NASULGC National Association of State Universities and Land-Grant Colleges

Africa-U.S. Higher Education Collaboration Initiative: Empowering African Higher Education for Africa's Transformation

A discussion paper for the Africa Region Post-Summit Workshop

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[*Working Paper*]

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THE CHALLENGE

With growing interdependence it is critical that nations have the institutional capacity to interact globally to solve problems and create opportunities for development, security, peace and justice. Broad-based development and transformation rests substantially on the development of human skills and the capacity to create and adapt knowledge and technology appropriate to the needs of individual nations and local situations.

Higher education institutions are key to this process of developing and nurturing the human skills and research capacity required for equitable and sustainable growth and transformation. From a continental perspective, nowhere is there a greater need to strengthen the institutions that cultivate human and research capacity than in Africa.

East Asia and India have shown that strong systems of higher education, along with good governance and investment in infrastructure, are critical to long-term economic growth. Higher education has significant economic and social benefits not just for the individual recipients of tertiary education but also for the societies in which those educated individuals live and work. With the emergence of the knowledge economy strong systems of higher education are now absolutely essential. "Participation in the knowledge economy requires a new set of human skills…. Without improved human capital, countries will inevitably fall behind and experience intellectual and economic marginalization and isolation."[2]

Not surprisingly, in Africa, demand for higher education is strong and rapidly increasing, not only because more and more people are achieving secondary level diplomas but also because the higher education eligible (18-23 year old) population cohort has grown tremendously in recent years. From 1999 to 2004, the number of students enrolled at the secondary level has more than doubled in a number of Sub-Saharan African countries – resulting in extraordinarily rapid increments in the number of students completing secondary education and applying for higher education. Countries that have seen the greatest increase between 1999 and 2004 include Tanzania, Kenya and Guinea with over 110% increase, Burkina Faso, Senegal, Uganda, Madagascar and Burundi with 56-96% increase, and Congo, Rwanda, Ghana, Cameroon, Namibia with 27 to 47% increase. Table 1 provides data on secondary enrollment figures for seventeen African countries from 1985 to 2005.[3] Gross enrollment in primary education has risen dramatically as well, from 63% in 1990 to 95% in 2006.[4]

Economic growth in many African countries has also contributed to a growing demand for post-secondary education as more of those who complete secondary school can now afford at least some level of higher education. In sub-Saharan Africa student enrollment in higher education has increased from 660,000 in 1985 to over 3.4 million (over four fold!) in 2005. The increase in some countries, such as Cameroon (from 21,000 to 99,000), Kenya (from 21,000 to 108,000), Ghana (from

[1] A discussion paper produced for the Africa Regional meeting of leaders of African and U.S. higher education institutions; May 1, 2008; Washington D.C.
[2] UNESCO/World Bank. 2000. Higher education in developing countries: Peril and Promise, p. 17.
[3] Global Education Digest, http://www.uis.unesco.org
[4] http://siteresources.worldbank.org/INTAFRREGTOPSEIA/Resources/SEIA_Synthesis_Report_feb_08.pdf

8,000 to 110,000), Nigeria (from 266,000 to 1. 3 million), and Ethiopia (27,000 to 191,000) has been significant.[5] Table 2 provides more detailed data for 23 African countries.

Despite rapid enrollment growth in the higher education sector, Africa's higher education gross enrollment ratio (GER) – participation of the 18-23 year age cohort – remains the lowest in the world around 5%, trailing South Asia (10%), East Asia (19%), and North Africa and Middle East (23%). In terms of gender, the female student gross enrollment ratio has remained around 2% between 1995 and 2004, whereas it has been 5% and above for men in that time. In 2004, of the 3.4 million total tertiary education student enrollment, the proportion of female tertiary education students was only 38%, and the proportion of female teaching staff just 4%. In math, science and engineering, female student enrollment is particularly low.

