between economic conditions and violence; and the relationship between education and electoral behavior—among other topics. Inequality and ineffective policies are often blamed for the poor relationship between economic growth and human development, but data shows that links between economic growth, inequality, and human development are less robust than often assumed. A pattern of inclusive growth is essential to poverty reduction in sub-Saharan Africa. The design and implementation of policies and institutions conducive to inclusive growth require a better understanding of the relationships linking growth, inequality, and poverty. The symposium critically examined a variety of issues, such as identifying strategies to ensure that growth translated into improved livelihoods for people, transformative policies that empower the poor and landless, and educational policies that build the capacity of youth and other disadvantaged communities, thereby equipping them with a set of tools and skills to effectively partake in the economy. Going further, the symposium highlighted topics such as the eradication of poverty and acknowledged that a poverty eradication project involves not only the government, but civil society and the private sector as well.

The chapters in this volume challenge us to think critically about access to education, education curricula, education policies, and quality of education in Africa. As noted here, over the past 25 years, countries in Africa have made substantive progress in primary school access. Despite these gains, many young people who attend school are not acquiring the basic skills necessary to thrive in a diverse and changing labor market. The vast majority of public educational institutions are overcrowded due to limited facilities. African countries have been rapidly setting up universities without adequate infrastructure. They have been upgrading polytechnics and technical colleges to the detriment of educational standards. Because growth, development, and poverty reduction depend on the knowledge and skills that people acquire, and not the number of years that they sit in a classroom, Africa must seek to transform its education system from education for all to learning for all. Quality needs to be the focus of education investments, with learning as the true test of an effective education system. The human mind makes possible all development achievements, from health advances and agricultural innovations to efficient public administration and private sector growth.

In Chap. 2, Teboho Moja discusses a broad range of issues around education in Africa. She focuses on education capacity and skills as determinants in economic development and draws attention to the differences

between equity and equality, two interrelated and yet distinct concepts. She notes that inequality at both continental and national levels—in access to education and in the limited quality of education provided to learners—have been with us for several decades. She argues that the global disparities experienced among countries have a deep-rooted history. The disparities are linked to the historical loss of sovereignty and colonial rule and domination. This, in her view, is what fuels the current global inequality and widens the gaps in wealth and income today, both across and within national borders. Moja examines the question as to whether enough is being done to redress those past injustices, and suggests that the world needs to continue to explore ways of narrowing the gap in accessing educational opportunities. She argues that, beyond raising questions, discussing the issues, and making recommendations, more transformative models are needed to achieve equality and equity in education.

In Chap. 3, Eloundou-Enyegue, Giroux, and Tenikue examine the implications of education for economic inequality between countries. They argue that African countries have made significant progress in the educational sector, and the gap between countries in terms of educational performance is narrowing. The big question is whether this progress is translating into a narrowing of the economic gaps between countries. They hypothesize that countries should converge economically, if they begin to converge educationally. Education is endorsed as the best investment in development and the greatest equalizer, with benefits accruing to both the individual and to nations. They argue that this endorsement rests on incomplete evidence and critique the focus on national studies to demonstrate support for the positive impact of education on equality. Such studies fail to examine inequality between countries. In this chapter, they seek to explain trends in income inequality based on multiple components, which include quantity and quality of schooling. The authors argue that convergence in education does not mean convergence in economic performance. Economic convergence need not follow educational convergence. They address the question whether education is an economic equalizer, and if it is, which aspects (quantity vs. quality) are most influential. Despite the fact that they use limited data, the chapter brings forth some evidence-based insights that underscore the potential contributions of education to economic convergence of African countries.

Somasse, in Chap. 4, discusses free education, schooling outcomes, and wages in Benin. This is a country-specific study. It examines a nation that adopted a policy of free education for primary and preschool education in

all public schools. The Gini coefficient of both per capita consumption and school-age youth enrollment is high, with the cost of education considered the most prohibitive factor. The interface of gender and resources indicate the lowest enrollment for girls affected by poverty. Somasse investigates how differences in education outcomes drive income inequality and the relationship of education to growth, poverty reduction, and the attainment of key developmental goals. Overall, the free primary education policy and the improved supply of education has increased enrollment significantly and will increase the education attainment of the population. Gender and regional gaps in education have also improved substantially over time. Understanding the changes in the distribution of education outcomes is important in designing policies to achieve development goals. Findings indicate a relationship between higher education attainment and higher average wages, although the simulation also showed that the declining inequality of schooling, particularly at the primary level, led to insignificant change in wage inequality. The author suggests that the slow change or persistent inequality maybe attributable to low returns on primary education or national socio-political dynamics, such as the negotiating power of the labor unions and effect of collective bargaining, which may blur or even weaken the relationship between education and earnings. At the higher levels, however, reduction in unequal access to education seems to reduce earnings inequality.

