

RETHINKING AFRICAN PARTNERSHIPS for GLOBAL SOLUTIONS



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ACKNOWLEDGEMENTS This edited volume is published by Michigan State University's Alliance for African Partnership, and is the product of numerous discussions in 2016 and 2017 with colleagues in African universities, research institutes governments, private sector organizations and civil society, as well as with strategic development partner and MSU's Africanist faculty. Many of the views expressed here emerged from the original convening of the Alliance for African Partnership in May 2016, and in subsequent campus-based events involving MSU faculty from across the university. To all those people who are too numerous to name, the AAP management team expresses its sincere thanks. A special thanks to Steve Hanson, associate provost and dean of International Studies and Programs; Anne Ferguson, senior associate dean, International Studies and Programs; and to the Alliance for African Partnership's advisory board, including Aggrey Ambali, Titus Awokuse, Thelma Awor Candace Keller, Penina Mlama, Moses Osiru, Leonard Wantchekon and Paul Zeleza.

TABLE OF CONTENTS

Title and Contributors	1
Table of Contents	3
Chapter 1: Introduction	4
Part 1: Partnerships: Learning from the Past and Innovating for the Future	7
Chapter 2: International Partnerships for Global Solutions: A History and Literature Review	8
Chapter 3: A History of African Partnership at Michigan State University	11
Chapter 4: The 2016 Convening of the Alliance for African Partnership	16
Part 2: Building Bridges	19
Chapter 5: Endeavoring to Nurture Partnerships	20
Chapter 6: Partnerships in the Arts and Literature: Challenges and Opportunities for Building Bridges between Africa and the World	22
Part 3: Transforming Institutions	25
Chapter 7: Building Strong South-South Partnerships for University Transformation in Africa: Lessons from RUFORUM	26
Chapter 8: The Changing Landscape of Partnerships for the Transformation of African Agri-Food Systems	29
Part 4: Transforming Lives	33
Chapter 9: Partnership in Climate Change Adaptation	34
Chapter 10: African Youth: Building on Values, Counting on Partnerships	38
Chapter 11: Generating Income and Hope in Africa with Mushrooms	40
Chapter 12: Conclusion and Future Directions	44
References	46
Appendix	51
Appendix 1: Faculty Guidelines for Scholarly and Professional Cooperation between Colleagues in Africa and Michigan State University	52
Appendix 2: Best Practices for International Partnerships between Higher Education Institutions in Africa and Abroad	54

INTRODUCTION

Thomas S. Jayne and Jamie Monson

BACKGROUND

Since early in their post-independence histories, almost all African countries have addressed their most pressing developmental challenges through collaborations involving African governments, African universities, the private sector, civil society, donor/financial organizations, and international technical partners (universities, research institutes, program implementation organizations). These organizations interact within an ecosystem influenced by funding patterns, power relations, and the individual goals and objectives of the participants involved. Our premise is that prevailing development-oriented ecosystems are not optimal and that changes in the way that these partnerships are structured can lead to more sustainable and mutually beneficial forms of collaboration and more effective outcomes for society. The Alliance for African Partnership has invited a number of people who we regard as thought leaders on this topic to present their perspectives and reflections in this volume, stimulate discussion, solicit feedback, and collectively encourage more effective forms of partnerships.

THE ALLIANCE FOR AFRICAN PARTNERSHIP

Michigan State University, in consultation with 14 African development thinkers representing a range of African organizations and fields of study, initiated the Alliance for African Partnership at a convening held at MSU in May 2016. The purpose of the Alliance is to promote sustainable, effective, and equitable partnerships between African organizations, MSU and other international organizations to address mutually defined challenges facing Africa and the world. Six highly interrelated thematic issues have been identified: (i) the transformation of African agrifood systems; (ii) water, energy and the environment; (iii) youth empowerment; (iv) education; (v) culture; and (vi) health and nutrition, among others. Three pillars also emerged from the convening: (i) Building Bridges, (ii) Transforming Institutions, and (iii) Transforming Lives.

The Alliance is a work in progress. Its activities will surely evolve over time as we learn what works well and what doesn't, widen our network of collaborators, and become more sensitized to their

MISSION

Bring about positive change in Africa through meaningful, equitable partnerships.

GUIDING PRINCIPLES

Accountability
Equity
Inclusivity
Sustainability
Transparency

PRIORITY AREAS



Agri-food systems



Education



Youth Empowerment



Culture



Health & Nutrition



Water, Energy, & Environment

perspectives and experience. At the core of the Alliance is its vision that "partnership"—the process of defining and implementing the collaboration—is a crucial and under-appreciated determinant of the success of any project, perhaps much more so than the technical know-how of the parties involved or the amount of funding devoted to addressing the challenge. This is why the term "partnership" is featured in the initiative's title.

MOTIVATION

Africa will soon have more than 20 percent of the world's population but it contributes less than one percent of published research output. Policies and programs that respond to the region's unique challenges will require the context-specific knowledge and perspective that African researchers bring to the table. An effective partnership model will need to recognize the dramatic changes in the African landscape during the past few decades with respect to partnerships. Development models premised on 1980s conditions and assumptions do not fit 2017 realities. There is now more awareness and recognition of local knowledge. Many more Africans are highly trained and in a position to

operate effectively given their superior knowledge of local culture and connections with centers of local and global power. They're capable of influencing government investments and mobilizing community engagement. An effective strategy toward improving the ecosystem of partnerships must directly engage more African professionals than in the past. Collaborations based on the idea that one organization is the capacity builder and the others are recipients legitimize an unequal balance of power that is increasingly inappropriate for today's realities. Our premise is that partnerships are more likely to be effective if planned together from the inception as equals, establishing a sense of co-ownership, recognizing what each partner has to contribute. Yes, there may be differences in the strengths of the parties involved and resources that each can contribute, but it is these relative strengths and weaknesses that provide the basis for comparative advantages in partnership arrangements. None of that need prevent partnerships from being mutually developed (e.g., objectives, terms of reference, budgets, research publications, development of work plans) and implemented together from the beginning.

OUR APPROACH

Building Bridges



Bringing people and organizations together to work toward common goals.

Transforming Institutions



Guiding institutions toward sustainable partnerships, enhanced resources, and increased capacity.

Transforming Lives



Turning research into real-world impact that improves African lives and livelihoods.

Our motivation is to test these premises through the promotion of a new set of partnership activities in Africa and/or involving African and international collaborators, obtain data on the effectiveness of the approach, guide wider practice in the region regarding how partnerships are implemented, and ultimately to promote a more effective ecosystem for addressing the region's challenges.

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THE HOW

The land-grant university system in the United States provides a potentially appropriate (and certainly not exclusive) model for today's Africa. "Land-grant" universities were initiated in 1862 to address in practical ways the major challenges being faced by societies. At that time, given that over half of the United States population was engaged in farming or food value chains, land-grant universities focused on helping farmers, providing extension services, undertaking research to generate new varieties and more productive farming practices, supporting science and engineering with applied uses, as well as the more traditional humanities and liberal arts.

The practical extension of land-grant university concepts to Africa is obvious and aligns directly with ideas like the "developmental university" model that guided many African universities in their early development. The majority of Africa's population are engaged in farming and rely on food systems. It is widely understood that the transformation of agrifood systems in Africa will be required to achieve widely shared improvements in living standards. But the interrelated nature of food, water, environmental, health, demographic change, educational and social

challenges is increasingly obvious. Land-grant missions also recognize the interdisciplinary nature of the challenges presented. As stated by Thomas Friedman (2008), "how we address the interwoven global trends of climate change, globalization, and population growth will determine a lot about the quality of life on Earth in the twenty-first century." We have a better understanding today how an interdisciplinary and broadly focused approach is often more likely to provide a more effective longrun approach to properly understanding these broader systems and effectively responding to these challenges.

As an international and now "world-grant" institution of higher learning, Michigan State University is asking itself how international public universities can align themselves to effectively face the demands of an increasingly globalized society. "These questions have gained increased urgency in the twenty-first century—for all universities but, in particular, for the nation's land-grant universities...Integrating the attributes and strengths of all segments of society for the sustainable prosperity and well-being of peoples and nations throughout the world is a moral imperative we are called upon to share and lead" (Simon, 2009).

Effective partnerships are certainly going to be at the heart of effective responses to global and local challenges. And in Africa, in particular, more effective modes of partnership will be crucial. The contributions contained in this volume are intended to provide grist for discussion on these important issues.

More about the mission, guiding principles and initial activities of the AAP can be found at:

aap.isp.msu.edu

PARTNERSHIPS:

Learning from the Past and Innovating for the Future

In order to lay a foundation for innovations in future partnerships, it is critical to understand where we are now, how we got there, and trends moving forward. The term "partnership" is used broadly and frequently in many contexts, yet it is not often clearly defined or its meaning is sometimes taken for granted. While acknowledging that many institutions, including MSU, have been working on issues of equitable partnership for a long time, the AAP wishes to build on the current understanding to continue to innovate partnerships for the future. Our goal is to better understand the evolution of north-south partnerships over time as well as how those working in this space define the elements of "true partnership" in order to support equitable, sustainable, and Africa-led partnerships with the potential to make a positive global impact.

INTERNATIONAL PARTNERSHIPS FOR GLOBAL SOLUTIONS:

A History and Literature Review

Amy Jamison

The term "partnership" has become pervasive in describing desired relationships among institutions across national and sectoral boundaries who seek to address global challenges. In the worlds of international development, economic growth, international research, and education, one cannot turn a corner without encountering references to "partnerships." Public-private partnerships, international partnerships, North-South, or South-South partnerships are common phrases in policies, government position papers, strategy documents, conference presentations, reports from donor agencies, and in development literature more broadly.

Institutions and individuals are increasingly realizing that they must reach out across boundaries to address global challenges. No one can go it alone because the needs are too complex. They are also realizing that old paradigms focused on uneven power dynamics and the privileging of donor agendas have not met their intended goals of global development. In fact, they have hampered them. While some organizations and individuals have long supported equitable and ethical relationships, the stage is now set for a widespread shift to "truly equitable partnership" as the main model for international and cross-sectoral engagement. This section will outline how ideas of foreign aid and development have evolved over time to arrive at current new directions of engagement and partnerships. It will also lay out the core characteristics that are common across the different partnership definitions produced by various agencies and scholars. Finally, it will discuss what work remains to realize these partnerships ideals and how the AAP can support this momentum towards true, equitable, Africa-led partnerships that address global challenges.

THE EVOLUTION OF NORTH-SOUTH ENGAGEMENT

In the late 1940s and early 1950s the foreign aid sector emerged in the global North to assist "underdeveloped" countries in "promoting social progress and better standards of life" (United Nations 1945, quoted in Koch & Weingart, 2016). In

this post-World War II era, organizations like the Rockefeller Foundation, the Ford Foundation, and the Carnegie Foundation took a strong interest in engaging with Africa (Parmar, 2012). Formed in 1945, the United Nations played a significant role in promoting northern engagement in the global South including Africa. The common discourse of the time was dominated by dichotomies between the North and the South, developed and underdeveloped countries, those who had technical knowledge and those who needed it, givers and receivers of aid (Binka, 2005). Technical assistance or knowledge transfer, coupled with large infrastructure projects, became the dominant model of providing aid to African countries (Koch & Weingart, 2016).

Experts from the North were sent to consult on African development. A small number of African scholars traveled to the North to study at North American and European universities, presuming that they would take the knowledge they learned there back to their home countries. The technical assistance model had a stated goal to build capacity in African governments and research institutions, but tended to reinforce the idea of a one-way flow of knowledge and expertise, from the North to the South. In reality this meant a continued dominance of external organizations and experts in determining the direction of project activities and over-reliance on external expertise, with little impact on building capacity in African institutions. Binka (2005) aptly describes this dynamic as a form of "scientific colonialism."

This prevailing unidirectional model of foreign aid and technical assistance, however, did not go without resistance. Debates across the continent questioned not only the inflow of international experts and expertise, but also the relevance of their knowledge to African contexts, discrimination against African researchers, and the overall power dynamics of the technical assistance aid model. For example, at the 1962 UNESCO-sponsored *Conference on the Development of Higher Education in Africa* held in Tananarive, Madagascar, African leaders confirmed that foreign aid should first and foremost be at the

request of a given country or institution, not imposed, and that needs should be dictated by the African institution so as to "guarantee against establishing rigid foreign patterns in African universities and other institutions of higher education" (UNESCO, 1962). They also affirmed that "international cooperation is a two-way street; it is beneficial to all parties working together on the same project. Hence, cooperative projects should, where appropriate, conform to the principle of mutuality." This conference was followed in 1972 by a workshop entitled *Creating the African* University held in Accra, Ghana which focused on infusing national universities with "African identity." It questioned the existing extractive model of research exchange in which European or North American researchers utilized African researchers as data collectors without involving them in the final analysis or including them in subsequent publications (Yesufu, 1973).

Throughout the early 1970s, more criticism of the technical assistance model emerged. For example, at a 1972 OECD Conference of Directors of Research and Training Institutes, both Northern and Southernbased attendees noted an increase in "new forms" of research cooperation based on "interdisciplinary, mutually beneficial partnerships" led by Southern researchers and institutions (Bradley, 2017; 39). However, in the 1980s, international financial agencies like the IMF and the World Bank imposed neoliberal policy reforms, otherwise known as structural adjustment programs, which formally consolidated a hierarchical model of "donorship" (Koch & Weingart, 2016). In this model, donors committed themselves to relieve African governments' external debt in exchange for major representation in the power structures of public programs and policies (Faul, 2016).

The 1990s saw a renewed and reinvigorated questioning of the hierarchies established under structural adjustment. Neoliberal policy reforms had failed to deliver on promised economic and social benefits to aid recipient countries. Critics' voices grew stronger both in the academic and development sectors of the South and the North in declaring that top-down, Northern-led technical assistance was a failing model. As, Koch & Weingart (2016) argue, "the idea that the North could solve the problems of the South by exporting its expertise and technology seemed increasingly obsolete" (p. 10). In the late 1990s, the World Bank began to shift its course to a focus on "knowledge societies" and "knowledge for development." In a 1998 report of the same name, the World Bank contends that "local conditions matter for the success of programs, that people on the ground have the most knowledge of local conditions, and that the challenge of knowledge for development is to combine local knowledge with the wealth of experience from around the world" (World Bank, 1999; 14).

Hydén (2016) refers to this as the second wave of donor support for research and education (with the first being immediately post-independence). This era is characterized by a recognition that "knowledge equals power" and has inherent economic benefits to societies (p. 5). It represents a shift in rhetoric to the language of "partnership," equity, and transparency to support capacity in local African institutions to address global challenges.

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This language of partnership and strengthening local capacity has continued to gain traction. For example, in a report for the Farm Journal Foundation, Jayne et al. (2017) argue for a new approach to U.S. engagement in Africa's agri-food sector that moves beyond the outdated technical assistance/ knowledge transfer model to support local organizations to carry out research and analysis with contributions from international organizations or researchers when necessary. This signals a move to more equitable relationships that acknowledge the strengths of both partners and a two-way knowledge exchange, albeit led by local African priorities. Binka (2005) also notes this shift in tone and language in scientific collaboration more generally. He points to the willingness of partners "to transform such dubious North-South 'collaborations'" into "true partnerships." However, he cautions that many of these shifts have been led by Northern partners rather than those in the South, but is optimistic about future directions which signal "a light at the end of the tunnel" (p. 208).

Several other authors confirm the trend toward the rhetoric of increasing partnership (Koch & Weingart, 2016; Bradley, 2016; Halvorsen & Nossum, 2016; Andriansen et al., 2015), but most caution that while the rhetoric has changed, actual practice may still have many of the elements of the old paradigm. For example, Bradley (2016) examines the collaborative agenda-setting processes of several donor-funded

North-South joint research projects and concludes that "even the most innovative partnership funding strategies cannot resolve all tensions and inequalities inherent to collaborative agenda-setting processes" between Northern and Southern partners (p. 37). Faul (2016) analyzes new network models of collaboration that are meant to be more adaptable, flexible, and "flat" in terms of hierarchical structure. She concludes that old power structures can still remain and become amplified in these networks and hypothesizes that "rewiring" these networks could address this issue. It is therefore imperative to be reflective about how to continue to change practice to address persisting unequal power dynamics and to achieve truly equitable partnerships.

COMMON PARTNERSHIP PRINCIPLES & BEST PRACTICES

With the relatively recent and rapid expansion of partnership approaches in international research and development collaborations, several organizations, including MSU's African Studies Center and now the AAP, have developed partnership principles or best practices (Helms, 2015; Wanni et al., 2010; Gaillard, 1994; Sutton & Obst, 2011; Sutton, 2015). Some of the most common elements mentioned in these guidelines are trust, transparency, mutual benefit and interest, effective communication, accountability, and sustainability. Many of these ideas overlap and reinforce one another. For example, trust is one of the primary partnership principles outlined in these documents. It is second most common behind mutual benefit and interest. Most point to long-term engagement or sustainability as the key to building trust in partnerships. In a review of good practices for UK-Africa educational partnerships, Wanni et al. (2010) state, "Partnerships based on trust and mutual respect take time to nurture and develop, but once achieved are in a much better position to deliver success in the long term. It is hard to create mechanisms to replace longstanding relationships and trust of partners" (p. 37). In Bradley's research on North-South partnerships, she (2016) found that "the development of long-term partnerships is an investment with considerable returns when it comes to agenda setting, as negotiations benefit from the trust partners have built up as well as their ability to be candid with one another and draw on past lessons to iron out present difficulties" (p. 63). Trust and sustainability therefore go hand in hand.