African higher education institutions face a number of challenges in trying to meet the demands of an ever growing student population, including:

a) Critical faculty shortages, resulting from a lack of capacity to produce large numbers of qualified faculty, an ageing faculty population, and the loss of faculty due to HIV/AIDS, as well as the inability to attract and retain qualified faculty and staff due to brain drain to other countries and the domestic private sector.[6]

b) Mismatches between programs of study and labor market requirements, resulting in part from a lack of connectedness to national public, private and civil society sectors, making graduates less relevant to national development and leading to high rates of youth under- and unemployment in many countries.

c) Inadequate (and increasingly stretched) teaching, learning and research infrastructures, facilities, and equipment, resulting from inadequate funding.

d) Poor capacity in research and innovation[7], particularly in high priority areas, such as agriculture and natural resources, health sciences, engineering and technology, limiting the ability of institutions to address problems of local, national, regional and global concern and also leaving African higher education institutions largely isolated from global knowledge networks.

e) Uneven or inequitable access to education, particularly in relation to gender, geographic distribution and ethnic diversity.

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[5] Global Education Digest (2003; 2004; 2006; 2007); UNESCO/World Bank (2000) Higher education in developing countries: Peril and Promise.

[6] Across Africa and across disciplines, on average, only 70% of the required faculty is at post; in some universities departments have only 30-40% of total faculty requirements (ANSTI, 2003). Some 43% of faculty at the University of Nairobi and 50% at the University of Ghana are over 50 years of age and nearing retirement (Tetty Wisdom, 2006). The International Organization for Migration, in 2003, noted that Africa lost a third of its professionals to the developed world between 1960 and 1987. An estimated 23,000 academics and 50,000 middle and senior management personnel leave the continent each year. More than 40,000 Africans with a Ph.D. now live outside the continent. About 10,000 Nigerian academics are employed in the United States alone. There reportedly are more Sierra Leonean doctors living in the Chicago area than in Sierra Leone and an estimated 600 Ghanaian doctors work in New York City (about 20 percent of the Ghanaian requirements). For every 100 professionals sent overseas for training between 1982 and 1997, 35 failed to return to the continent (ANSTI, 2003).

[7] Research skills are most commonly acquired during masters and doctoral training, but Sub-Saharan African universities have minimal graduate output. A study indicated that the percentage of staff with a Ph.D. in the sciences and engineering departments in the universities of Nairobi, Addis Ababa, Malawi, Lagos, Ahmado Belo, Kwame Nkrumah, Jomo Kenyatta, Dar es Salaam, Botswana, Ibadan and Cape Coast, was just about 50%, the majority being at the "lecturer" or "assistant lecturer" level (ANSTI, 2005), who often neglect research due mainly to substantial teaching workloads resulting from enormous undergraduate enrollment expansions. This, generally, indicates poor capacity to undertake research, provide quality education and leadership.

f) Challenges in governance, leadership and management and poor capacity in advocacy, marketing, fundraising.

g) Underlying many of these challenges is a lack of adequate financial resources for sub-Saharan Africa's institutions of higher education.

The severity of African higher education's financial austerity has much to do with the fact that over the last two decades external development assistance to higher education has declined significantly proportionately as donors have focused education funding overwhelmingly at the primary and secondary levels. This donor perspective has shaped most of the sub-Saharan national Poverty Reduction Strategy Papers that influence national budgetary allocations. Furthermore, it has been difficult for most African countries to commit significant public investment to higher education due to other immediate problems and crises requiring attention and funding and poor economic conditions overall. The Millennium Development Goals (MDG) and Education for All (EFA) targets have put further pressure to focus on primary and secondary education at the expense, to a large extent, of higher education.

The imbalance in investment must be addressed. Indeed, the quality of primary and secondary education in Africa suffers from the lack of capacity of African higher education institutions to produce high quality teachers, education leaders, supervisors and curriculum specialists. The impact of higher education extends well beyond this, however: broad-based development in Africa cannot happen without well-educated African leaders, a strong human resource base, and institutions that can produce the knowledge necessary to address critical local, national and regional problems.

A RESPONSE TO THE CHALLENGE

In July of 2007 the National Association of State Universities and Land-Grant Colleges (NASULGC) and the Partnership to Cut Hunger and Poverty in Africa, and the Forum for Agricultural Research in Africa (FARA) in partnership with Higher Education for Development (HED), and the American Distance Education Consortium (ADEC) came together to form an initiative to strengthen African higher education capacity in science end technology for development in partnership with U.S. institutions of higher education. From the beginning, a number of other partners have been involved in shaping what is now called the Africa-U.S. Higher Education Collaboration Initiative and support for the Initiative continues to grow.[8] During the short time the Initiative partners have been working together, significant progress has been made in moving towards a concrete plan of action.