In Chap. 5, Swanepoel, Stroebel, and Mentz take on the issue of education and agriculture and food production. The authors observe that Africa is the most food insecure continent, with relatively low levels of agricultural productivity, low rural incomes, high rates of malnutrition, and a significantly declining food trade balance and the fastest growing population. Ironically, Africa has sufficient land, water, and human resources to contribute significantly to the world's food balance sheet. Agriculture and the food sector present a significant opportunity for employment and wealth creation. To date, much of Africa's impressive recent economic growth has come from minerals and energy, with little impact on employment and improvement of living conditions of the rural majority. The authors argue that education can play a major role in driving agriculture-led economic and social transformation in Africa. Agricultural production can lead the positive synergy of "agriculture and agro food industries" as a vibrant economic sector for employment and subsequent economic advancement. To do this, African governments would need to increase their investment in agriculture by committing to the 10 percent budget

target set by the AU 2003 Maputo Declaration on Agriculture and Food Security and vigorously pursue the development of the necessary human resources for sector growth.

In Chap. 6, Beoku-Betts discusses the challenges and outcomes of women academic scientists and their role in development. She argues that, as science is an area of critical importance to development, that for women “to claim an equal role as partners in the global market of the 21st century,” they must develop their scientific knowledge and transform it into “wealth and social good.” African policymakers agree on the importance of science in development. However, the observable level of investment in science and technology, and research and development in Africa remains significantly low by global standards. Universities provide an important institutional medium for the effective development of science and technology through teaching and research. The training and employment of women constitutes an essential component of the resources. Discourse on science training often marginalizes the place of women in science and technology. Beoku-Betts argues that women bring positive understanding about the broader social purpose of science and its ability to transform the quality of life in society. Their perspectives on the role of indigenous scientific knowledge in their society and their involvement in civil society development initiatives that popularize science and increase awareness of science among the youth, especially girls, is an imperative to national development.

In Chap. 7, Shani discusses education and human capital development among geographically isolated regions and marginalized groups in Kenya. In the case of Kenya, the arid and semiarid lands and nomadic communities have their idiosyncrasies that defy designed plans. She discusses education among a poor rural Maasai community. The majority of the members of the community could not educate their children beyond elementary school. Yet, they live near modern tourist facilities, which are not available to them. These communities lag behind their counterparts, who live in much more affluent and better served communities. More significantly, gender inequality is rampant in educational attainment. The chapter looks at the education of girls from marginalized groups and offers recommendations for meeting their needs. There is a need for adaptation in order to respond to the constraints of the cultural, social, and geographical environments faced by teachers and learners. These situations require multifaceted, specific, and unique approaches, including such measures as mobile schools for nomadic groups, increasing security, and improving health facilities in order to improve the production of human capital and

ensure quality education for children from disadvantaged regions and communities.

In Chap. 8, Pillay critically examines education, inclusion, and development for orphans and vulnerable children. In doing this, he addresses an important dimension of education—the question of adopting policies that are inclusive of orphans and other vulnerable children. The author points out that there is a growing number of orphans because of the HIV/AIDS pandemic. These groups require services beyond the conventional and minimally equipped schools. The chapter argues that early education, inclusion, and development for orphans and vulnerable children is crucial for good governance. He points out that this is an important segment of the population in many African countries, largely because of the HIV/AIDS pandemic. Orphans and vulnerable children are at a greater risk of dropping out of school. This poses an economic and social threat to the development of African countries. Pillay argues that it is essential to integrate knowledge about education and care for orphans and vulnerable children in their early years of school in order to promote their optimal development. After noting that many African governments do not spend much money on early childhood education, the author seeks to show why they should invest in early childhood education. He argues that their inclusion is a *sine qua non* for broader socioeconomic development.

In Chap. 9, Riggan looks at Eritrea's 2003 educational policy in which the government mandated skills-centered education. She illustrates the gap between learning outcomes and assumed corresponding and appropriate curriculum and pedagogy. She uses the case of Eritrea to illustrate the disconnections between policymakers' visions of education for human capital development and the pragmatics of actually educating students in often underfunded and under-resourced African schools. She explores this case in order to argue for human capital programs that emerge from grassroots teachers' expertise and respond to the exigencies of local communities and local economies that support teachers, to ensure that students learn, despite challenging circumstances in the schools. As she notes, while a great deal of attention has been paid to resource scarcity in schools in Africa, little attention has been paid to the resiliency, creativity, and knowledge of the teachers who are running these schools. Riggan argues that it is critically important that educators and policymakers consider the significant experiences of the teachers to maximize their competencies and makes the case for using teacher expertise in these schools in order to better design and implement the kinds of reforms needed. Otherwise, we will

continue to see that reforms oriented toward developing human capital operate quite differently from the ways in which their architects intended.