Mutual benefit is the most mentioned element of successful partnerships. Gaillard's (1994) first guiding principle of partnership states that "the collaboration should be based on a strong mutual interest and both partners should have something to gain from it." The American Council on Education

(2015) further elaborates, "Although the contributions of each partner—and the benefits each realizes as a result of the collaboration—may not be the same, they should be balanced, with mutual respect and recognition given to each party for its role" (p. 26). Sutton (2015) contends, "'Partnership' refers to an alliance among co-principals, with shared rights, responsibilities and commitments. Successful partnerships rest on principles of mutual benefit, joint decision-making, and honoring commitments."

Several authors point out that the benefits to each partner should be clearly laid out and understood at the beginning of the partnership or planning of any activity the partnership undertakes. Early collaborative agenda-setting is key and decisionmaking must be done jointly. Chernikova (2015) argues for "a joint engagement in the initial stage of conceiving the idea for the research or project, a clear understanding and open discussion of each other's goals, and the realization and acceptance of the challenges to be addressed" (p. 73). Bradley (2015), however, cautions that, in practice, the ability of partners to participate in agenda-setting may be uneven and hampered by external forces. "Even where Southern organizations have clearly defined agendas, they may be pressured by donors and local actors to disregard their chosen mandates" (p. 64).

CONCLUSION

In their 2016 book, *Delusions of Knowledge Transfer*, Koch & Weingart frame very nicely an ideal new direction for North-South partnerships.

The paradigmatic shift towards an egalitarian approach in development, to equal partnership and to recognition of local knowledge all point to a more sophisticated understanding of the communication of knowledge which would create conditions that allow for a process of co-creation of knowledge that is both scientifically sound and up to date, as well as adequately adapted to local circumstances (p. 15).

However, they go on to question whether and to what extent this ideal is currently being realized. The Alliance for African Partnership also plans to take up this question and explore what work remains to be done to achieve equitable partnerships which cocreate knowledge that will address global challenges. The AAP will then take this question one step further by identifying, testing, and then scaling up actions which support these types of partnerships. By learning from the history of North-South collaborations and basing its work on best practices and partnership principles, the AAP will focus on supporting more effective, equitable modes of partnership that lead to solutions for global challenges.

A HISTORY OF AFRICAN PARTNERSHIP AT MICHIGAN STATE UNIVERSITY

David Wiley and Jamie Monson

INTRODUCTION

The African Studies Center at Michigan State University (MSU) and its faculty have a long and complex history of partnerships with faculty, staff, and students in African institutions of higher education and research institutes. MSU today has more than 200 faculty and staff engaged in research, teaching, and development cooperation in nearly every African country, as well as more study abroad programs in Africa than any other U.S. university for both graduate and undergraduate students. The quality of our collaborations with African scholars and institutions is therefore of crucial and strategic importance. For such African engagements to be sustainable over the last halfcentury, the establishment, care, and feeding of these partnerships has been critical. Our partnerships have had their ups and downs over the years, as global economic and political shifts have impacted African nations, and conflicts have taken place within some African countries, especially during the years when the Cold War was being fought across Africa. Sailing has not always been smooth. Yet, even when some of our partnerships have struggled and some have failed, they are still critically important in our globally connected world.

To fully understand the benefits of sustainable partnerships for MSU's faculty, staff, and students as well as for the State of Michigan and the wider United States, it is necessary to understand the historical and contemporary contexts that have shaped that cooperation and the resulting possibilities for deep and lasting partnerships.

DECOLONIZATION IN AFRICA AND MSU AFRICAN STUDIES: THE 1960S

Beginning in the 1960s, the development of African Studies at MSU coincided with the dawning of political independence from colonial rule for African nations. This was a period of broad and deep commitment by many influential liberal elites in the U.S.—from Roosevelt to Kennedy and beyond—to establishing freedom, democracy, human rights, free trade, and a new global order that could reach nations

abroad, including those in Africa. Countervailing forces emerged in U.S. security agencies during the Cold War to compromise those commitments, with manipulation of African governments in the name of fighting the USSR and Eastern Bloc nations. However, the character of collaboration among African and U.S. higher education institutions was shaped by that decolonization of Africa and the

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newly found self-confidence of African peoples. This spirit of collaboration was supported in turn by a new commitment to "development," broadly supported in the U.S. through the U.S. Agency for International Development (USAID), Fulbright, the U.S. Information Agency and other prodevelopment programs. These government efforts were joined by those of private donors such as the Ford Foundation, the Rockefeller Foundation and the Carnegie Foundation, all organizations that supported international development programs in U.S. institutions of higher education including MSU (Rosenfeld, 2014).

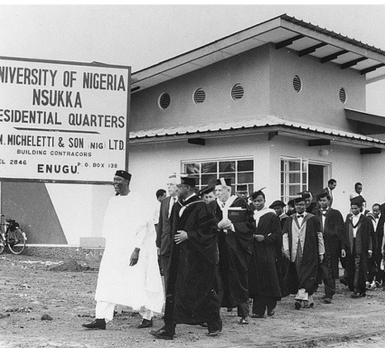
MSU PARTNERSHIPS AND THE LAND GRANT TRADITION

At MSU, the beginning of African partnership was shaped by its president from 1941-1969: John A. Hannah. President Hannah was a committed internationalist who later headed the U.S. Agency for International Development after expanding Michigan Agricultural College "...from a college of regional reputation into a nationally recognized research university."

MSU's beginnings as an agricultural college were shaped by the 19th century rise of industry and science

and by the sustained call for knowledge to support human development and scientific agriculture. This resulted at mid-century with the Morrill Act of 1862 and the founding across the nation of "landgrant colleges." From the 1830s to the 1850s, there had been a broad political movement, especially in the Midwest, urging the creation of agricultural colleges. The Michigan Constitution of 1850 called for the creation of an "agricultural school," followed in 1855 by a bill establishing the United States' first agriculture college, the Agricultural College of the State of Michigan. Known today as Michigan State University, this was the nation's first land-grant university, and it served as a model for the Morrill Act of 1862.

The Morrill Act sought to create colleges that could teach agriculture and "the mechanic arts" as well as classical studies. This would allow members of the working classes to obtain a liberal, practical education. In addition, in 1914 the Congress passed the Smith-Lever Act to provide federal support for land-grant institutions to offer instruction beyond their campuses through cooperative extension efforts in agriculture and home economics. This brought higher education to rural populations both on campus and also in their communities via cooperative extension outreach. The valuing of educational and professional development for rural life and production was an embodiment of the nation's commitment to democracy and universal education. For African scholars in the period following their nations' independence, this was highly attractive, and many sought PhD training in the U.S. in order to draw on that tradition.



MSU President John A. Hannah (third from front) marches in the opening convocation procession of the University of Nigeria at Nsukka, 1960. Photo: MSU Archives

PRESIDENT NNAMDI AZIKIWE AND THE LAND-GRANT UNIVERSITY IN NIGERIA

Excited by this land-grant democratic education, in the late 1950s, Nnamdi Azikiwe, governor of the Eastern Province of British Nigeria, Governor-General of Nigeria from 1960-1963 and first President of Nigeria from 1963-1966, came to MSU to seek a partner in building a "people's university" in Eastern Nigeria. With his education in the U.S. at Storer College and Columbia, Howard, and Lincoln Universities, Azikiwe had an admiration for the democracy and practicality of American higher education and especially its commitment to scientific agriculture and its application, as practiced at Tuskegee Institute (now University). In Nigeria, Azikiwe was dismayed that the University of Londonaffiliated University College of Ibadan, which had no agricultural studies or extension services at that time, was required to offer a University of London degree. and its largest faculty was in Classics. Azikiwe invited MSU's President John Hannah to form a partnership to build Africa's first "land-grant university."

THE UNIVERSITY OF NIGERIA PARTNERSHIP: LESSONS LEARNED

With support from the U.S. International Cooperation Agency—predecessor to the U.S. Agency for international Development (USAID)—many MSU faculty and their families joined their Nigerian partners from 1960 to 1967 to build and operate Nigeria's first indigenous university with a full curriculum in arts and letters, sciences, engineering, and agriculture. This partnership was of signal importance to MSU in developing faculty expertise on many aspects of Nigerian society, history, culture, economy, agriculture, governance, and more. The cooperation was interrupted by the civil war between Biafran and Federal Nigerian armies. The Federal Army victory in 1967 ended the MSU partnership, and for almost two decades the Federal Nigerian Government prohibited MSU personnel from entering the country because of their close association with the University of Nigeria seen as the seat of the Biafran rebellion and the "Igbo peoples" of the East. Some MSU faculty had been active in the U.S. in publicizing some of the atrocities of the war and, in the later stages, the food and medical crisis that resulted in the deaths of an estimated two million Eastern Nigerians. In 1990, relations were formally renewed by UNN Vice Chancellor Ikoku with an honorary degree awarded to MSU President DiBiaggio, who was accompanied to Nigeria by Dean of International Studies and Programs Gill C. Lim, MSU Trustee Melanie Foster, and African Studies



Sunlight on Ghanaian Fabric. Photo: Rebecca Kolai

Center Director David Wiley. A happy reunion was celebrated with President Azikiwe and many MSU alumni from Nigeria.

In spite of the termination of this partnership under tragic circumstances, it had important impacts on MSU, its interest in African language and area studies on campus, its approach to partnerships elsewhere in Africa, and its commitments to African development. It provided MSU faculty with their first experience of Africa and of African culture, and this shaped the subsequent careers of many faculty who found engaging research problems and colleagues in the African field. This large focus on Africa at MSU and the needs of graduate programs for research materials resulted in a focused investment in African library holdings and Africana librarians. For many, Nigeria provided the first experience of partnerships with foreign colleagues. Some of the resultant friendships and collaborations lasted for many years. The experience gave the faculty new understandings of issues and needs in socioeconomic development as well as practical experience of collaborative research, teaching, and administration abroad. A number of them subsequently traveled to other countries and institutions on the continent supported by Fulbright, Rockefeller, and Ford Foundation funding. In some cases, especially for Agricultural Economics, this foundational experience reshaped the direction of the entire department so that it became the fulcrum of much Western collaboration in African development, food security planning, and training of African PhD candidates who now are found in many universities and development institutes across Africa. Faculty in diverse departments became enthusiastic about PhD education for African candidates, and those faculty sought foundation and government funding for their African graduate students, often joining them after their graduate studies in cooperative research projects. Partnership with Nigeria demonstrated that excellent cooperation was possible with African colleagues and institutions and often was very rewarding.

SUPPORT FOR FREEDOM AND DEVELOPMENT IN SOUTHERN AFRICA: THE 1960S-80S

At the beginnings of African independence in the 1960s and 1970s, there was great optimism at MSU about the potential for freedom and development in the new nations, and the university was one of the national leaders in recruiting Peace Corps volunteers. MSU collaborations in Africa took a more activist turn during the decades of the 1970s and the 1980s in response to the persistence of colonial and minority rule in white settler-ruled states of southern Africa. In the extreme cases of Rhodesia, Mozambique, Angola, Namibia, and South Africa, MSU faculty and students in 1979 sided with the United Nations and its sanctions policies regarding these non-self-governing countries and opposed the pro-South African policies of the U.S. government. As a result, MSU Africanists approved a policy of non-collaboration for any of these countries while focusing our partnering efforts on majority-rule self-governing countries that had achieved independence. On campus, students and faculty joined in supporting sanctions against these minority regimes, including supporting African liberation movements with financial contributions and provision of information on U.S. policies.

The most difficult test of this policy arose with the proposal to disinvest the university's endowment stockholdings from U.S. corporations operating under and in cooperation with the South African government, including major donors to the university such as Kellogg, Dow Chemical, and the auto companies. In 1978, with strong faculty and student support across campus, the MSU Board of Trustees voted to divest the university of its holdings in stocks of corporations continuing to do business in South Africa, followed by a parallel action by the MSU Foundation in 1986. The university thereby became the first in the U.S. to completely divest its financial holdings.

In 1986, in order to address the need after minority rule for post-graduate training for southern Africans for their universities, MSU convened a national conference on education and training for South Africans and Namibians. This conference brought together representatives of U.S. colleges and universities, major U.S. foundations, U.S. government (especially the State Department and USAID), and representatives of the African liberation movements (ANC, PAC, SWAPO, ZANU, ZAPU, as well as representatives of the South African and newly independent Angolan departments of education). The conferees recommended graduate fellowships for refugee scholars who had been living in exile during the liberation struggles. While this plan was not realized due to financial limitations, in the 1990s MSU was able to provide fellowships to approximately 20 South African graduate students, many of them seeking advanced training in cultural and development-relevant fields.

The MSU African Studies Center has sought to be a leader in African partnerships, not only in establishing diverse, high quality and sustainable collaborations, but also in recognizing that meaningful engagement requires mutually agreed-upon ethical principles that serve as a guide.

In 1999, the MSU African Studies Center led a project to support the growth of high quality U.S. academic partnerships with South African universities and technikons. With support from the Rockefeller Foundation for the U.S.-South Africa Higher Education Foundation (HEF) through the American Council on Education, MSU created: a) the first online directory to all S.A. higher education institutions, their addresses and fields of study, a list that did not exist at that time; b) an online directory of South African government and private educational organizations with their purposes and contact information; and c) a database of U.S.-S.A. binational higher education partnerships with their purposes, funding sources, activities, and contact numbers.

In conversations with South African educational leaders in the U.S.-S.A. HEF, there was a recurrent request to develop standards of high quality partnerships for both U.S. and South African collaborators to use in planning and operating academic partnerships. To conclude the project, in 2005 in Johannesburg, the MSU member of the

Higher Education Forum of the U.S.-S.A. Binational Commission and representing U.S. Africanist scholars, collaborated in a meeting with members of the CTP, SAUVCA, and HESA, for a consultation to develop a set of ethical standards or guidelines for university partnerships between South African and U.S. higher education institutions. After long discussions and recurring reviews of draft documents, there was a unanimous agreement on a consensus document "Guidelines of 'best practices' for partnerships between tertiary institutions in South Africa and the United States."

DEVELOPMENT OF ETHICAL PRINCIPLES FOR AFRICAN PARTNERSHIPS

From the beginnings in the 1960s, the MSU African Studies Center has sought to be a leader in African partnerships, not only in establishing diverse, highquality and sustainable collaborations, but also in recognizing that meaningful engagement requires mutually agreed-upon ethical principles that serve as a guide. MSU's long experience with African colleagues, students and research subjects led to recognition by its faculty of the importance of transparency, equity and reciprocity in partnerships both between individual scholars and higher education institutions. This resulted in the MSU African Studies faculty and graduate student statement of ethics, "Faculty Guidelines for Scholarly and Professional Cooperation between Colleagues in Africa and Michigan State University" (see Appendix 1). Later, these ethical principles were utilized by the African Studies Association to develop their "ASA Ethical Conduct Guidelines."

One component of these MSU principles responded to the repeated insistence from African colleagues in light of many clandestine government programs of the Cold War to know who sponsored and funded MSU's research in Africa as well as, in light of U.S. government Title VI funding from the Department of Education, the African studies programs in the U.S. In the MSU principles, the faculty stated,

"We shall make every effort to keep all of our research, instructional, and service activities free of sponsorship, direct funding, or secret uses by military and intelligence agencies of all governments. We shall not knowingly engage or participate in projects which could be reasonably construed as sustaining or strengthening the powers of political leaders or states guilty of violations of human rights. Furthermore, we are committed to keeping in the public domain all work completed under any government sponsorship."

This overt rejection of military and intelligence funding was debated widely in the U.S. academic community and, eventually, was adopted by all the 11 other Title VI African Language and Area Studies National Resource Centers, the African Studies Association, and the members of the Association of African Studies Programs but not by other world regions centers. Subsequently, MSU worked together with African university vice chancellors, principals, and presidents from across the continent to further develop new guidelines for best practices in academic partnerships. This effort, supported by the Carnegie Corporation through the Association for African Universities (AAU), resulted in both guidelines for "Best Practices for International Partnerships between Higher Education Institutions in Africa and Abroad," (see Appendix 2) and, with the concurrence of many U.S. sponsors of many study in Africa programs, the "Guidelines for High Quality Study Programs in Africa."

CONTINUING THE TRADITION: THE ALLIANCE FOR AFRICAN PARTNERSHIP

In May 2016, MSU invited a core group of African leaders of academic and other institutions to join us in developing a new approach to African partnership that could build on our long experience and leadership. The Alliance for African Partnership was the outcome of this convening, and will launch a next generation of partnership that will move forward into the 21st century. The landscape of Africa is changing—demographically, in terms of challenges such as climate change, food sustainability, health, energy, water and cultural development—and the AAP is positioned to make a contribution to building the collaborative relationships that are needed to address these challenges.