The Initiative has received enthusiastic responses from African and U.S. leaders in higher education, development organizations and members of the African diplomatic corps. Recent consultations with

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[8] Initiative founding members (in bold) and partners include the Africa-America Institute (AAI), the American Council on Education (ACE), the American Association of Community Colleges (AACC), the American Association of State Colleges and Universities (AASCU), the American Distance Education Consortium (ADEC), the Association of American Universities (AAU), the Corporate Council on Africa (CCA), the **Forum for Agricultural Research in Africa (FARA)**, Higher Education for Development (HED), the National Association of Independent Colleges and Universities (NAICU), **the National Association of Land Grant Universities and Land-Grant Colleges (NASULGC)**, **the Partnership to Cut Hunger and Poverty in Africa**, the U.S. Department of Agriculture Cooperative State Research, Education and Extension Service (USDA CSREES), and a number of African embassies. Partnerships with key African organizations including the Association of African Universities (AAU), the New Partnership for Africa's Development (NEPAD), the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) and various regional economic communities (RECs) are also being developed. In addition, discussions are being held with the World Bank and private sector firms and foundations. The initiative is committed to being open and inclusive of all relevant stakeholders in the development of its vision and programs.

African university leaders have also shown a positive and promising reception of the Initiative's goals and vision.

At this stage, the Initiative has identified several broad goals and capacity building priorities based on initial research and stakeholder consultations with leaders in Africa and the United States. **The primary goals of the Africa-U.S. Higher Education Collaboration Initiative are to enhance and empower higher education institutions in Africa and the U.S. to contribute more effectively to African development and transformation and to increase the competency of U.S. higher education institutions in global affairs related to Africa.**

Ultimately the Initiative envisions:

- Higher education institutions in Africa with vibrant, diverse intellectual environments that advance Africa's human resource needs, increase the development of new knowledge and technology, provide opportunities for historically disadvantaged populations, and develop programs of public engagement that will become a driving force for Africa's transformation and economic, social and political development..
- U.S. higher education institutions knowledgeable about African affairs and deeply engaged in Africa, with strong relationships, involving both students and faculty, with African institutions of higher education.
- A well-funded program that provides competitively determined resources for mutually beneficial African-U.S. higher education collaboration within a time-frame consistent with successful institutional capacity development.
- An interactive web portal for African and U.S. institutions of higher education stakeholders to share information and learn from each other's experiences, discuss issues relevant to increasing the development capacity of their institutions, and collaborate on advocacy.

Progress has been made on defining a program framework, developing an advocacy strategy and establishing a more formal governance structure for the Initiative. The program framework is still in the formative stage at this point. We encourage constructive critical input from all relevant stakeholders to help define the final program framework to be implemented once resources are obtained.

PROGRAM FRAMEWORK

In order to address Africa's higher education challenges the Initiative proposes to develop a competitive grants program to fund a significant number of partnerships linking African and U.S. higher education institutions and their strategic partners. It also proposes to develop a web portal for African and U.S. institutions of higher education stakeholders to share information and learn from each other's experiences, discuss issues relevant to increasing the development capacity of their institutions, and collaborate on advocacy.

The Initiative would like to see a competitive grants program that awards higher education partnerships with substantial resources for *fundamental* institutional change and that allows for *long-term* collaboration. We believe that capacity building is a long-term process that depends on sustained relationships built on trust and mutual understanding. The Initiative has begun to map out the basic architecture for this grants program and has developed the following preliminary framework.