In Chap. 10, Stroebel, Swanepoel, and Mentz examine the significance of doctoral education and training for development in Africa. In this chapter, the training of students at the highest level of formal education, doctoral studies, is viewed as crucial to the development of Africa. This is a classical human capital argument of linear and positive correlation between education and the socioeconomic advancement of both individuals, nation-states, and society. The authors point out that, in recent years, Africa's growth rates have risen. Its world trade has increased, secondary education enrollment has increased, and the middle class is growing. The other side of the story, however, is that Africa is home to 14 of the least competitive countries in the world and development rates are very uneven across countries. Approximately one-third of the world's poor, who live in extreme poverty, are found in this region. At the same time, Africa is faced with circumstances that are both a potential asset and a risk. The continent has a youthful workforce. Youthful population of this nature is associated with both the opportunity for rapid economic growth as well as with the risk of high levels of conflict and unrest. To avert this outcome, it will be imperative to create jobs at a faster rate than population growth. Africa's ability to establish itself as a competitive knowledge economy will depend on the continent's ability to transform its contribution to global scientific output. The PhD is a pinnacle qualification broadening the frontiers of knowledge, enabling job creation by equipping graduates to work in multiple contexts, and establishing a base for an innovative and entrepreneurial knowledge society.

Finally, King, in Chap. 11, analyzes the link between education and employment. She examines the link by taking Kenya as a case study. In sub-Saharan Africa, 43 percent of the population is under 15, and the absolute number of youth is growing faster than anywhere in the world. Some studies see this as a cause of concern. Yet, both academic and policy literature present an alternative view, framing the unprecedented numbers of youth today as a dichotomy—a disaster or a dividend, with the outcome depending on global, national, and local policies and programs. King offers a possible explanation between, on one hand, the tremendous faith and commitment to education and employment programs aimed at youth and peacebuilding, and on the other, disappointing results. She addresses this issue through a case study of the youth aspirations in Nairobi Kenya.

BIBLIOGRAPHY

- AfDB (African Development Bank). 2014. African Development Report 2014: Regional Integration for Inclusive Growth. In *Abidjan*. Côte d'Ivoire: African Development Bank.
- Assié-Lumumba, N'Dri, and Tukumbi Lumumba-Kasongo. 1996. *The Impact of Structural Adjustment Programs on Higher Education in Africa*. A Study of the CODESRIA Network on "An African Perspective on Structural Adjustment Programs." CODESRIA, Dakar, Senegal.
- Blaug, Mark. 1972. The Correlation between Education and Earnings: What Does It Signify? *Higher Education* 1 (1): 53–77.
- Boserup, Ester. 1970. *Women's Role in Economic Development*. London: Earthscan.
- Fägerlind, Ingemar. 1989. *Education and National Development: A Comparative Perspective*. New York: Pergamon Press.
- Hallak, Jacques. 1990. *Investing in the Future: Setting Educational Priorities in the Developing World*. Paris: UNESCO, International Institute for Educational Planning.
- Lumumba-Kasongo, Tukumbi, and David Kennett, eds. 1992. *Structural Adjustment and the Crisis in Africa: Economic and Political Perspectives*. Lewiston: Edwin Mellen Press.
- Mkandawire, Thandika, and Charles C. Soludo. 1999. *Our Continent, Our Future, African Perspectives on Structural Adjustment*, CODESRIA Dakar, Senegal. Trenton: Africa World Press; Ottawa: IDRC.
- Schultz, Theodore W. 1972. Human Capital: Policy Issues and Research Opportunities. In *Economic Research: Retrospect and Prospect. Volume 6: Human Resources*, 1–84. New York: Columbia University Press, for National Bureau of Economic Research.
- . 1977. Investment in Human Capital. In *Power and Ideology in Education*, ed. Jerome Jerome Karabel and A.H. Halsey, 313–324. New York: Oxford University Press.
- Task Force on Higher Education and Society. 2000. *Higher Education in Developing Countries: Peril and Promise*. Washington, DC: World Bank.
- UNESCO (United Nations Educational, Scientific and Cultural Organization). 1998. *Higher Education in Africa: Achievements, Challenges and Prospects*. Dakar: UNESCO Regional Office (BREDA).
- UNESCO (United Nations Educational, Scientific and Cultural Organization) and UNECA (United Nations Economic Commission for Africa). 1961. Conference of African States on the Development of Education in Africa, Addis Ababa, May 15–25, 1961. Final Report. UNECA, Addis Ababa.
- UNESCO/World Bank Task Force. 2000. *Higher Education in Developing Countries: Peril or Promise?* Washington, DC: World Bank.
- World Bank. 1992. *Governance and Development*. Washington, DC: World Bank.
- . 2000. *Can Africa Claim the 21st Century?* Washington, DC: World Bank.