2016 Alliance for African Partnership Convening participants, from left to right: Sosten Chiotha, Lisa Hinds, Thelma Awori, Amy Jamison, Aggrey Ambali, Isaac Minde, Ibrahima Thioub, Chance Kabaghe, Ebenezer Ansah, Jamie Monson, Jorem Awadu, Chinwe Effiong, Lou Anna K. Simon, Thomas Jayne, Denis Kyetere, Lisa Fruge, Steven Hanson, Nango Dembele, Eva Tetteh, Richard Mkandawire, Pauline Wambua, Penina Mlama, Paul Zeleza, Leonard Wantchekon. Photo: MSU

THE 2016 CONVENING OF THE ALLIANCE FOR AFRICAN PARTNERSHIP

Amy Jamison

Building on MSU's rich history of African engagement and commitment to authentic, equitable, and Africaled partnerships, the AAP leadership team made the decision to embark on a collaborative co-creation process to form the Alliance. The AAP Convening which took place May 10-12, 2016, on MSU's campus was the first step in that process. It brought together 14 distinguished African leaders with MSU faculty, staff, and students for a unique design workshop aimed at developing new ways that MSU and its partners in Africa can work together to address today's global challenges. The diverse group of invited African participants included government officials, university faculty and vice chancellors, nonprofit directors, and other professionals from nine countries on the continent. Four MSU MasterCard Foundation Scholars represented the essential voices of African youth, a demographic that makes up more than half of the population of sub-Saharan Africa. The focus of the workshop was on

partnerships—understanding previous experiences with partnership, identifying the crucial elements of partnership, and innovating new ways to expand the range of effective and sustainable partnerships to promote research, teaching, outreach, and mutual capacity building. The outcomes of the meeting directly fed into the formation of the AAP's priorities, activities, and initial resource commitments.

The workshop opened with a simple question: "What makes a good partnership?" The answer to that, as the participants discovered, is not so simple. This question was the starting point for a dynamic innovation process, utilizing design thinking techniques, that took participants through a series of structured exercises in pairs and in small teams. The two-and-a-half-day workshop had three stages:

1) identifying the principles of good and effective partnerships, 2) designing partnership activities that the AAP could enact, and 3) modeling the AAP structure and designing the next steps for the



Convening participants listen to a presentation on potential activities for the Alliance for African Partnership. Photo: MSU

initiative. During the highly interactive workshop, participants were able to forge new relationships, share ideas, and collaborate to develop six partnership principles, outlined below, that have served as a guide and reference tool for developing AAP's activities moving forward. Participants put in many hours of hard work to come up with model of partnership that would be innovative, mutually beneficial, sustainable and effect real change in Africa.

In the course of the AAP convening workshop, MSU and African leaders identified several trends in research, technology, funding, and social and cultural issues that they felt the AAP should take into consideration in its approach. For example, they asserted that research is increasingly moving in interdisciplinary and collaborative directions that are multi-sited and global. Additionally, they pointed to a growing demand for "transformative" research with outcomes aimed at transforming communities and institutions as well as individuals' lives. They raised the potential of social media, technology and network hubs, and other communication technologies for connecting people and innovating new ways of sharing information as a possible tools the AAP could use to support its work. Gender inclusion, the importance of indigenous/ local knowledge, challenges and opportunities around the increasing mobility of scholars, and the important role of youth in Africa were all raised as social and cultural trends that should be addressed. Finally, participants noted the changing funding landscape for research, teaching, and development both globally and within Africa. They pointed to the increasing role of private funding and public-private



Pauline Wambua (left) and Mwele Malacela (right) participate in a visioning exercise during the 2016 Convening of the Alliance for African Partnership. Photo: MSU

partnerships as well as a positive trend of more and more funders emphasizing partnerships and Africarelated research.

The major outcome of the convening was the descriptions of ideal partnerships generated through team discussions among the African and MSU-based participants. Below are the six partnership principles that emerged and were recommended to guide the AAP's development and activities. Teams composed of a combination of MSU and African scholars then used these six principles to prototype their vision of an ideal AAP model. These visions were then compiled into the AAP's Partnership Approach, Key Components for Partnership Success, and Partnership Criteria which the AAP has adopted as its core framework.

AN IDEAL PARTNERSHIP IS:

- 1. A mutually beneficial relationship with a shared vision for producing transformative change at local and/or global levels.
- 2. Based on trust, mutual respect, transparency, empathy, and accountability between the partners.
- 3. Envisioned from the beginning to be sustainable beyond an initial grant cycle, with a view toward long-term collaboration, mutual benefit, and mutual capacity building.
- 4. Founded on clarity of purpose, with clear contributions to society.
- 5. Based on engagement of partners at the beginning, in which objectives, activities, resource mobilization and resource allocation plans are developed jointly.
- 6. Built on a foundation of solid partnership principles and values, which produces a governance structure that reinforces accountability and maintains clear auditing, a structured work plan and metrics, and also personnel and resources that are appropriate, globally focused, and culturally sensitive.

AAP PARTNERSHIP APPROACH

- The AAP must be based on mutual benefits for partner institutions and focus on mutually defined issues.
- The AAP should take a collaborative and consultative approach.
- The agenda of AAP and its partner institutions needs to be Africa-focused and Africa-led.
- Joint investment and ownership by all partners and enacting the values of good partnership are key to the AAP's success.
- The AAP should facilitate and strengthen the effectiveness of already established partnerships while generating new partnerships.
- The AAP and its partners need to have a shared vision.
- The AAP's work must align with national policies in the countries in which it works.

KEY COMPONENTS FOR PARTNERSHIP SUCCESS

- A successful AAP will require trust, transparency, and respect from all partners.
- The AAP will need to clearly define objectives and goals and should be specific in its focus.
- A clear organizational structure is essential.
 This could include a leadership team and other implementing personnel, a steering committee, and/or an advisory board with representatives from diverse stakeholders.
- The AAP must have adequate funding and a solid infrastructure.
- Monitoring and evaluation is a critical component to assure success.
- The AAP should develop a shared vision with partners.

PARTNERSHIP CRITERIA

- The AAP and its partners will need a shared vision and mutually shared interests.
- Multiple stakeholders should be represented as partners: community-based organizations, government, private sector, research and educational institutions. Also, partners should include organizations on national, regional, and continental levels.
- Partners should be credible, trusted, and transparent institutions.
- The AAP may consider building on and/or continuing to support past partnerships.
- The AAP and its partners should have complementary expertise.
- Partners should be connected and grounded in communities.

The 2016 convening laid a very solid foundation for the Alliance for African Partnership. The process of co-creation was essential to forging new models of partnership based on co-developed partnership principles that will guide the AAP's future directions. The AAP wanted to demonstrate a commitment to common agenda-setting from the very outset of the initiative. The management team and AAP advisory board used the outputs of the convening to drive all of the AAPs initial activities and inform its organizational structure. The principles and guidelines produced at this workshop will continue to be the framework on which the AAP bases its work moving forward.

BUILDING BRIDGES

The first pillar of the Alliance for African Partnership is Building Bridges, capturing the idea of bringing people and organizations together to work toward common goals. Global challenges are too vast and complex for any person or institution to go it alone. We envision and work toward innovative models of partnership that will address these challenges—facilitating new relationships between people and organizations that may not have traditionally worked together in the past. Bridges need to be built between government, NGOs, industry, and educational institutions, between researchers in different disciplines, and among institutions across African and around the world. Time and energy must be spent on doing the difficult, but necessary and rewarding work to build deep, lasting, and multifaceted partnerships for global solutions.

ENDEAVORING TO NURTURE PARTNERSHIPS

Isaac Minde and Thomas S. Jayne

INTRODUCTION

Too often we talk of smart partnerships, referring to those that embrace key principles of relationships in general, e.g., respect, trust, sharing. But rarely do we stop and think hard about how to make smart or true partnerships happen in practice. And how do we sustain them once they are formed? And how do we begin to rectify some of those principles between partners when we see, for example, that trust or respect is in danger? These partnership principles are a difficult promise to keep and are always going to be more difficult to implement in practice than when writing about them! This piece argues that true partnerships do not simply happen, and so it is not enough to just declare them. Rather, they must be "cultivated" over time with sincere commitment, dedication, and determination.

It is our premise that partnerships are more effective and sustainable if they resist the tendency to exercise differential power. Power differentials create obstacles to partnership.

A SHORT DIVE INTO THE PRINCIPLES

Respect—everyone desires respect.

This is based on the idea that everyone is worthy and recognizes everyone's right to self-determination. If we embrace this principle, then we will treat our partners with respect and honor their opinions and views. True partnership is impossible without mutual respect. In the context of being respected, it also follows that everyone must be heard. This principle is based on the statement "seek first to understand" (Covey, 2011). It calls for, and requires one to have a positive mental attitude about the partner, his or her opinion, or what he or she is going to saydifferences in educational qualification, social status and appearance notwithstanding. Respect also carries the recognition that everyone has strengths and weaknesses. It recognizes that all people have many resources, past successes, abilities, talents, dreams, etc., that provide the raw materials for future success. As "helpers" we become involved with people because of their problems; these problems then become filters that obscure our ability to see strengths. Acceptance of this principle doesn't mean that one ignores or minimizes problems. It means that one works hard to identify strengths as well as problems so that the helper and the client have a more balanced, accurate, and hopeful picture (Appalachian Family Innovations, 2003).

It is our premise that partnerships are more effective and sustainable if they resist the tendency to exercise differential power. Power differentials create obstacles to partnership. Since society confers power upon the helper, it is the helper's responsibility to create a partnership with a client. Clients do not owe us their cooperation. We must earn it.

Partnership is a process.

It takes time to achieve a functional partnership. A partner may be slower than expected to accomplish an agreed task. Instead of expressing frustration or reprimanding (partly due to differential power), it would be better to step back and ask what exactly is making the partner fail to comply? And together the solution may be found. In a partnership capacity strengthening project with one institution (where I was representing a donor), one senior member who was failing to keep the delivery deadlines came to me and said, "Although I am thankful for all the help that this project is providing to our institution, I should tell you that by the time you came up with this project, my plate was already full. Thus, what I have to do in this project as assigned by my superiors is over and above my allocated time. And after all there is no real incentive to work extra hours on the project. So please do not be surprised if your proposed deliverables come late." A lesson learned here is that some of the partners we work with may not have been really ready to work with us. Or maybe those that are expected to work with us are not the signatories in the partnership. We should therefore be keen in nurturing the partnership all the way through the project and especially at the beginning.

Trust.

Adopting transparency measures is perhaps one of the best tools for cultivating trust in a partnership. Communicating expectations and assumptions in an open meeting or forum can set the scene for behavior protocols and how we want to work in a partnership.

How and who we choose to communicate with will determine whether the partners can trust in each other. Successful partnerships are often those that design behavior protocols (laying out expectations of how issues will be dealt with) which could include things such as dealing with finances, publication authorship, monitoring and evaluation, reporting requirements, etc.

WHAT IS THE ROLE OF MINDSETS IN NURTURING PARTNERSHIPS?

Mindset is an important factor that potentially influences relationships in partnerships. Mindset has been variously defined as established attitudes held by someone, beliefs about oneself and ones most basic qualities. It involves things like intelligence, talents, personality, etc. How we respond to challenges and setbacks is often determined by our mindset. According to Argyris (2004), there are two dominant mindsets in organizations: the productive mindset and the defensive mindset. The productive mindset seeks out valid knowledge that is testable. The productive reasoning mindset creates informed choices and makes reasoning transparent.

The defensive mindset, on the other hand, is self-protective and self-deceptive. When this mindset is active, people or organizations only seek out information that will protect them. Truth can be shut out when it is seen as threatening. While elements of our personality—such as sensitivity to mistakes and

setbacks—can make us predisposed towards holding a certain mindset, we are able to develop and reshape our mindset through our interactions. Individuals can be placed on a continuum according to their implicit views of "where ability comes from."

Dweck (2006) provides another category which we believe is important in understanding and nurturing partnerships. According to her, there are two categories—growth mindset versus fixed mindset—that can group individuals based on their behavior, specifically their reaction to failure. Those with a "fixed mindset" believe that abilities are mostly innate and interpret failure as the lack of necessary basic abilities, while those with a "growth mindset" believe that they can acquire any given ability provided they invest effort or study.

Based on the above classifications it is clear that promoting true partnerships would favor productive and growth mindsets as opposed to defensive and fixed mindsets.

When we encounter a problem in partnerships, we should not immediately begin blaming the other side. Patterson et al. (2013) caution that we must work on ourselves first because the problem may well be on our side.

Some takeaways from this brief are that we need to be determined to stand for the purpose of the partnership we have built; we need to demonstrate commitment and dedication; we need to be openminded at all times and have a positive mental attitude of understanding others. And when things go wrong, let's deeply examine ourselves first because we may be the ones in the wrong!

PARTNERSHIPS IN THE ARTS AND LITERATURE:

Challenges and Opportunities for Building Bridges between Africa and the World

Penina Mlama

Partnership between African and foreign universities has witnessed a long history of complexities in relation to negotiation of terms, content, and nature of partner engagement. Nowhere have the complexities been more formidable than in the cultural sphere, particularly in the arts and literature. This is due to the role of art and literature as tools for self-determination and cultural identity. The long history of foreign socioeconomic control of Africa has often put African art and literature in a collision path with the forces cultural domination. It has been a catalyst of movements, such as Negritude and Ubuntu that have sought to assert Africa's cultural identity, shape or transform the African mind towards valuing what is African.

This quest for the assertion of Africa's cultural identity has, in various forms, informed partnership in art and literature between African and foreign universities, often posing a number of challenges. One challenge came immediately after gaining independence with the realization that the former



Dance performance at the 2015 MSU African Student Union Gala. Photo: Simon Lee

colonial master was yet to control the intellectual advancement in the newly established universities in the former colonies. The lack of resources forced many independent governments to continue to depend on their former colonial masters for the provision of the much-needed knowledge base and skilled human resources for the running of the new nations. This included training of large numbers of staff at masters and doctorate levels in the colonial masters' home universities, while paying for a sizable number of expatriate staff to run the African universities both academically and administratively.

Some quarters argued that, from a cultural view point, these newly established African universities had in this way, sold the minds of their young people to be shaped and influenced by the same forces of their previous subjugation. This is one reason why African art and literature scholars of the 1960s and 1970s put up a resistance against attempts at intellectual cultural domination of African universities particularly through British or French art and literature curricula taught at the exclusion of African content. This was, in addition, a period of prolific production of African art and literature, leading to the birth of the now internationally known literary figures like Wole Soyinka (Nigeria), Ngugi wa Thiong'o (Kenya), Ousman Sembene (Senegal), Okot p'Bitek (Uganda), Ebrahim Hussein (Tanzania), Chinua Achebe (Nigeria), and many more.

This resistance to foreign domination and the zeal to produce Africa's own art and literature however, put "partnership" in the cultural sector between African and foreign universities on a slippery pedestal. The two were on a collision path and the concept of partnership was difficult to apply because the relationship was still that of a former colonial master who still wanted to dominate and the former subject who was rejecting such domination. Indeed, even the term "partnership," an invention of the late 1990s development aid debate, did not exist at the time. Yet through the art and literature of self-determination, people's lives were transformed to value African aesthetics and identity.

More challenges in the definition of "partnership" emerged with the extension of collaboration with African universities beyond the former colonial masters. New players entered the scene including the United States, Germany, Netherlands, and the Scandinavian countries of Sweden, Denmark, Norway, and Finland. African universities negotiated different types of partnerships for each of these countries and the quality of partnership differed according to the level of willingness of the foreign partners to subscribe to Africa's right to self-determination.

Whereas new important avenues and new opportunities were opened up in the fields of science, engineering, the social sciences, or medicine, the complexities with regard to the arts and literature did not quite go away. It is acknowledged though, that a few countries, specifically the Nordic countries— Sweden, Norway, Denmark, and Finland-proved quite successful in forging partnerships with African universities in the cultural sector without intentions to impose Nordic cultural values. They instead opted for the approach to cultivate an understanding and respect of each partner's culture. They even experimented with joint artistic performance depicting both cultures with a view to informing audiences in the partner countries of what the other country had to offer. Such a paradigm offered a new space for transforming lives from the point of view of learning to respect other cultures and learning lessons from other art and literary traditions.

Many of the other partners however, were more often unwilling to give space to African art and literature, focusing instead on spreading their own cultures to audiences in African universities. This position was cemented by the approach of channeling funds to universities for cultural activities through such donor country cultural promotion institutions as the British Council, Alliance Française, Goethe Institute, or cultural units in embassies. Through such institutions, foreign musicians, poets, painters and writers were brought to African Universities to perform and lecture on the arts and literature of their countries of origin. Sometimes departments of literature and art were financially supported to stage foreign works of art like the British Shakespeare's plays. An example comes to mind when in 1978, at the University of Dar es Salaam, an official of the Goethe Institute in Dar es Salaam put a condition that the Department of Fine and Performing Arts must mount a production of Beltolt Brecht's "Mother Courage" before the Institute could consider extending any grant for a request to support research on Tanzanian indigenous art.