While the Initiative is concerned with comprehensive institutional development, in consultation with African university leaders, partners and stakeholders, the Initiative has identified six priority fields of study that it will focus its capacity development efforts on through the competitive grant program and the web portal. These are:

- agriculture, environment and natural resources
- engineering
- science and technology
- health
- education and teacher training
- business, management, and economics

Within the above focus fields of study, the Initiative has further identified seven provisional capacity building priorities (in order of importance, more or less, as reflected by African university leaders in our recent conversations):

- faculty development
- curriculum and teaching capacity development
- institutional leadership and management, marketing, advocacy and fundraising capacity development
- research, technology and problem solving capacity development
- financial diversification and resource mobilization capacity development,
- improvement of teaching and research facilities and equipment (not buildings), and
- development of linkages with private, public and NGO institutions globally, regionally and locally.

It is expected that partnering institutions from Africa and United States will develop a list of activities based on their priority challenges, objectives and context. Some examples of specific activities that could be funded include:

a) Short and long-term training of staff and mobilization of the African Diaspora (short and long term assignments in teaching and research in African institutions);
b) Exchange of faculty between African and U.S. institutions;
c) Strengthening graduate level (MSc and PhD) education and training capacity of African higher education institutions. Implementing post-doctoral research opportunities for African faculty who need research mentoring and access to information, material and equipment;
d) Development of joint or dual degree programs where African and U.S. students can study and do research at other institutions and receive a degree from either or both;
e) Leadership, management/administration and strategic planning training, coaching/mentoring and experience sharing);
f) Fundraising and alternative financing diversification capacity development;
g) Establishing and strengthening centers of excellence in sciences and technology;
h) Accreditation and quality enhancement and management capacity improvement (including benchmarking, strengthening national and institutional accreditation bodies, developing policymaking capacity);
i) Modernizing teaching and research facilities (library and laboratory development); networking/ connectedness (bandwidth) and ICT capacity development;

j) Enhancing distance education capacity to provide access to the growing opportunities in teaching, research and consultations;

k) Establishing relationships to public, private and civil society sector organizations globally, regionally and locally.

Please note these are only examples of what could be done to address the capacity building priorities of the Initiative. The value of the competitive grants program targeted at partnerships is that such a program allows creativity to emerge at the proposal level to solve unique issues of individual institutions. This approach also allows the freedom to develop partnerships appropriate for their needs. Sub-Saharan Africa is not a homogenous set of countries with similar education policies or institutions and development challenges; they all have differing needs and constraints. Contrary to a program of proscribed activities, a competitive grants approach allows the Initiative to define objectives and leave the creativity of the design of implementation up to the partnerships that form. The initiative will thus define the goals but not the solutions.

Regarding eligibility:

- Partnership proposals must include an accredited U.S. higher education institution and an accredited or recognized African higher education institution.
- Additional partners can include university networks or consortia, research institutions, NGOs, regional organizations, international, national and local government bodies, private sector firms, etc.

The Grant Process

The Initiative envisions the competitive grants program to award grants in two phases. In the first phase, African and U.S. partner institutions would submit short proposals for planning grant funding which would enable the institutions involved in the proposed partnership to develop comprehensive and well-thought out plans for collaboration over a longer period of time of approximately ten years. The Initiative believes planning grant funding is essential for the success of longer-term collaboration. This process will allow institutions to better understand each other's opportunities and challenges, properly assess needs on both sides (with particular attention to assessing how to impact development and the lives of the poor), develop feasible and appropriate plans for collaboration, and come to agreements about the management and monitoring and evaluation of the collaborative projects they develop. It will also allow the management entity for the grants program to interact with the applicants to determine their management style and capability prior to an award for a full project.

In the second phase, the best comprehensive partnership proposals developed in the first phase will be awarded a long-term grant through a review process discussed briefly below. The grant period for this second phase should be long enough to allow for fundamental institutional change – 10 to 15 years. The Initiative is committed to the belief that institutional development requires sustained commitment; significant capacity development cannot be achieved in a 2-3 year or even 5-year time frame. Most importantly, it will take time for institutions to develop the financing mechanisms they will need to ensure the advances they make will last beyond the life of the grant.

The Initiative also believes that in order to achieve fundamental institutional change, significant resources will be needed for each partnership. While different projects will warrant different levels of resources, the Initiative believes it is better to fund a smaller number of partnerships than to spread resources too thinly over a large number of awardees. Major institutional transformation will only

occur with focused and sustained efforts. Thus, the size of the awards for the second phase grant is expected to be between $1-3 million annually.

The mechanism for the evaluation of proposals and selection of awardees will be a rigorous review and site visit process involving a balance of African and U.S. higher education experts and leaders, including considerations for gender. To be most efficient and fair, an external evaluation team with no conflicts of interest will be formed to review the progress of the projects. Continuity in the team composition will be achieved as much as possible to obtain comparability between projects and foster a mean for analysis of characteristics of project success.

The major criteria proposed for consideration in the review and award of the Grant include two sets, one for the planning grants and another for the long-term grant. These criteria would be weighted to emphasize priorities and allow institutions flexibility in the crafting of their proposals.

a) Criteria for the planning grant proposal

- Demonstrated commitment by the leadership of each of the institutions involved in the partnership(s), and evidence of good governance and preparedness for change.
- Experience and expertise of the program/project director(s) and the principal coordinators, from both partners.
- Degree to which the proposal addresses the major goals of the Initiative.
- Degree to which the proposal promotes interchange, contact and collaboration between the institutions involved.
- Evidence of collaborative proposal development with strong African leadership in the identification of needs and challenges, and evidence that program implementation will be managed collaboratively throughout the course of the grant.
- Demonstrated commitment of national government of the host (African) country to the development of higher education and sustainability of partnerships.

b) Criteria for the long-term grant proposal

- All the criteria used for the Planning Grant above plus
- Degree to which the proposal specifically addresses the academic, institutional, technical and financial sustainability of the project's results.
- Quality of the program's proposed leadership and strength of the management plan. Experience and expertise of the program/project director(s) and the principal project managers of the institutions involved.
- Evidence of careful assessment of each higher education institutions' needs and challenges (and quality of a plan for more detailed assessments if necessary);
- Feasibility and appropriateness of the project objectives developed in relation to the (preliminary) assessment of needs and challenges.
- Coherence between the project objectives, activities, expected results, and required resources; clarity of the work plan;
- Existence and quality of a plan for monitoring, evaluation and reporting that meets requirements of the Initiative's monitoring and evaluation system.
- Inclusion of a diverse set of institutions in the collaboration (i.e., community colleges, smaller and larger institutions, research institutions, public, private and NGO sector, etc.)
- Evidence of consideration of policy-level challenges of the host (African) country institutions and quality of strategy to address policy-level challenges if appropriate.

- Quality of plan to leverage the grant resources to obtain additional and diversified funding.

A monitoring and evaluation system will also be established in order to assess performance and grant compliance. The Initiative adheres to the principles of selection and award based on competitiveness, openness and transparency, and review and selection by a group of experts and representative from both Africa and United States. The Initiative believes that site visits will be essential to the proper evaluation of partnership performance and to address any necessary changes to the initial proposed collaboration plan.

Web Portal

To support the competitive grants program, the Initiative also plans to develop an interactive web portal for African and U.S. institutions of higher education stakeholders to share information (reports, studies, data), learn from each other's experiences, discuss issues relevant to increasing the development capacity of their institutions, and collaborate on advocacy to raise awareness about the importance of higher education for development and increase the visibility of the work they are doing in this regard. This web portal will be open to all institutions of higher education in the United States and Africa. The web portal would also provide the platform for submission of grant applications and progress reports from awardees as well as provide information on the grants program application process, information on grant awardees and the details of their collaborative program of work.

ADVOCACY STRATEGY

The Initiative is engaging a broad and diverse set of groups to support the effort including, but not limited to the members of the Initiative advisory group, key members of the Congressional Black Caucus, U.S. and African education leaders, African Ambassadors, the African Diaspora, as well as NGO and private sector groups interested in developing higher education capacity in Africa. Over the next several months, the Initiative will be researching and cultivating relationships with U.S. foundations that might be interested in funding higher education capacity in Africa.

An invitation has been sent to the Bill & Melinda Gates Foundation to support the planning of the Initiative and to work with us to develop a funding stream that will enable long-term support for institutional development in African higher education institutions in the field of agriculture and agribusiness.