The Cold War prior to 1989 brought yet another dimension into the partnership arena whereby the

intense competition between the superpowers, led by the United States in the West and the then Soviet Union in the East, extended the desire to influence knowledge production, including the arts and literature. There was a sharp rise in the opportunity for African university students to study abroad both in the West and East. There was an increase in the sponsorship of artistic groups from the West and East to come and perform at African university campuses. The Russians and North Koreans joined the bandwagon of establishing cultural centers in African countries and mounting performances of music, dance, film shows and other forms cultural activities at the centers and university campuses, particularly in socialist oriented countries like Tanzania.

It is clear...that while African universities' art and literary scholars were busy attempting to transform the minds of the young Africans towards valuing African cultural identity, foreign powers from the West and East were also trying to influence the same minds towards valuing their own cultures.

The North Korean Cultural Centre in Dar es Salaam, in 1995, for example, extended support to the University of Dar es Salaam Department of Fine and Performing Arts project on "Theatre for Children" by giving five hundred copies of Kim Il Sung's book, *The Juche Idea*, with the instruction that it had to be distributed free of charge to every participating child. The children in this project were aged 7 to 14.

The more recent entrant to the cultural partnership scene is China, which has established Confucius Institutes in over 40 African universities where the teaching of the Chinese language is a major engagement. The programmes of these Confucius Institutes include frequent performances on university campuses of Chinese music, acrobatics and dances, often by troupes flown in from China. Exhibitions of Chinese art by visiting Chinese artists are also mounted regularly.

What are the implications of these developments for the role of the arts and literature in transforming lives? It is clear from the discussion above that while African universities' art and literary scholars were busy attempting to transform the minds of the young Africans towards valuing African cultural identity, foreign powers from the West and East were also trying to influence the same minds towards valuing their own cultures.

It also important to mention that there are some other countries who are not interested in entering into any partnership involving culture in general or the arts and literature in particular. This is reflected in the very small number of partnerships between African and foreign universities in the cultural sector. One also notices the very negligible number of grants extended to research or training projects offered for the cultural sector by major funding agencies for universities across the world.

What is the reason behind this state of affairs? Could it be that potential partners find this field too difficult to handle because it calls for an understanding of another people's culture or developing a certain level of aesthetic appreciation and respect for its arts and literature? Could it be that they belong to the tradition that disparages African culture and its expressions, thus seeing no value in investing time or resources to its advancement? Could it be a result of a failure to impose their cultural traditions caused

by resistance from potential partners on the African side? Whatever the reasons may be, there is serious dearth of partnerships between African and foreign universities. As such, whatever potential there is for art and literature to transform lives, it can hardly be exploited.

The situation discussed above presents the core challenges in future efforts towards forging more effective partnerships in the arts and literature between African and foreign universities. It is gratifying to note that the Alliance for African Partnership has already started reflecting on these challenges and is setting out on a course to address or avoid them with a view to building a more effective partnership that will, instead, build bridges, transform institutions, and transform lives.



Leah and Desmond Tutu (front) with their daughter, Mpho Tutu-Van Firth (back left), Marsha MacDowell, MSU Museum curator (back middle), and Aleia Brown, visiting scholar with the MSU Museum (back right), at a cultural heritage event held at the Nelson Mandela Gateway Museum. The Ubuntu and Cultural Heritage event was held in cooperation with the Michigan State University Museum and the Desmond and Leah Tutu Legacy Foundation as part of a week of MSU-South Africa partnership activities in Cape Town that was kicked off with the quilt exhibition: "Ubuntutu, Life Legacies of Love and Action." Photo: MSU African Studies Center

TRANSFORMING Institutions

Transforming Institutions is the second pillar of the Alliance for African Partnership. Large-scale and long-term partnerships are not possible without institutions to take part in them and support them. In order to transform the way we partner, we must also transform the institutions that participate in the partnerships to be more effective and engaged. This pillar focuses on promoting sustainable and effective partnerships that enhance institutional resources and increase institutional capacity. AAP activities under this pillar support institutional capacity development writ large, including supporting educational and research improvements and innovations, building administrative capacities, and shaping institutions to be more effective and equitable internally and in the way that they partner with others.

BUILDING STRONG SOUTH-SOUTH PARTNERSHIPS FOR UNIVERSITY TRANSFORMATION IN AFRICA:

Lessons from RUFORUM

Moses Osiru, David Ekepu, and Adipala Ekwamu

Against a backdrop of an expanding university sector, the role of the African university requires critical reflection. High and rising social demand coupled with inadequate attention to the sector is challenging the capacity of universities to contribute more effectively to the development agenda at national level. Knowledge generation remains low¹ due to a low proportion of PhD qualified staff, weak postgraduate programs, inadequate financing for research and over-focus on undergraduate level teaching. African universities are an underutilized resource. A critical mass of professionals reside within universities, highlighting the important need to urgently strengthen these institutions. The African university will play a major role in providing solutions that will stimulate growth across sectors towards meeting the Sustainable Development Goals.

African universities are an underutilized resource. A critical mass of professionals reside within universities highlighting the important need to urgently strengthen these institutions.

However, institutional transformation of the university sector is required to enhance the quality of education, strengthen research output, widen access to higher education and ensure that products (graduates and knowledge) are relevant to the needs of clients, particularly the labor market that will lead to national economic growth.

Established in 2004 by 10 vice chancellors, the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is a network of 66 African universities operating across 26 countries in Africa. RUFORUM's mission is to "strengthen the capacities of universities to foster innovations responsive to the

 $1\,$ Africa's share of global knowledge production is below 2%, with over 85% from African universities.

demands of smallholder farmers and value chains through the training of high quality researchers, the output of impact-oriented research, and the maintenance of collaborative working relations among researchers, farmers, market actors, national agricultural research and advocacy institutions, and governments." This short note shares seven key lessons from the RUFORUM model on South-South collaboration to support the strengthening of university agricultural education in Africa.

LESSONS ON SOUTH-SOUTH COLLABORATION

South-South collaboration is critical for rebuilding university education.

Rebuilding African faculties of agriculture meant starting from a very low resource base. The importance of leveraging economies of scope and scale was early on recognized as a key underpinning to the approach of RUFORUM. RUFORUM vice chancellors recognized that there was need to improve collaboration across African universities to improve the sharing of best practices, sharing of infrastructure and resources (including teaching staff) and to provide a platform for networking, advocacy and resource mobilization. A competitive and globalized world needed farmers and businesses in Africa to have context specific knowledge to enhance efficiency value chains. Building strong postgraduate programs was seen as an important tool to achieve this. Masters students would provide both a pipeline for PhD training, but also the opportunity to nurture a new crop of "problem solvers" to support implementation of agricultural programs on the continent. PhD training would be required to strengthen university staff capacity. Agriculture, employing over 70 percent of Africa's labor force and contributing over 30 percent of GDP,2 was seen as the most logical starting point. RUFORUM set out to focus the attention of vice chancellors on this sector. A competitive grants system was used to improve

² data.worldbank.org/indicator/NV.AGR.TOTL.ZS

university understanding of grassroots, strengthen cross-disciplinary, cross-departmental, and cross-institutional research teams involving students to respond to smallholder challenges along the value chain. The Community Action Research Program provided a model for using university knowledge to impact on smallholder farmer incomes at scale. This program is one example of building networks across institutions for South-South partnerships that improve not only the general quality of higher education, but also higher education's relevance to communities and overall contribution to development.

Available resources in Africa could be better rationalized and shared, and there is need for South-South-North partnerships.

Postgraduate programs in Africa often have low numbers of students, making the implementation unnecessarily expensive³ at country level. Many programs have duplicated content with different names (RUFORUM, 2011). Additionally, weak staffing at the PhD level results in staff not being available in each university (and particularly in smaller countries) to support mounting key programs that would train skilled graduates to respond to job market needs. RUFORUM deans and principles worked together to identify comparative advantages of each member university. Based on this comparative advantage and the needs of Africa's agricultural sector, eight PhD programs and three Regional Masters programs were initiated (Njeru, 2014a; Njeru, 2014b). Curriculums were rebuilt to ensure regional relevance, including to the needs of government and the private sector. Due to the (continental) catchment area for students and lack of strong quality assurance mechanisms at the secondary education level, it was important to have one year of coursework to provide a sound theoretical basis for all students. Skill-enhancing courses were mounted using a "caravan approach" with trainers moving from one university to another providing courses on cross-cutting areas such as proposal writing, research methods, gender, and personal mastery. Partnerships were initiated with American and European universities to improve curriculum design and delivery. A joint MOU was signed by member universities to allow for staff exchange across institutions. A second MOU allowed for students from member universities in foreign countries to train within other member universities at local fees which was to be a key underpinning for the increased academic mobility and the Graduate Teaching Assistantship Exchange program. Universities were keen to contribute

resources collaboratively to support their own staff development. A number of these programs, with support of the RUFORUM Secretariat, applied for and received funds from African governments through the World Bank Centers of Excellence Phase II Project for Eastern and Southern Africa.

Enhancing academic mobility improves university education quality.

RUFORUM has worked with its member universities to facilitate placements at other member universities. RUFORUM, with support of the Intra-Africa Academic Mobility Scheme, provided support to over 417 students across member universities. RUFORUM's role was to provide technical support to member universities and to provide mentorship to students. The vice chancellors were important in solving mobility challenges.

South-South mobility can strengthen university staff capacity development.

The emergence of new universities, often initiated without adequate financial and other resources, further stretched existing academic staff capacity (Nakayiwa, et al., 2016; Hayward and Ncayiyana, 2014). In 2014, RUFORUM vice chancellors initiated the Graduate Teaching Assistantship Exchange (GTA) to provide a mechanism for training university staff to the PhD level in Africa. Universities offered tuition free "staff scholarships" for staff at partner member universities and allocation as part of university faculty at the "receiving university" during the period of study. The "sending" university would pay the cost of travel, research and continue paying the salary of the staff going out for PhD training. Currently over 42 PhDs are in the program with a total of 325 committed by the vice chancellors. The program reduces "inbreeding" by promoting exchange. It also keeps the cost of training manageable, when compared with training in the North and evidence has shown already that graduates will come back to their home university after training.

Postgraduate training is constrained by weak undergraduate programs.

At the same time, to ensure integrity of the education pipeline and reduce leakages, there was agreement on the need to strengthen undergraduate training and skills development to lay a solid foundation for students who will eventually seek postgraduate training. Undergraduate students were attached to research projects being led by masters and PhD students to improve the training experience and enhance mentorship. Entrepreneurship programs were piloted at both undergraduate level and postgraduate level.

³ Postgraduate classes often had fewer than five students per class with some as low as one or two students, making teaching costly and inefficient.

Universities can make a significant contribution to support farmer product and value addition.

Extension systems in Africa remain weak and are not adequately supporting smallholder farmers with the knowledge needed to support production. Challenges include poor linkages between research and extension as well as staff who are not well qualified and/or updated to provide relevant community education for farmers. RUFORUM has worked to design and pilot new models of community outreach of universities to support rural transformation. The students are well received by farmers and play an important role in bridging the gap between the university and community both by enhancing university understanding of farmers' problems and also bringing university expertise to farmers. RUFORUM has benefited from partnership with northern partners, including EARTH in Costa Rica.

Policy will play an important role in supporting transformation of the university sector.

Research in Africa relies heavily on external funding. Development partner funding is usually short-term in nature and follows development partners' priorities closely. African governments will need to enhance contributions to African research to ensure support for research that responds to national issues. RUFORUM's 66 vice chancellors have stepped up their policy engagement. The Conference on Higher Education and Agriculture was organized by RUFORUM in 2010 in Kampala, Uganda and brought together ministers of education, agriculture, and finance to discuss the need for investment in agricultural higher education. A key recommendation was the need to promote female participation in agricultural higher education. This meeting contributed to the formulation of the World Bank African Centers of Excellence Program. Subsequently, RUFORUM has engaged with the African Union Commission and selected presidents to strengthen their policy focus on higher education in general which has contributed to the establishment of the committee of ten African heads of state to champion education, science, and technology.

African governments will need to enhance contributions to African research in order to ensure support for research that responds to national issues.

Governance and ownership by Africans is important for sustainability.

RUFORUM derives its agenda largely from continent-wide policy frameworks, especially the African Union–New Partnership for African Development (NEPAD); the Comprehensive African Agricultural Development Programme (CAADP); the African Union Science, Technology and Innovation Strategy for Africa (STISA 2024); and the African Union Policy Framework on Revitalizing Higher Education in Africa, among others. In July 2014, RUFORUM signed a cooperation agreement with the African Union to support the implementation of the new African Union Science, Technology and Innovation Strategy for Africa, 2024 (STISA 2024).

Strong ownership by African vice chancellors has enhanced the ability of the network to respond to university-level challenges by providing policy support and guidance at the university level. In addition, the platform provides a powerful tool for advocacy and impactful South-South partnerships by bringing together 66 African vice chancellors from across Africa. Universities pay a membership fee of US\$5,000 annually, and cover the cost of attendance to vice chancellors' meetings once a year. Universities make other various contributions such as funding for staff capacity building through the Graduate Teaching Assistantship program, costsharing of key meetings, and contributions of office space and university resources. The government of Uganda provides free office space to the RUFORUM secretariat, which is hosted at Makerere University.

MOVING FORWARD

Through its Strategic Business Plan 2015-2020, RUFORUM envisages that by 2020 there would be three outcome areas: 1) need to enhance the relationships between universities and African governments; 2) need to strengthen university and industry/business linkages; 3) need to increase academic mobility across Africa. There is also an important need to enhance capacity for leadership and management of university vice chancellors and university management of intellectual property. RUFORUM recognizes the need for enhanced partnerships with northern universities, such as land-grant universities, to increase the sharing and adaptation of best practices to university reform in Africa. The relatively weak resource base of Southern institutions re-emphasizes the important role that South-South partnerships and collaborations need to play to support institutional transformation that would improve the role and contribution of African universities towards development processes.

THE CHANGING LANDSCAPE OF PARTNERSHIPS FOR THE TRANSFORMATION OF AFRICAN AGRI-FOOD SYSTEMS

Richard Mkandawire, Thomas S. Jayne, and Isaac Minde

"Africa is beyond bemoaning the past for its problems. The task of undoing that past is ours, with the support of those willing to join us in a continental renewal. We have a new generation of leaders who know that we must take responsibility for our own destiny, that we will uplift ourselves only by our own efforts in partnership with those who wish us well." —Nelson Mandela

This quotation succinctly captures current thinking in Africa for charting the course of economic transformation through African-led and African-owned partnerships. When Africa's leaders founded the New Partnership for Africa's Development (NEPAD) in 2001, they were sending a powerful statement to the African and global community that they were committed to defining new relationships that emphasize African ownership of policy and program processes with support from international partners.

NEPAD reflects the belief of all African leaders that they have the responsibility, working in partnership with the African peoples, to address the region's challenges of poverty, social exclusion, and transformation. While these goals are laudable, they remain elusive and it is our premise that more effective partnerships between African and international research and policy analysis units will be needed to make swift progress toward achieving these goals.

In recent years, there has been a shift of focus from "agricultural productivity growth" to the "transformation of agri-food systems" (AGRA, 2016). This shift reflects the recognition that in countries that are primarily agrarian, the agricultural sector's fundamental contribution to rising living standards is through the "multiplier effects" that agricultural growth provides to the rest of the economy (Jayne and Ameyaw, 2016). When millions of small farms experience productivity growth, then millions of rural people spend more in the local rural economy, opening up new jobs in the non-farm sector, diversifying employment, and contributing to demographic and economic transformation.

The shift in focus from "agriculture" to "agri-food systems" reflects the recognition that it is the entire system—including agri-input suppliers, farmers, transporters, wholesalers, agro-processors, retailers, and finance—not just farmers, who must be involved to achieve transformational objectives (Allen et al., 2016).

WHAT ARE THE MAJOR CHALLENGES THAT EFFECTIVE PARTNERSHIPS COULD ADDRESS?

African leaders face formidable challenges in sustaining progress toward agricultural transformation. Consider the following:

Overcoming low spending on agricultural research and development (R&D) by African governments.

While applied studies consistently show that investment in agricultural research (e.g., improved seed varieties, best practices for soil management, breeding stock improvements) are among the most effective means of achieving agricultural productivity growth and poverty reduction, most African agricultural research systems are woefully underfunded. Their weaknesses constrain the pace of agricultural productivity growth in the region (Fuglie and Rada, 2013). Asian farmers benefit from the fact that their governments spend over eight times more annually on agricultural R&D on average than African governments. Not surprisingly, the pace of agricultural productivity growth in Asia has eclipsed that of Africa over the last several decades. Table 1 compares the total number of agricultural researchers and total spending on agricultural research for a number of Asian, Latin American and Africa countries.