INITIATIVE GOVERNANCE

An Advisory Board for the Initiative is currently being formed that will consist of African and U.S. higher education leaders and leaders of key relevant organizations who are heavily engaged in African development and influential in Congressional matters of development assistance. This Board will be co-chaired by a president of a NASULGC member institution and an African university president/vice chancellor.

The Initiative is committed to remaining open and inclusive and is prepared to work collaboratively with other interested groups and institutions to fully develop our work. We believe this is a historic opportunity for African and U.S. higher education institutions, foundations and others in the international development community to make an impact on a critical issue facing the world – broad based development in Africa that will continue to build the foundation for prosperity, security and peace.

Table 1   Student enrollment in secondary education (excluding vocational and technical students) in Sub-Saharan Africa

Country	Secondary student enrollment[9]				
	1999/00	**2000/01**	**2001/02**	**2004**	**2005**[10]
South Africa	4,078,846	3,943,618	4,029,272	4,317,903	4,593,000
Ethiopia	1,187,054	1,486,806	1,695,955	5,061,872	5,185,000
Kenya	1,114,530	1,234,567	1,306,568	2,449,729	2,464,000
Ghana	1,042,521	1,017,312	1,092,289	1,377,907	1,409,000
Senegal	245,122	256,286	285,366	401,040	406,000
Zimbabwe	834,880	844,183	866,171	758,229	758,000
Tanzania	247,579	254,876	289,699	524,325	-
Madagascar	354,254	382,474	426,160	592,834	-
Mozambique	276,097	332,036	381,619	280,590	306,000
Burkina Faso	174,501	181,882	186,924	272,980	295,000
Rwanda	97,500	141,163	146,122	131,139	204,000
Guinea	196,651	232,567	271,089	415,711	423,000
Burundi	81,273	104,885	113,176	159,240	174,000
Mauritius	95,187	95,448	97,647	110,287	128,000
Congo, Rep.	150,938	176,857	164,503	191,857	235,000
Namibia	116,131	124,196	130,577	148,104	148,000
Botswana	148,106	152,105	151,847	158,558	170,000

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[9] Global Education Digest, http://www.uis.unesco.org
[10] http://siteresources.worldbank.org/INTAFRREGTOPSEIA/Resources/SEIA_Synthesis_Report_feb_08.pdf

Table 2   Student enrollment in higher education institutions in Sub-Saharan Africa between 1985 and 2005

Country	Tertiary student enrollment numbers[11]				
	1985	1995	1999	2004	2005
Nigeria	266,679	404,969	-	1,289,656	-
South Africa	-	617,897	632,911	717,793	735,073
Ethiopia	27,338	35,027	67,732	172,111	191,165
Kenya	21,756	67,371	89,016	108,407	-
Ghana	8,324	10,170	54,658	69,968	110,184
Cameroon	21,438	47,665	65,697	83,903	99,864
Uganda	10,103	30,266	55,767	88,360	-
Senegal	13,354	24,081	-	52,282	59,127
Zimbabwe	30,843	45,593	42,775	55,689	-
Tanzania	4,863	12,776	18,867	42,948	51,080
Madagascar	38,310	28,814	32,156	42,143	44,948
Mali	6,768	6,687	-	25,803	32,609
Mozambique	1,442	6,639	9,303	17,781	28,298
Burkina Faso	4,085	9,384	-	18,868	27,942
Rwanda	1,987	4,791	-	25,233	26,378
Guinea	8,801	7,722	-	17,218	23,788
Burundi	2,783	4,256	6,132	15,706	16,889
Mauritius	1,161	6,799	8,256	17,781	16,852
Angola	5,034	8,784	7,845	-	12,982
Congo, Rep.	10,684	13,806	15,629	-	12,456
Namibia	1,523	11,344	9,561	11,788	12,197
Botswana	1,938	7,920	6,332	13,221	10,950
Niger	2,863	5,867	-	8,774	10,799
Sub-Saharan Africa total	**660,360**	**1,750,684**	**-**	**3,300,418**	**3,406,063**

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[11] UNESCO/World Bank (2000) Higher education in developing countries: Peril and promise; Global Education Digest 2003; 2004; 2006 and 2007; http://www.uis.unesco.org