Table 1. Measures of public sector commitment to agricultural research and development, 2016

	TOTAL AGRICULTURAL RESEARCHERS (FTE)	TOTAL SPENDING ON AGRICULTURAL RESEARCH (MILLIONS OF CONSTANT 2011 PPP DOLLARS)
Bangladesh	2,121	251
Brazil	5,869	2,074
Chile	716	186
China	na	9,366
India	12,746	3,298
Vietnam	3,744	136
Burkina Faso	311	49
Cote d'Ivoire	253	82
Ethiopia	2,768	127
Ghana	575	197
Kenya	1,178	274
Malawi	158	28
Nigeria	2,975	433
Tanzania	858	102
Zambia	246	27

Source: Agricultural Science and Technology Indicators (ASTI) database, www.asti.cgiar.org, accessed May 28, 2017.

The constraints holding back the competitiveness of African farmers are increasingly shifting from problems of remoteness to a lack of science-based best practices.

Advances in ICTs are making it increasingly feasible to provide information and finance to farmers even in the most remote areas. And the rise of secondary and tertiary towns in areas formerly considered rural is rapidly improving market access conditions for millions of smallholder farmers. Increasingly, the binding constraint on smallholder productivity is inability to provide farmers with proven "best practices" regarding farm management and input use appropriate for their specific areas due to decades of weak and underfunded agricultural research and extension programs.

International research and development can be more effective with solid local R&D systems.

International R&D provide invaluable services, but they cannot fully substitute for local R&D because agricultural technologies, especially seed varieties, must be locally adapted, tested, and refined to suit Africa's highly varied agro-ecological conditions. Building African R&D capacity requires sustained investments in people, lab facilities and equipment, budgets for field trials, providing bi-directional colearning between farmers, extension agents and scientists, and other recurrent costs. And because the benefits of most agricultural R&D investments accrue broadly and cannot be captured by firms investing in them, there is a strong role for sustained support for public R&D.

Aging African scientists.

As of 2014, half the region's PhD-level agricultural researchers were in their 50s and 60s, close to retirement age. The region increasingly requires highly skilled agricultural scientists and technical analysts to provide home-grown responses to the region's challenges, and hence governments will need to redouble their efforts to ensure that the growing demands—by both the private and public sectors—can be filled by highly competent Africans.

A vicious cycle?

Unfortunately, little progress has been made over the past several decades in building African universities, scientific crop and livestock institutes, and transformation-oriented policy research think tanks to support agricultural productivity growth and improved rural living standards, as the USDA and land-grant systems did for U.S. farmers and rural communities for the past 150 years. International development assistance has typically addressed these weaknesses by providing grants to organizations in the Consultative Group on International Agricultural Research (CGIAR) system, private developmentoriented companies, and international universities. Donors make such grants with the view that African organizations are too weak to generate positive outcomes from direct grants within the short timeframes that grantees are typically given. As a result, R&D projects are often structured to bypass and only marginally involve African public agricultural organizations. The setting up of parallel channels to meet 3- to 5-year grant objectives is understandable in some respects, but it leads to a vicious cycle in which African public sector agencies are perceived as too weak to contribute productively to grant activities and outcomes, justifying future donor-funded grants that bypass them again.

TOWARD A NEW MODE OF PARTNERSHIP FOR AFRICAN AGRICULTURAL TRANSFORMATION

It is time to consider new modes of collaboration between strategic donor groups, African agricultural institutions and international partners. First, we must all acknowledge the long-term nature of institution strengthening. Focusing on demonstrating achievements over short time horizons encourages partners' programs to obtaining quick, unsustainable wins rather than tackle the fundamental problems impeding development. Within their own borders, most high-income countries around the world have come to appreciate the importance of public education, agricultural research, farm extension, and data generation and analysis units in contributing to their own economic transformations (Bonnen 1998; Eicher and Haggblade, 2013; Fan et al., 2009; Economist Intelligence Unit, 2008).

The task of transforming African agriculture should shift to provide and expect leadership from African experts and organizations, even as both international and local players remain important supporting partners. It is not an either/or issue but one of achieving the appropriate balance, with effective partnerships at the foundation (Omamo, 2003).

PARTNERSHIPS AT THE GLOBAL LEVEL

The Comprehensive African Agricultural Development Programme (CAADP), one of the pillars of NEPAD specifically dealing with agriculture, exemplifies how global partners are beginning to respond to African-led initiatives. Several donor and multilateral agencies explicitly support the CAADP process in their policy documents, including the United Kingdom's Department for International Development (DFID, 2005); the European Commission's Advancing African Agriculture Policy (2008); and the World Bank World Development Report (2008). The U.S. Administration and Congress have also acknowledged the need for, and acceptance of, country-led development initiatives. The U.S. government has also made clear commitments to demand-driven, country-led approaches, including CAADP, as a means to engaging development partners.

Another important area for further consideration in forging global partnerships revolves around the position of emerging donors in the global architecture of aid. Private foundations and philanthropists have increasingly become important sources of finance and investment in African development in areas of health and agriculture. China, Brazil and India have

also fast become reliable investment partners in Africa. The influence of these new partners on the African scene in respect of the collective efficacy of donor support to transform African agri-food systems needs further analysis and reflection.

And the stakes are high. If the countries of Africa can upgrade their agricultural institutions, they will not only raise living standards and expand employment opportunities but also address social problems borne of youth underemployment and poverty. Leaders need look no further than many Middle Eastern countries to see how a large population of unemployed and disaffected youth can coalesce into militant groups, potentially leading to widespread unrest, mass migration, the creation of fragile states, massive humanitarian costs, and military interventions. Such situations might have been moderated or avoided with earlier well-conceived development support. Many African countries currently enjoy rapid economic growth, but its sustainability is not assured, and many others lag far behind.

If the countries of Africa can upgrade their agricultural institutions, they will not only raise living standards and expand employment opportunities but also address social problems borne of youth underemployment and poverty.

RETHINKING THE ROLE OF NEPAD/CAADP IN STIMULATING CONTINENTAL AND GLOBAL PARTNERSHIPS

NEPAD/CAADP is a valuable platform in stimulating and championing orchestrating partnerships across African countries. To date, it has facilitated countries' understanding of each others' agricultural transformation strategies and enabled them to learn from each others' best practices. Before NEPAD/ CAADP, it was rare for East and Southern Africa countries to sit at the same table with West Africa except in more general AU meetings. Facilitating a process by which countries can speak with a unified voice has also enabled development partners to more easily define their entry points in providing technical or financial assistance. The challenge for NEPAD/CAADP is to raise the bar for partnerships between African and international governments, private sectors, universities, and other technical bodies.

CONCLUSIONS

Productivity growth of agri-food systems is at the heart of Africa's economic transformation, and investing in Africa's economic growth has been shown to be in the national interests of other countries around the world. Over the past 15 years, African governments that have effectively promoted farm productivity growth have enjoyed faster rates of poverty reduction, higher rates of labor productivity in the non-farm segments of the economy, and a more rapid exit of the labor force out of farming. Because the economies of most African countries still depend largely on the performance of agriculture, public investments in agricultural productivity growth will be an important component of an effective youth employment strategy. Young people between 15 and 34 years of age account for roughly 60 percent of Africa's labor force (Filmer and Fox, 2014). Often considered more of a burden than a benefit, Africa's youthful workforce could open up a wide range of economic opportunities in farming, in the downstream stages of agri-food systems and in the broader non-farm economy, with the right mix of policies and public investments toward agriculture.

The time has also arrived for greater commitment to the principles of empowering African organizations to be the drivers of their own transformation through partnerships that are ready to accept their priorities, subject to mutual commitment, mutual respect, and accountability.

African agri-food systems of the future will require upgraded and profoundly expanded skill sets relative to what local education and training systems are currently producing. Developing the skills and jobs to move the continent towards a productive twenty-first century agriculture will require transforming

the content and approach of African agricultural education, research, extension, and policy analysis institutions. And, now that ICTs are increasingly able to overcome problems of remoteness, the transformative power of ICTs is increasingly dependent on African research institutions' ability to generate appropriate information on best farm management practices for dissemination through ICTs. This requires a serious commitment to overcome decades of neglect in supporting localized, context-specific adaptive public agricultural research and extension programs.

The time has arrived for greater commitment—both local and international—to invest directly in long-term capacity building of African universities, agricultural training colleges, vocational schools, national crop science research organizations, extension systems, and policy analysis institutes. International private companies, universities, and NGOs have important but increasingly redefined roles that put African institutions in the lead. African governments will need to show greater financial commitment to building the capacity of public agricultural organizations in order to demonstrate that they have "skin in the game."

The time has also arrived for greater commitment to the principles of empowering African organizations to be the drivers of their own transformation through partnerships that are ready to accept their priorities, subject to mutual commitment, mutual respect, and accountability. To argue that African organizations and voices be put center stage implies that African governments also must live up to their commitments. Pan-African organizations such as the AFDB and AU can collect and publish annual metrics to transparently report on progress at country level. Regional network of national policy analysis units can play a critical role by serving as think tank to these regional and pan-African policy organizations, supported by international research and financial partners. By encouraging the "evidence-based voices" of African policy analysis institutions, the center of gravity of agricultural policy discussions can finally be shifted, as it should, to Africa.

TRANSFORMING LIVES

Building Bridges and Transforming Institutions form the foundation for the third pillar, Transforming Lives, which is the ultimate goal of the work that the Alliance seeks to support. AAP supports research and initiatives that will translate into real-world impact to improve African lives and livelihoods. This could be through innovating research-to-practice methodologies, improving dissemination of research outputs to practitioners, or connecting researchers to policymaking. We envision that the work the Alliance supports under this pillar will address complex and pressing challenges from climate change to youth empowerment to cultural preservation to improving agri-food systems. Transforming lives is at the very core of what the Alliance for African Partnership seeks to do.

PARTNERSHIP IN CLIMATE CHANGE ADAPTATION

Sosten Chiotha

INTRODUCTION

Scientific evidence indicates with increasing certainty that the current changes in the earth's climate system are happening as a result of human agency (Patberg and Stripple, 2007). These changes include a number of catastrophic or unusual weather events taking place at an accelerated pace, notably floods, drought and tropical storms (IPCC, 2007; Stern, 2007; Serdeczny, et al., 2016; Chiotha & Kamdonyo, 2017).

Within the developing world, Africa is the most vulnerable continent to climate change, where the impacts are exacerbated by not only the high levels of sensitivity of the social and ecological systems, but also due to the limited capacity of civil society, private sector and government actors to respond appropriately.

While these extreme weather events and shocks impact negatively on natural and human systems on all continents and across the oceans, developing countries are particularly vulnerable because they have some of the most climate-sensitive economies and significant populations living below the poverty line (IPCC, 2001 & 2014). Within the developing world, Africa is the most vulnerable continent to climate change, where the impacts are exacerbated by not only the high levels of sensitivity of the social and ecological systems, but also due to the limited capacity of civil society, private sector and government actors to respond appropriately (Brown, et al. 2012). It is also suggested that human-induced activities such as deforestation and land use change play a major role in exacerbating the impacts of climate change (Osbahr, 2007). Climate change is likely to amplify social inequalities because of the uneven distribution of its impacts and the limited coping capacity of poor communities (Osbahr, 2007; Paavola & Adger, 2002). In this respect, Ngigi and Birner (2013) have called for a fresh look at the design of climate change interventions to promote the kinds of qualities that would increase the likelihood of resilient outcomes at community level. Being a multi-scalar environmental and social problem affecting different sectors (Osbahr, 2007), realising successful adaptation strategies depends on the involvement and collaboration of many actors within and across policy domains and levels to foster functional interdependencies between the actors and their organisations (Godden et al., 2013). The AAP initiative is therefore timely for stimulating dialogue on partnerships that includes climate change in general and in particular responses through adaptation. This paper demonstrates the role of partnerships is inevitable and necessary in implementing climate change adaptation to transform lives.

WHAT IS ADAPTATION?

Weather extremes and shocks are expected to increase in frequency and intensity across the African continent as a result of climate change (IPCC, 2007). For example, between 1970 and 2006, Malawi experienced 40 weather-related disasters, and 16 of these occurred after 1990 (Osbahr, 2007). While discussions have been ongoing at the global level for action to limit greenhouse gas emissions through mitigation, the process is characterised by slow negotiation processes due to a multiplicity of actors, including not only state actors with different interests, but also increasingly diverse non-state actors (Biermann et al., 2007). A further complication is that the change in the climate system is already primed to continue on the path of adverse effects already taking place or in the pipeline even if global greenhouse gas emissions were to stabilize, or even decrease (UNEP, 2014). Hence the failure to mitigate greenhouse gas emissions to an acceptable level is one reason why adaptation is of great importance (IPCC, 2014) requiring urgent immediate attention.

Adaptation is the process through which societies increase their ability to cope with an uncertain future, which involves taking appropriate action and making the adjustments and changes to reduce the negative impacts of climate change (UNFCCC, 2007). Societies have a long history of adapting to the impacts of climate and weather through a range of different social networks (Thorp et al., 2005) and practices such as crop diversification, irrigation,

water management, disaster risk management and insurance (UNFCCC, 2007). However, climate change has magnified the risks and stretched the scope of the traditional social capital, rendering it less effective to cope with the extreme impacts (Mogues, 2011). The result has raised the stakes, demanding new strategies and urgent action for adaptation to manage the consequences of changed climate (Government of Malawi, 2006; United Nations, 2016).

WHY PARTNERSHIP?

As indicated above, elaborate partnerships at the global level focused in the last 50 years on building consensus around a differentiated roadmap for mitigating greenhouse gas emissions (Mathur & Mohar, 2015). This historical bias of global approaches in favour of mitigation may not be sufficiently flexible for national or subnational conditions (Tanner & Allouche, 2011). There is, therefore, a need for advocacy for increased attention towards adaptation, which, unlike mitigation, targets the most vulnerable households at a national down to community level (Mathur & Mohar, 2015). The partnerships involved can be from different sectors or from different disciplines depending on the nature of the adaptation programmes. For example, case studies three and four were aligned towards capacity building and research. Hence the partnerships were from academia and research centers with relevant multidisciplinary expertise and skills. On the other hand, case study five involved implementation of interventions that ranged from enhancing production in agriculture to marketing (including value addition) of farmer produce. This type of programme required multisector partnership comprising state actors, academia, non-governmental organizations, and the private sector. Whatever type of partnerships, they are more effective at advocacy essentially because of enhanced credibility at generating evidence and making the link between policy and action to develop appropriate solutions. Further, partnerships command greater respect to attract the attention of decision makers and those that determine negotiating positions.

CASE STUDIES

This section highlights some of the partnerships on adaptation operating at international, national and local community levels. Five case studies are presented.

Case Study #1

The first case study is about the Southern Voices on Adaptation (SVA), a global-level partnership on adaptation established to help fill in the gap created by limited attention to adaptation at the global level. The SVA has brought civil society networks from Africa, Latin America and Asia under one platform to develop 10 Joint Principles on Adaptation (Southern Voices on Adaptation, 2014). The objectives of SVA are to influence policy, strengthen capacity (of government and civil society) and promote dialogue



A field of dried crops due to drought in Monduli District, Tanzania. Photo: Dwight Seaggreen

between government and civil society. Through the Joint Principles for Adaptation (JPA), the network strives to ensure that adaptation plans, policies and programmes are pro-poor and pro-vulnerable, and cater to the needs for the most vulnerable to climate change (Southern Voices on Adaptation, 2014). SVA is funded and coordinated by CARE in Denmark. The majority of SV partners have found the JPA to be a valuable resource for their work in promoting climate change adaptation that is effective, equitable and inclusive. In addition, SVA contributed to the national dialogue in preparation for CoP (Conference of Parties) 21 in Paris and drawing the attention of delegates and observers during CoP 21 through an adaptation communication on the need mobilizing sufficient finance flows for climate-resilient development among other issues. AAP can leverage the potential that exists among SVA partners.

Case Study #2

The second case study is the pan-African initiative called EBAFOSA (Ecosystem Based Adaptation for Food Security Assembly), officially launched in Nairobi in July 2015 at a meeting attended by at least 1,200 delegates from different sectors throughout Africa (IISD, 2015). The UNEP, FAO, and AU played a critical role in convening the stakeholder forum that eventually led to the formation of EBAFOSA. The initiative has been endorsed by the African Ministerial Conference on Environment (AMCEN) and at least 40 African countries have already established national branches. The Malawi Branch of EBAFOSA was launched on June 5, 2016 by the Malawian president, Prof. Peter Mutharika, to underscore the significance placed on climate change in general and adaptation in particular. EBAFOSA is aligned to the Africa Union Agenda 2063 strategic framework for optimizing use of Africa's natural resources aimed at achieving socioeconomic transformation of the region. There is an opportunity for AAP to align with EBAFOSA through many of its pillars at a pan-African level and through national branches. One such pillar is mainstreaming ecosystem based adaptation (EBA) into the education system beginning with the primary levels to tertiary levels, and the role of ICT in EBA scaling up. The other pillar prioritizes research which incorporates indigenous knowledge to address development gaps and to inform policy and action in adaptation.

Case Study #3

The third case study is about a three-year (2011-2014) research and capacity-building project involving collaboration between academic institutions from the U.S. (Michigan State University and Lincoln University) and Malawi (University of Malawi and Lilongwe University of Agriculture and Natural

Resources). The project was entitled Agro Ecosystem Services (AgESS): Linking science to action in Malawi and the region (USAID, 2014). The partnership was established to strengthen each of the partner institutions in the area of AgESS by enabling these institutions to enhance faculty development and respond to research, curricula, and outreach needs as identified by the implementing institutions through consultations with key stakeholders. The key stakeholders included the Malawi government, the private sector, and non-governmental organizations. The scope of the project is relevant to adaptation by addressing agricultural, environment, development challenges through research, curricular reform and outreach. Each partner brought key elements to the project, provided the opportunity to numerous researchers to interact across institutions, sectors, and disciplines, and made significant impact on institutional transformation to address AgESS. AAP needs to build on investments of this nature and to harness the knowledge and skills as it carves out future partnerships. The project was funded under a USAID higher education capacity-building grant.

Case Study #4

The fourth case study is similar to the previous in being a research project in the area of agriculture and ecosystems. The project was called ASSETS (Attaining Sustainable Services from Ecosystems through Trade-off Scenarios) coordinated by the University of Southampton and implemented in Malawi, Peru and Colombia (espa-assets.org/ collaborators/united-kingdom). The project involved nine partner institutions representing academia and research centres from Malawi, the United Kingdom, Spain, the U.S., and Latin America. The project addressed drivers, pressures, and linkages between food security, nutritional health, and ecosystem services among other issues. The methodology involved a large household survey which included anthropometric measurements (of young children and their mothers) and food diaries (at individual and household level). These data were complemented and contextualised by a range of PRA exercises carried out in the same communities. Biophysical data was also collected and relied on secondary data on land use from national and global sources level (espaassets.org/collaborators/united-kingdom). This type of project is useful in demonstrating the complex linkages between environmental degradation, food insecurity and poverty in a way that should inform holistic approach to adaptation projects. Useful lessons for AAP would include multicounty project sites, and a consortium demonstrating multidisciplinarity and interdisciplinarity. The Project (2012-2016) was funded by Ecosystem for Poverty Alleviation programme in the United Kingdom.

Case Study #5

The fifth case study is the Lake Chilwa Basin Climate Change Adaptation Programme (LCBCCAP) implemented from 2010 to 2017 to secure the livelihoods of 1.5 million people living in the Lake Chilwa Basin districts of Machinga, Phalombe and Zomba in Malawi. The choice of the Lake Chilwa basin was influenced by previous reports (Njaya et al., 1996) demonstrating that the basin population lives under constant threat of extreme and highly variable weather while eking out a living from a declining natural resource base (Chiotha et al., 2017). The basin has international significance, declared a Ramsar site in 1997 and Man and Biosphere (MAB) Reserve in 2000. In its implementation, LCBCCAP used the Ecosystem Approach (Secretariat of the Convention on Biological Diversity, 2004). The interventions were implemented in 10 hotspots, and, consistent with EA principles, these hotspots were selected based on their vulnerability status, with full participation and consent of all relevant stakeholders. This project was unique in having both a research and a development agenda. For example, while implementing conservation agriculture, the project quantified the improvements to soil properties, not just the area under conservation agriculture or the number of farmers who had adopted the technology.

Because most of the livelihoods of the target communities in the basin are based on agriculture and fishery, both of which are climate sensitive, the project enhanced the capacity for participatory natural resource monitoring to inform practical decision making from grassroots to policy levels. The communities, for example, were trained to record data related to weather, river discharge, lake water levels, fishery, and wetland bird populations (Chiotha et al., 2017). With an ambitious social change agenda, targeting 1.5 million people across three districts and ten hotspots, the Programme developed a robust innovative communication and outreach strategy, such as interpersonal communication and mass media communication (Chiotha et al., 2017). The project was unique in engaging the private sector such as agribusiness entities to support farmers to accessing better markets for their produce and the banking sector to provide mobile banking service to reach the most remote communities. LCBCCAP was coordinated by LEAD SEA and implemented in collaboration with Chancellor College (University of Malawi), Forestry Research Institute of Malawi, and WorldFish with funding from the Royal Norwegian Embassy.

While interest in adaptation has significantly improved in the past 20 years, there is need for more innovative partnership to really bring about significant change in transforming the lives of vulnerable communities.

CONCLUSION

This essay has argued that Africa is bearing the brunt of climate change and the poor communities are the most vulnerable. While the African communities have evolved resilience to shocks (Kahinda et al., 2007), the impact of climate change has pushed the traditional coping mechanism close to the tipping point. It is, therefore, imperative that adaptation should be given priority for investment because adaptation is value for money. For example, according to the IPCC (2007), the benefits of strong and early action on adaptation far outweigh the economic costs of inaction. The estimated cost of inaction is equivalent to between 5% and 20% of global gross domestic product (GDP) per year, whilst the costs of adapting to the worst impacts are around 1% of global GDP per year (IPCC, 2007). Partnerships are necessary in advocating for adaptation. This essay has shared lessons from five case studies on climate change adaptation which cover capacity building, research and development, outreach and advocacy which are within the scope of AAP. While interest in adaptation has significantly improved in the past 20 years (Glick et al., 2011; Mellmann, 2015) there is need for more innovative partnership to really bring about significant change in transforming the lives of vulnerable communities. The platform created by AAP is a welcome development and the case studies shared should provide an opportunity for reflection on opportunities address gaps in partnerships on climate adaptation and for scaling up and scaling out best practice. As Munang et al. (2013) have argued, Africa must embrace a paradigm shift to effectively tackle climate change and AAP is that innovative approach to complement this paradigm shift.

AFRICAN YOUTH:

Building on Values, Counting on Partnerships

Chinwe Effiong

OVERVIEW

At present, 1.8 billion of the world's population are youth between the ages of 10 and 24. Eighty-seven percent of these young people live in less developed countries—62 percent in Asia and 17 percent in Africa. With approximately 120 million young people joining the global labor market each year and more than 73 million of them consistently documented as un/underemployed, the enormity of the impending youth demographic explosion cannot be overestimated.

Sub-Saharan Africa has the highest youth growth rate of any region in the world. According to the IMF's April 2015 Regional Economic Outlook for Sub-Saharan Africa, "over the next 20 years, as both infant mortality and fertility rates decline, sub-Saharan Africa will become the main source of new entrants into the global labor force." In fact, by 2035, the number of Africans joining the working age population will exceed that from the rest of the world combined.

What is the solution to this seemingly intractable problem? Education, skills development, mentoring,

entrepreneurship? It will require all of these and much more! The effective development of young people in Africa, irrespective of their sub-region, religion, and socioeconomic realities involves more than just formal education or even skills development. It requires a concerted and deliberate effort by individuals and institutions who are committed to the success of these young people and who are willing to devote time, resources, and energy to ensure that they are well equipped for the future. It requires a recognition that African youth are not a homogeneous group. Even within a single geographic location, you will find young people along a wide-ranging continuum of age, experience, education, interests, capabilities and aspirations. There is therefore no single panacea for all things African or all things youth, and no alternative to long-term commitment and engagement to address the entire spectrum of their developmental needs. There are, however, two things that I believe need to be in place before any serious conversation about youth development in Africa or anywhere else can take place, and those are core values and committed stakeholders.



The 2015 cohort of The MasterCard Foundation Scholars at MSU. Photo: MSU

BUILDING ON CORE VALUES

Many youth-serving organizations on the continent are struggling to mobilize, motivate and engage youth long enough to measure impact. These youth have been variously described as transient, uncommitted, truant, lacking focus, or unserious. These depictions are inaccurate and unfortunate, and designed to place the blame for our failure to deliver successful initiatives on the young people that we are supposed to be serving. The irony is these are the same young people we have advocated for years should be taught not only to read and write, but to ask questions and solve problems. We have told them or at least shown them the value of challenging the status quo and requesting—in fact demanding explanations. We have encouraged them to aspire and to dream and then we expect them to settle for mediocrity. There is an inherent contradiction here.

African youth believe that poverty and discrimination should be outdated. They want to be assessed by their performance and not their gender, financial status, or the color of their skin. They want to conserve energy and maintain the ecological balance of the Earth's natural habitats. They want to, and have the right to, believe in a future that is better than the world that we have created for them. When we engage with them, what values are we promoting? Order and stability, an unquestioning respect for authority, protection of the rights of the privileged, acceptance of a biased historical narrative, or acceptance of an educational system that treats them like automated robots? Unfortunately, members of this generation, even those we think are too illiterate or marginalized to know the difference, do know the difference and are demanding explanations. We need to reevaluate the assumptions and values that drive the work that we do with and for them and align our efforts with the very laudable values they espouse.

Having said that, no matter how well aligned our values are with the goals and aspirations of African youth, they are only as good as our ability to create a community of "believers" who share these values and are willing to govern themselves by them. At the end of the day, this is what true partnership is: a community of people with mutual respect, shared values and a common vision for the future. Anyone who has ever belonged to a community understands how powerful they can be. It does not matter if they are social, cultural, geographic, religious, or professional aggregations, communities are influential and critical to the way we identify ourselves and perceive the world around us. We all belong to at least one community and in many instances, several. These communities shape who we are and often define how we respond to changes

in our world. The young people we serve in Africa are no different. What kinds of communities are we creating around them?

COUNTING ON PARTNERSHIPS

In order to experience transformational change among African youth, we must find a way to harness this power of community—the power of partnership. A great example of how partnerships are being used as a tool for change is the community created by The MasterCard Foundation through its Scholars Program. This network of 25 partners from Africa, North America, Europe, the Middle East, and South America are committed to the belief, that young people from Africa, irrespective of their ethnicity, language or socioeconomic background, if provided with quality education and comprehensive wraparound services and a support network can and will excel. The MasterCard Foundation partners, driven by this belief, make it a point to traverse the continent in search of the most deserving, even if hard to reach, young people to offer them an opportunity to be part of this nurturing community of Scholars and mentors. The results have been phenomenal! Five years into the 10-year initiative, the partnership has already transformed the lives of more than 20,000 young men and women who have benefited from this program.

In order to experience transformational change among African youth, we must find a way to harness this power of community—the power of partnership.

Michigan State University is one of the 25 institutions that make up the MasterCard Foundation Scholars community. Because of this partnership, MSU has identified and trained a cohort of young Africans who are committed to addressing development challenges in their local communities and who continue to promote the values of equity, diversity, integrity, hard work, volunteerism and servant leadership that they have acquired as members of the MasterCard Foundation Scholars community. As Adam Fletcher of the Free Child Project (2016) stated so succinctly, "Youth empowerment is not a process, a product, or an outcome. It comes from the individual attitudes, shared cultures, and everyday structures that children and youth share with adults throughout society. When youth empowerment happens, young people gain the ability, authority and agency they need to visualize, plan, implement, critique and reimagine the realities around them."

GENERATING INCOME AND HOPE IN AFRICA WITH MUSHROOMS

Thelma Awori

I first heard exciting stories about mushrooms and their potential to change lives and economies from Gunter Pauli. I was then deputy director of the Policy Bureau in UNDP, and Anders Wijkman, my boss at the time, introduced us and told me to see how we could incorporate some of his ideas into our work. Gunter's ideas were exhilarating. They were like a dream come true to concretize my own hope that Africa would be able to use its immense resources for its own development by connecting to the energies of its people. Gunter was, and still is, a master networker. He knew how to find and

A woman displays truffles worth approximately N\$100 for the Mushroom Node at the University of Namibia. Photo: Nailoke Pauline Kadhila-Muandingi

bring together people and knowledge from so many parts of the world and put it all together for great use. We talked about the Chinese technology of curing bamboo to seal it from insects making it usable for construction of houses, even doublestoried ones. We went to Colombia in 1999 to see some of these houses and to hold a conference with coffee farmers and talk about using other parts of the coffee plant beyond just the bean. The coffee waste seemed promising for growing mushrooms. Many of these ideas were unconventional at the time and our technical department was not encouraging of the partnership I wanted to forge with the work of ZERI (Zero Emissions Research and Initiative), the organization Gunter had founded when he worked at the United Nations University in 1994 as a think tank in preparation for the Kyoto Protocol. I went against their best advice and am so glad I did.

Of all the ideas proposed by ZERI, I was most fascinated by the potential of mushrooms-their nutritional and medicinal value, their capacity to address the issues of food security, employment, and income creation for the disadvantaged, and to improve agricultural practices. This was especially with regard to the edibility of many mushrooms, their high nutritive values in terms of their high content of protein, vitamins, inorganic minerals, and also their high medicinal value, by virtue of their unique polysaccharides and other bioactive substances. Also importantly, I was intrigued by the fact that many edible and medicinal mushrooms can be farmed by using common agricultural crop residues generated in large quantities by Africa's farming communities as substrates, and that the technologies involved in mushroom farming can be assimilated by Africa's rural and peri-urban people.

While looking at this potential of farming mushrooms in Latin America, we found that there were African scientists already working on the idea, in particular an eminent African scientist, Professor Keto Mshigeni, who was the founding UNESCO/UNU ZERI Africa Chair and, at the time, pro-vice chancellor for academic affairs and research at the University of Namibia (UNAM). Later as head of the Africa Bureau of UNDP, I had more latitude

and money which enabled me to give support to a strong partnership with ZERI. When asked to write this piece on translating research into practice and transforming lives, I thought of looking at what might have resulted from the work of these outstanding scientists working together in Africa and across the globe to create knowledge that would bring communities into managing their own lives. After about 20 years, it is truly inspiring to see what resulted from the research on mushrooms and its impact on communities, particularly in Southern and Eastern Africa but also with hundreds of production centers in Ghana and Benin.

ZERI AND THE ZERI PHILOSOPHY

The new lifestyle of the 21st century creates large amounts of waste from industries, from businesses and from homes. Instead of allowing all this waste to become a problem, ZERI employs bright ideas based on solid science from brilliant minds to turn waste and readily available yet unused resources into solutions for some of the pressing needs of our communities such as livelihoods, environmental regeneration, food security, shelter, health and energy. The ZERI philosophy emphasizes zero waste (or total productivity) based on the premise that the waste of one kingdom¹ can be a nutrient for another kingdom. Scientific research is able to discover how the systems integrate to feed on each other and create life and wholeness naturally. Nature in general, and ecosystems in particular, provide the inspiration because every piece always contributes to the best of its ability, and nothing is left unused.

Mushroom farming is a great example of how this philosophy works. Mushrooms can be grown on a variety of agro and forestry waste such as sugar cane, millet, cotton seed waste, dried grass, dried water hyacinth, and coffee grounds (at the farm and postconsumer) to name only a few. In this way, mushroom farming can contribute to restoring environmental health. Scientists are still studying how certain species of mushrooms such as the Ganoderma lucidum (popularly known as reishi) and Lentinufa edodus (or shiitake) especially in traditional Chinese medicine since these are known for their immune system modulating capacity. Mushrooms are a good source of protein and many species compete with meat, and they have all of the essential amino acids and many trace minerals to help build up a body which is malnourished.

An important part of the ZERI philosophy is making research results practical, useful, and freely

1 There are five kingdoms: monera (bacteria), protists (algae, paramecium and amoeba), fungi, plant, and animal.

available. Research findings on types of substrates and conditions that are conducive to growing mushrooms have brought income and health to millions in Africa. However, even when scientific evidence is available, policymakers, for a variety of reasons, can often become hesitant to put into practice recommendations proposed by scientists.

A case in point is the research done on using water hyacinth (*Eichhornia crassipes*), which was clogging rivers, dams, and lakes as a substrate for mushroom farming. Prof. Keto Mshigeni, then based at the University of Namibia (UNAM), had begun to study this possibility as early as 1994 (Mishigeni, 1995). Research on the use of water hyacinth as a substrate proved that it produces an impressively higher yield than on other substrates (Kivaisi et al., 2003). This rate of productivity would greatly increase the income of a rural family.

Additionally, no animal eats water hyacinth in its natural state. However, growing mushrooms on water hyacinth digests the cellulose of the plant in such a way that it becomes edible by animals (Pauli, 2015). Thus the capacity to see the natural process of integration that is evident in nature can direct us to solutions to major problems such as the water hyacinth in our waterways. Despite this potential for food security and nutrition, policy makers in Zimbabwe prohibited the use of the water hyacinth as a mushroom substrate for fear that the population would further proliferate the plant in all possible water bodies.

MUSHROOM RESEARCH IN SOUTHERN AFRICA

After some deliberations at the University of Namibia, it was deemed appropriate that Africa University in Zimbabwe become the first mushroom hub in Southern Africa based on the work of Margaret Tagwira, its senior laboratory technician. After receiving advanced training in China from Prof. Dr. Chang Shuting, Margaret Tagwira set up one of the first mushroom spawn facilities in Africa that could develop spawn for both temperate and tropical mushrooms. Africa is home to 25 percent of the world's biodiversity of mushrooms, and yet nearly all farmed species are non-native. She also carried out a detailed mushroom survey in two Zimbabwean districts and was one of the researchers in the water hyacinth project mentioned above. Her research reports are contained in several published articles (Twagira 1996; 1999; Ngezimana et al., 2008).

What is most outstanding about this work is the passion that Margaret Tagwira put into getting mushroom growing technology into the hands of the most disadvantaged: HIV/AIDS orphans, many

of whom had to take on full family responsibilities after the death of both parents. Based on the ZERI principle of making research useful, Margaret created a network of villages around Mutare, near Africa University, where she began by training 15 teenagers. The girls were able to grow mushrooms and even train villagers in the techniques. She also enrolled them in a correspondence school so as to get a high school certificate. Once all this training was completed, unfortunately most of the girls were compelled into marriage by relatives because they had no parents to further their education. Their capacity to produce food turned them into worthy providers of a dowry as high as 20 cows.

However, one of the girls, Chido Govera, who was orphaned at the age of 7, abused by her family, and caretaker of her blind grandmother and younger brother, was strong in her determination to further the work of putting mushrooms in the hands of disadvantaged communities. Gunter Pauli became her surrogate father, and Margaret and her husband Fanuel opened their home to protect her from social pressures to marry and to guide her in her ambition. Coming to work with Margaret Tagwira at the tender age of 12 had rescued her from scavenging agrowaste to get a basic meal. Today Chido is world renowned for her work in training people around the globe in mushroom technology.² Her successes are manifested in Zimbabwe with dozens of production units, as well as in several African countries especially Ghana (in cooperation with UNDP), Europe (Belgium, Netherlands, France), Asia (especially India), Latin America (Colombia, Argentina and Mexico) and even as far away as among the native aborigines of Australia.

MUSHROOM NODE IN NAMIBIA

Bolstered by the success of this work in Zimbabwe and understanding the potential of mushroom farming to address the issue of food security and livelihood generation, ZERI created a ZERI Council of African Scientists. This group of scientists, with technical assistance of Prof. S. T. Chang of the Chinese University of Hong Kong, included members of the NEPAD Councils for Scientific and Industrial Research (CISR). These councils formed part of the structures of the African Union for supporting STEM in Africa. Prof. Keto Mshigeni was elected vice-chair of the ZERI Scientific Council which included Prof. Athanasius Mphuru, then the dean of the faculty of agriculture at Africa University in Mutare, Zimbabwe, and Prof. Dr. Dawid Abate from the College of Natural Science at the University of Addis Ababa (Ethiopia). Mshigeni immediately set up a facility

2 Read the story of Chido on her website, www.thefutureofhope.org/content/chido-govera.

at the University of Namibia to promote research in mushroom farming. In the reorganization of the NEPAD CISRs, this facility became the Mushroom Node of the restructured CISR network in Southern Africa known as SANBio.

The Southern Africa Network for Biosciences (SANBio) was established in 2005 under the New Partnership for Africa's Development (NEPAD). It is a shared biosciences research, development and innovation platform for working collaboratively to address some of Southern Africa's key biosciences issues in health, nutrition and health-related intervention areas such as agriculture and environment. The platform provides access to world-class laboratories for African and international scientists conducting research on African biosciences challenges. Similar networks also exist in other African Union regional groupings.³

Today the Mushroom Node at UNAM is led by a young biologist, Pauline Kadhila-Muandingi, who is doing her doctorate with a focus on Namibian indigenous mushrooms, especially those of medicinal importance. She is also working on the possibility of domesticating the *Termitomyces* mushroom which is a delicacy in Namibia. It is impressive the role women scientists are playing in this venture where women farmers are the main beneficiaries. In 2015/16, Ms. Isabella Ueitele was recognized for her active role in mushroom cultivation and research. For this, she was awarded the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) Top Upcoming Researcher award as outstanding champion for agricultural transformation in Africa.⁴

As Joint Founding UNESCO/UNU ZERI Chair, based at the University of Namibia, Prof. Mshigeni conceived a project idea to promote mushroom research and farming in all of Africa. He was fortunate to secure funding from the UNDP Africa Bureau to implement this work in eight countries across the continent. The project not only created a network of mycologists in these countries, but developed training materials (Mshigeni & Chang, 2013) and trained thousands of people to cultivate mushrooms and thereby contributed to food security and income generation. In Uganda in particular, mushroom cultivation is vibrant with thousands of small growers forming themselves into associations for export and mutual support. Fresh mushrooms can be found on the shelves of most supermarkets. The same is happening in Kenya, Tanzania, and Burundi under the auspices of BeCA, the East African regional

³ The East African network is BecA, based at ILRI.

⁴ blog.ruforum.org/2015/09/02/ruforum-celebrates-outstanding-champions-the-impressa-awards/#more-1491

network of biosciences.⁵ Upon his retirement from the University of Namibia, Prof. Mshigeni returned to his native country Tanzania as vice chancellor of the Hubert Kairuki Memorial University. There he also set up a mushroom research facility focusing on edible and medicinal mushrooms and has mentored many young scientists who are interested in this field.

CONCLUSION

As for Gunter Pauli, I never tire of reading his works and the wealth of ideas that they hold for development of our planet. His courage to go against the tide of conventional thinking is creating a new normal in science and research. Today a new generation like Chido (who at the young age of 31 already has 20 years of experience) is convinced that thanks to this visionary approach up to 25 percent of nutrition in Africa can come from mushrooms, and generate millions of jobs, building on the rediscovery of biodiversity.

The scientists involved in this process made the communities an extension of their laboratories. This should be recommended if research is to be used to transform lives, it must be part of the lived experiences of people. These scientists did research on spawn production in their laboratories but also taught willing learners how to do the same under simple conditions. They ran workshops and produced simple training materials in the local languages. They worked with farmers to build simple and affordable houses for growing the mushrooms and experimented with the farmers on the suitable substrates for each environmental condition. They did all this the ZERI way. Today mushroom growers feel they own the mushroom process. Women have found it especially suited to their work schedule and

 $5\ hub. a fricabiosciences. org/activities/research/309-wild-edible-mush-rooms-diversifying-nutrition-and-increasing-income-for-women$

There is still hope for Africa only if we see the value of supporting research that can feed people as well as put them to work.

location given that it can be done in their homesteads. It has been a win-win for all involved. What is missing now is strategic support form governments at all levels to build on this program and expand the number of people making a livelihood and getting food security from mushrooms. The city of Qingyuan in Guangdong Province puts hundreds of thousands of people to work on mushroom production. In Singapore their emphasis has been on medicinal mushrooms, through construction of a medicinal mushroom processing unit that is used by various companies, thereby supporting the development of industries based on medicinal mushroom production (Pauli, 2015).

There is still hope for Africa only if we see the value of supporting research that can feed people as well as put them to work. The NEPAD hubs of scientists exist and the universities are training researchers on mushrooms; what is needed now is support to grow this work so that it will mushroom all over the continent. The time is ripe for harvest.

*Thelma Awori thanks Gunter Pauli and Keto Mshigeni for their comments on this article.

CONCLUSION & FUTURE DIRECTIONS

Jamie Monson and Thomas S. Jayne

The stated purpose of the Alliance for African Partnership is to promote sustainable, effective, equitable partnerships between African organizations. MSU. and other international organizations to address mutually defined challenges facing Africa and the world. Yet as we have learned from the essays in this volume, partnership among African and international institutions is not only a popular idea in development circles today, but it has also been in practice—including at MSU—since the mid-20th century (Jamison, Monson & Wiley, Mlama). So why should we embrace partnership now through this Alliance? Why is a new approach to partnership needed? And what are the necessary characteristics of this approach that will differentiate the AAP from other partnership initiatives past and present?

One answer, as explained in our introduction, is that the landscape for partnership has changed. Partner institutions based in Africa are now home to a critical mass of highly trained experts who not only are respected scholars in their fields but also have knowledge of local cultures and global power relations. Our approach to partnership as an ecosystem must fully engage with and be led by African professionals—something that did not always take place in the past.

Second, although partnership initiatives in the past may have been well intentioned, they have frequently floundered from the start due to unexamined power and resource differentials. Old paradigms had a tendency to reproduce uneven power dynamics and to export donor agendas; this led to forms of "scientific colonialism" and to the privileging of external cultural values rather than African cultures and identities (Jamison, Mlama).

Third, even when these inequalities have been identified, and appropriate guidelines for ethical

engagement thoughtfully articulated, in actual practice old habits have been slow to change. As Jamison and Minde point out, more powerful actors may continue to retain control as they play the role of the "helper" in many partnership relationships. Thus partnership in and of itself is not a panacea for bringing about the transformation that is needed in our institutions, rather it is the *nature and practice* of partnership that holds the key.

We must ask ourselves: if ethical principles and guidelines are not the complete solution, then what must the Alliance for African Partnership do differently in order to succeed? How will we know when we have achieved our goals and carried out our cooperative vision?

Isaac Minde provides an answer when he counsels us that partnerships need to be nurtured—and that nurturing occurs when we are self-reflective, even self-critical. We must be willing to bring an open-minded attitude that will allow for mutual understanding and true cooperation. The cultivation of these relationships will take time, patience, commitment and determination. To create genuine sustainability for our efforts, we must start from the beginning with this nurturing approach and carry it through all the way to impact.

Our notion of partnership as taking place within an ecosystem also allows us to recognize that externalities create the contexts within which our efforts take place—thus shaping what is needed in terms of resources, approaches and also our modes of engagement. For example, our history at MSU shows that when we listened and responded to the needs of our African partners at different points in time, we could be most effective. In the early years of independence, we worked alongside new nations like Nigeria to co-develop the institutions of higher

learning that could meet their needs for freedom and development. Many of the graduates of the programs from that era are MSU's leadership partners in Africa today. Then in the 1970s and 1980s when southern Africa was still experiencing the regional impact of oppressive white-settler and colonial-ruled states, MSU responded through activism and also by providing support to refugee scholars in the form of graduate fellowships. Today's externalities, as Sosten Chiotha shows, include challenging forces such as global climate change that must be addressed through new cooperative relationships.

Not only do externalities like climate change shape the partnership ecosystem, but poorly functioning partnerships can have broader impacts. These may not only thwart their own success but can also reverberate to other sectors of society or to the natural environment. Impacts on livelihoods in these cases may not be positive, and our response to such situations once again requires a determined willingness to be reflectively self-critical. When our experiences with such "lessons learned" (and not

only with the happier stories of "best practices") are shared productively with others, then they also have potential to be transformational and to generate beneficial outcomes going forward.

Our new Alliance for African Partnership seeks to build the relationships and networks that will take us into the remainder of the 21st century. These will not only be North-South ventures but will also promote mobility across African institutions into South-South circuits of innovation, personnel, students, and resources (Osiru). This will enable the formation of new ecosystems for development: they must be flexible, changing with different contexts and scales, adapting to new historical moments. At the same time, partnerships must be cultivated and nurtured with intention, through a process of self-reflection that can lead to positive correction and improvement (Minde). And real solutions—whether in climate change, agrifood policy, artistic exchanges or mushrooms—can inspire us collectively and move us to continue to work together for the next generations.



Recycled packaging table mat, Zulu, South Africa. MSU Museum Collections. Photo: MSU

REFERENCES

Adriansen, H. K., Madsen, L. M., & Jensen, S. (2015). *Higher Education and Capacity Building in Africa: The Geography and Power of Knowledge Under Changing Conditions*. Routledge.

AGRA. (2016). *Africa Agriculture Status Report 2016. Progress towards Agricultural Transformation in Africa*. Nairobi, Kenya: Alliance for a Green Revolution in Africa.

Agricultural Science and Technology Indicators (ASTI) database. (n.d.). Retrieved May 28, 2017, from https://www.asti.cgiar.org/

Allen, A., Howard, J., Kondo, J., Jamison, A., Jayne, T. S., Syder, J., ... Yeboah, K. F. (2016). *Agrifood Youth Employment and Engagement Study (AgYEES)*. The MasterCard Foundation.

Appalachian Family Innovations. (2003). Six Principles of Partnerships. In *Partners in change: A new perspective on child protective services (curriculum)*. Morganton, NC: Appalachian State University.

Argyris, C. (2004). *Reasons for Rationalization: The Limits to Organizational Knowledge*. Oxford University Press.

Biermann, F., Pattberg, P., Chan, M.-S., & Mert, A. (2007). *Partnerships for Sustainable Development: An Appraisal Framework* (Global Governance Working Paper No. 31). Amsterdam: The Global Governance Project.

Binka, F. (2005). Editorial: North–South research collaborations: a move towards a true partnership? *Tropical Medicine & International Health*, *10*(3), 207–209.

Bonnen, J. T. (1998). Agricultural Development: Transforming Human Capital, Technology, and Institutions. In C. K. Eicher & J. M. Staatz (Eds.), *International Agricultural Development 3rd edition*. Baltimore, MD: Johns Hopkins.

Bradley, M. (2017). Whose agenda? Power, policies, and priorities in North-South research partnerships. In L. J. A. Mougeot (Ed.), *Putting Knowledge to Work: Collaborating, influencing and learning for international development* (pp. 37–69). Warwickshire, UK: Practical Action Publising, Ltd.

Chernikova, E. (2017). Negotiating research collaboration between universities and other civil society organizations in Canada. In L. J. A. Mougeot (Ed.), *Putting Knowledge to Work: Collaborating, influencing and learning for international development*. Warwickshire, UK: Practical Action Publising, Ltd.

Chiotha, S., & Kamdonyo, D. (2017). Tornadoes affecting Malawi? In *Proceedings of the first stakeholders workshop on enhancing early warning systems in Malawi: 15-18*. Zomba, Malawi: LEAD SEA Publications.

Chiotha, S., Likongwe, P., Likoswe, M., Sagona, W., Mwanza, P., Mphepo, G., ... Chijere, A. (n.d.). *The Lake Chilwa Basin Climate Change Adaptation Programme Impact 2010-2017*. Zomba, Malawi: LEAD SEA publications.

Covey, S. (2011). The 3rd Alternative: Solving Life's Most Difficult Problems. New York, NY: Free Press.

Dweck, C. (2006). The New Psychology of Success. New York, NY: Random House Publishing Group.

Economist Intelligence Unit. (2008). *Lifting African and Asian Farmers Out of Poverty: Assessing the Investment Needs*. New York, NY: Bill and Melinda Gates Foundation.

Eicher, C. K., & Haggblade, S. (2013). *The Evolution of Agricultural Education and Training: Global Insights of Relevance for Africa* (MAFS Working Paper No. 4). The Modernizing African Food Systems (MAFS) Consortium. Retrieved from http://www.mafs-africa.org/uploads/files/mafs_working_paper_4_-evolution_of-agricultural_education.pdf

European Civil Society Organizations. (2008). 2008 Monitoring Report of European Commission's proposal for Advancing African Agriculture (AAA). Retrieved from http://www.europafrica.info/en/documenti/advancing-african-agriculture-2

Fan, S., Gulati, A., & Thorat, S. (2009). Investment, Subsidies, and Pro-Poor Growth in Rural India. *Agricultural Economics*, *39*(2), 163–170.

Faul, M. V. (2016). Networks and Power: Why Networks are Hierarchical Not Flat and What Can Be Done About It. *Global Policy*, 7(2), 185–197.

Filmer, D., & Fox, L. (2014). *Youth Employment in Sub-Saharan Africa* (African Development Series). Washington, D.C.: World Bank.

Fletcher, A. (2016). Youth Empowerment. Retrieved June 13, 2017, from https://freechild.org/youth-empowerment/

Friedman, T. L. (2008). *Hot, flat, and crowded: Why we need a green revolution—and how it can renew America*. New York, NY: Farrar, Straus, and Giroux.

Fuglie, K., & Rada, N. (2013). *Resources, Policies, and Agricultural Productivity in Sub-Saharan Africa* (Economic Research Report No. 145). Washington, D.C.: USDA Economic Research Service.

Gaillard, J. F. (1994). North-South research partnership: Is collaboration possible between unequal partners? *Knowledge and Policy*, 7(2), 31–63.

Glick, P., Chmura, H., & Stein, B. A. (2011). *Moving the Conservation Goalposts: a review of climate change adaptation literature*. National Wildlife Foundation.

Godden, L., Rochford, F., Peel, J., Caripis, L., & Carter, L. (2013). Law, Governance and Risk: Deconstructing the Public-Private Divide in Climate Change Adaptation. *UNSW Law Journal*, *36*(1), 224–255.

Government of Malawi. (2006). *National Adaptation Programmes of Action (NAPA)*. Lilongwe, Malawi: Environmental Affairs Department.

Halvorsen, T., & Nossum, J. (Eds.). (2016). *North-South Knowledge Networks: Towards equitable collaboration between academics, donors and universities*. Cape Town, South Africa: African Minds.

Hayward, F. M., & Ncayiyana, D. J. (2014). Confronting the challenges of graduate education in Sub-Saharan Africa and prospects for the future. *International Journal of African Higher Education*, *1*(1), 173–216.

Helms, R. M. (2015). *International Higher Education Partnerships: A Global Review of Standards and Practices* (CIGE Insights). Washington, D.C.: American Council on Education. Retrieved from http://www.acenet.edu/news-room/Documents/CIGE-Insights-Intl-Higher-Ed-Partnerships.pdf

Hydén, G. (2016). The role and impact of funding agencies on higher education and research for development. In T. Halvorsen & J. Nossum (Eds.), *North-South Knowledge Networks: Towards equitable collaboration between academics, donors and universities* (pp. 1–40). Cape Town, South Africa: African Minds.

International Institute for Sustainable Development (IISD). (2015). Summary of the Second Africa Ecosystem Based Adaptation for Food Security Conference. *EBAFOSC Bulletin*, *184*(7). Retrieved from http://enb.iisd.org/food-security/ebafosc2/html/enbplus184num7e.html

IPCC. (2007). Climate Change 2007: Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press.

IPCC. (2014). Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects (Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change). Cambridge, UK: Cambridge University Press.

Jayne, T. S., & Amayew, D. (2016). The role of agricultural transformation within Africa's economic development process. In *Africa Agriculture Status Report 2016. Progress towards Agricultural Transformation in Africa* (pp. 2–23). Nairobi, Kenya: Alliance for a Green Revolution in Africa. Retrieved from http://reliefweb.int/sites/reliefweb.int/files/resources/assr.pdf

Jayne, T. S., Kabaghe, C., & Minde, I. (2017). *Enhancing United States Efforts to Develop Sustainable Agrifood Systems in Africa*. Farm Journal Foundation.

Kahinda, J. M., Rockström, J., Taigbenu, A. E., & Dimes, J. (2007). Rainwater harvesting to enhance water productivity of rainfed agriculture in semi-arid Zimbabwe. *Physics and Chemistry of the Earth*, *32*, 1068–1073.

Kivaisi, A. K., Magingo, F. S. S., & Mamiro, B. (2003). Performance of Pleurotus flabellatus on water hyacinth (Eichhornia crassipes) shoots at two different temperature and relative humidity regimes. *Tanzania Journal of Science*, 29(2), 11–18.

Koch, S., & Weingart, P. (2016). *The Delusion of Knowledge Transfer: The Impact of Foreign Aid Experts on Policy-making in South Africa and Tanzania*. Cape Town, South Africa: African Minds.

Mathur, V., & Mohar, A. (2015). From response to resilience: adaptation in a global climate agreement. Observer Research Foundation.

Mellmann, N. (2015). *Ecosystem-based Adaptation – in Theory and Practice: A Case Study of Projects Supported by the International Climate Initiative*. Department of Earth Sciences, Uppsala University.

Mogues, T. (2011). Shocks and Asset Dynamics in Ethiopia. *Economic Development and Cultural Change*, 60(1), 91–120.

Mshigeni, K. E. (1995). The water hyacinth "weed" in Africa: a problem or an opportunity? *Discovery and Innovation*, 7, 99–100.

Mshigeni, K. E., & Chang, S. (2013). *Mushrooms, Environment and Human Health*. Dar es Salaam: Mkuki na Nyota.

Munang, R., Thiaw, I., Alverson, K., Mumba, M., Liu, J., & Rivington, M. (2013). Climate change and Ecosystem-based adaptation: a new pragmatic approach to buffering climate change impacts. *Current Opinions in Environmental Sustainability*, *5*(1), 67–71.

Nakayiwa, F., Osiru, M., Shibru, A., Sam-Amoah, L. K., Ochuodho, J., Assogbadjo, A. E., ... Kalizangoma, R. (2016). Developing Higher Education systems in Africa - Selected country views. *African Journal of Rural Development*, 1(2), 205–217.

Ngezimana, W., Mtaita, T., Shoko, M., & Tagwira, M. (2008). Improving Biological efficiency of Oyster mushroom, Pleurotusostreatus Fr. Through composting and use of organic supplements. *International Journal of Chemical Sciences*, *2*(1), 72–80.

Ngigi, M., & Birner, R. (2013). Shocks, livestock assets and climate change adaptation in Kenya. Presented at the 4th Africa Association of Agricultural Economics AAEA/AEASA Conference, Tunis, Tunisia.

Njaya, F. J., Chiotha, S., & Kabwazi, H. (Eds.). (1996). Lake Chilwa Management Plan. In *Proceedings of a workshop on the development of Lake Chilwa management plan*. Zomba, Malawi.

Njeru, R. (2014a). *Case studies on RUFORUM Regional Masters degree programs* (RUFORUM Consultancy Report). RUFORUM. Retrieved from http://repository.ruforum.org/system/tdf/RUFORUM%20Regional%20 https://repository.ruforum.org/system/tdf/RUFORUM%20Regional%20 https://repository.ruforum.org/system/tdf/RUFORUM%20 <a href="https://repository.ruforum.org/system/tdf/RUFORUM%20 <a href="https:

Omamo, S. W. (2003). *Policy Research on African Agriculture: Trends, Gaps, and Challenges* (ISNAR Research Report No. 21). The Hague: International Service for National Agricultural Research.

Osbahr, H. (2007). *Building resilience: Adaptation mechanisms and mainstreaming for the poor* (Human Development Report Office Occasional Paper). UNDP.

Paavola, J., & Adger, W. B. (2002). *Justice and Adaptation to Climate Change* (Uk Tyndall Centre Working Paper No. 23). Tyndall Centre.

Parmar, I. (2012). Foundations of the American Century: The Ford, Carnegie, and Rockefeller Foundations in the Rise of American Power. New York, NY: Columbia University Press.

Pattberg, P., & Stripple, J. (2007). *Remapping Global Climate Governance: Fragmentation beyond the public/private divide* (Global Governance Working Paper No. 32). Amsterdam: The Global Governance Project.

Patterson, K., Joseph, G., David, M., McMillan, R., & Switzler, A. (2013). *Crucial Accountability: Tools for Resolving Violated Expectations and Bad Behavior*. McGraw-Hill Education Publishers.

Pauli, G. A. (2010). The blue economy: 10 years, 100 innovations, 100 million jobs. Paradigm Publications.

Pauli, G. A. (2015). Case 106-Clustering Coffee, Food and Equality. In *Another Case of the blue economy*. Retrieved from https://www.researchgate.net/publication/296652937 CASE_106_Clustering_Coffee_Food_and_Equality

Rosenfeld, P. L. (2014). A World of Giving: Carnegie Corporation of New York -- a Century of International Philanthropy. New York, NY: Public Affairs Books.

Secretariat of the Convention on Biological Diversity. (2004). *The Ecosystem Approach, (CBD Guidelines)*. Montreal: Secretariat of the Convention on Biological Diversity.

Serdeczny, O., Adams, S., Baarsch, F., Coumou, D., Robinson, A., Hare, W., Reinhardt, J. (2016). Climate change impacts in Sub-Saharan Africa: from physical changes to their social repercussions. *Regional Environmental Change*, 1–16.

Simon, L. K. (2009). *Embracing the World Grant Ideal. Affirming the Morrill Act for a Twenty-first-century Global Society*. East Lansing, Michigan: Michigan State University.

Southern Voices on Adaptation. (2014). *Putting Principles into Practice: Civil Society experiences from across the world of using the Joint Principles of Adaptation*. Southern Voices on Adaptation. Retrieved from http://www.southernvoices.net/en/documents/key-documents/58-putting-principles-into-practice/file.html

Stern, N. H. (2007). *The Stern Review on the Economics of Climate Change*. Cambridge, UK: Cambridge University Press.

Sutton, S. B. (2015). Nine Principles for Achieving the Full Potential of Collaborative Partnerships. *International Educator*, *24*(1).

Sutton, S. B., & Obst, D. (Eds.). (2011). *Developing Strategic International Partnerships: Models for inititiating and sustaining linkages*. New York, NY: Institute of International Education.

Tanner, T., & Allouche, J. (2011). Towards a new political economy of climate change and development. *IDS Special Bulletin*, *42*(3), 62–69.

Thorp, R., Stewart, F., & Heyer, A. (2005). When and How Far is Group Formation a Route out of Chronic Poverty? *World Development*, *33*(6), 907–920.

Twagira, M. (1999). Mushroom production from easily available substrates in Africa. Presented at the world congress for Zero Emmision Research Initiatives (ZERI), Bogota, Colombia.

Twagira, M., Muswaka, A., & Muphuru, A. (1996). *Survey Report on Indigenous Mushrooms in Buhera District and Gutu District of Zimbabwe* (A Zimbabwe Biotechnology document).

UNESCO. (1962). Conference on the Development of Higher Education in Africa Report-Tananarive, 3-12 September 1962.

UNFCCC. (2007). Assessing, predicting and managing current and future climate variability and extreme events, and implications for sustainable development. UNFCCC.

UNFCCC. (2011). Ecosystem-based approaches to adaptation: compilation of information; Subsidiary Body for Scientific and Technological Advice (SBSTA). In *Thirty-fifth session*. Durban, South Africa: UNFCCC.

United Kingdom Department for International Development. (2005). *Growth and poverty reduction: The role of agriculture*. London: Department for International Development.

United Nations. (2016). *Transforming our World: The 2030 Agenda for Sustainable Development*. United Nations.

United Nations Environment Programme (UNEP). (2014). The Adaptation Gap Report. Nairobi, Kenya: UNEP.

USAID. (2014). *Michigan State University and University of Malawi Partnership, "Agro-ecosystems Services: Linking Science to Action in Malawi" Final Associates Award Report*. USAID. Retrieved from http://pdf.usaid.gov/pdf docs/PAO0K2DV.pdf

Wanni, N., Hinz, S., & Day, R. (2010). Good practices in educational partnerships guide: UK-Africa higher and further education partnerships. *London: Association of Commonwealth Universities, Africa Unit*. Retrieved from http://www.voced.edu.au/content/ngv:66587

World Bank. (1999). Knowledge for Development. World Bank.

World Bank. (2008). World Development Report 2008: Agriculture for Development. Washington, D.C.: World Bank.

Yesufu, T. M. (1973). Creating the African University. Ibadan, Nigeria: Oxford University Press.

APPENDIX

APPENDIX I

FACULTY GUIDELINES FOR SCHOLARLY AND PROFESSIONAL COOPERATION BETWEEN COLLEAGUES IN AFRICA AND MICHIGAN STATE UNIVERSITY

(Unanimously passed by the Core Faculty of the African Studies Center, Michigan State University, May 1993 and amended December 1993.)

We, the Core Faculty of the African Studies Center at Michigan State University (MSU), establish the following guidelines for collaboration with African colleagues. These guidelines are offered as a guide to all those from MSU who construct agreements for research and cooperation or who work in Africa, including faculty, graduate and undergraduate students, and all persons under MSU auspices or associated with MSU projects and programs in Africa. MSU faculty and students are expected to respect the laws, regulations, and customs of the African and US governments and of funding agencies governing research and administration of projects in Africa, including "human subjects" regulations. These guidelines are not legally binding and do not supersede other MSU, state, federal, or scholarly rules and regulations guiding external linkages and collaboration. Rather, these guidelines are an attempt to establish parameters for cooperation and trust, which we want to grow between our university, its faculty, students, and staff, and the peoples and institutions of Africa.

Character of Collaboration

We shall seek as far as possible to use our skills and knowledge in order to enhance the power of choice, the independence, and the welfare of African peoples and countries. We especially shall seek to enhance the resources and the capacities of African universities and institutions and African scholars to further their scholarly work and their search for solutions to African needs and problems. We shall seek to ensure that our activities in no way bring harm to Africa and African peoples.

We are committed to full and open collaboration with our African colleagues, to full disclosure of the nature and details of any projects which we establish with them, and to using the projects to increase the resources and welfare of our African collaborators, as well as all participants in our research, and the nations and regions being studied.

In our work with each other, our African co-investigators, and our graduate students, we are committed to open scholarly cooperation and to provide exemplary models of cross-disciplinary team research in our work.

When we engage in research in Africa, we shall notify our African colleagues of the sponsors, funders, and potential uses intended for the information to be collected. We shall not engage in any research which we know or believe is funded secretly, is likely to be used for covert purposes, or has potentially negative consequences for our colleagues. We shall make every effort to keep all of our research, instructional, and service activities free of sponsorship, direct funding, or secret uses by military and intelligence agencies of all governments. We shall not knowingly engage or participate in projects which could be reasonably construed as sustaining or strengthening the powers of political leaders or states guilty of violations of human rights. Furthermore, we are committed to keeping in the public domain all work completed under any government sponsorship.

Responsibilities to our Collaborator and to African Peoples in our Research

- 1. **To the peoples in our research:** We owe disclosure of our research goals, methods, sponsorship, and results. The participation of people in our research activities shall be on a voluntary and informed basis. Throughout our research activities and in subsequent publications, we shall maintain the confidentiality of those we study. We shall inform the people we study of the likely limits of confidentiality. We shall not promise a greater degree of confidentiality than can be reasonably expected. Within the limits of our knowledge, we shall disclose to those we study any significant risk that may result from our activities. We shall seek to extend the benefits of our research and other projects to all participants.
- 2. To the African communities ultimately affected by our research and its uses: We owe respect for their individual and communal dignity, integrity, and worth. We recognize that human survival is contingent upon the continued existence of a diversity of human communities, and we shall guide our professional activities accordingly. We shall seek to be conscious of the potential uses and implications of our research data and of the agendas of the sponsors and funders of the research, especially when any recommendations of our studies may affect the interests of the peoples or communities in our research.

3. To our African research colleagues: We have the responsibility to give support to their professional activities. In addition to respecting the needs, responsibilities and legitimate proprietary interests of our sponsors, we shall increase the flow of information about both research outcomes and professional methods and techniques. We shall accurately report the contributions of colleagues to our work. We shall not condone falsification or distortion by others. We shall not prejudice communities or agencies against a colleague for reasons of personal gain.

Early in any collaborative research process, we shall discuss questions of authorship, acknowledgements, and intellectual property rights (including rights to inventions and copyrights and issues of shared responsibility and decision-making about those rights) with African co-investigators and with cooperating graduate students and professionals. Issues of funding sources, project assistance, resources, and sponsorship also shall be fully explored with these colleagues. When the project or its outcomes are known to be for the profit of individuals, companies, or particular interests, we shall seek to make these publicly known to all involved in the project, and we shall attempt to ensure that the personal and private gains accrued are reasonable and fair. We agree to share all the materials collected in the course of the project with our collaborating colleagues in a timely manner.

Similarly, we shall seek to notify our co-investigators whenever we develop plans to utilize project materials or findings for use in papers, conference presentations, or other published or public works. If we publish the works of our collaborative research, we shall discuss publication plans fully and openly among collaborators and determine the appropriate authorship, citations, and acknowledgements. These will be discussed and agreed to both when we initiate writing projects and before submitting the written materials for external review or publication. In all publications, we shall seek to acknowledge the support, funding, and services of all grantors, cooperating African institutions and individuals, and, where relevant, Michigan State University.

Before releasing project data or materials to scholars or institutions outside the research team, the principal investigators and other affected team members will agree on the terms of the permissions.

Where our individual choices for personal expenditure of project funds will affect the resources available to African scholars and institutions, we shall seek to keep personal expenses at a reasonable level in order to increase funds available for research and for our African colleagues. To the extent possible, we shall seek to share equitably among collaborators the equipment and other materials purchased with project funds, in keeping with mutually agreed work plans specified in funded proposals.

- 4. **To our students, interns, or trainees:** We owe non-discriminatory access to our training services. We shall provide training which is informed, accurate, and relevant to the needs of the larger society. We recognize the need for continuing education so as to maintain skills and knowledge at a high level. Training should inform students as to their ethical and legal responsibilities. Student contributions to our professional activities, including both research and publication, will be adequately recognized.
- 5. **To our employers and other sponsors:** We owe accurate reporting of our qualifications and competent, efficient, and timely performance of the work we undertake for them. We shall provide a clear understanding with each employer or sponsor of the nature of our professional responsibilities. We shall report our research and other activities accurately. We have the obligation to attempt to prevent any distortion or suppression of research results or policy recommendations.
- 6. **To the African societies:** We owe the benefit of our special knowledge and skills in interpreting the phenomena we study, while building on the relevant indigenous knowledge and experience. We are willing to communicate our understandings of the human, natural, and physical situation in which the African societies and nations are embedded and within which their interests will be affected. At the end of the projects, we shall ensure that participating African institutions have access to all publications and the data and materials collected, after we have provided for the full protection to the anonymity of any informants.

APPENDIX II

BEST PRACTICES FOR INTERNATIONAL PARTNERSHIPS BETWEEN HIGHER EDUCATION INSTITUTIONS IN AFRICA AND ABROAD (April 2000)

Here are some of the principles that have emerged both from some successful and some failed partnerships between African and foreign partners. These are likely to define common practice among effective, mutually beneficial, and enduring partnerships. Because international partnerships between tertiary institutions and their faculty, administrators, and students are diverse in their purposes and methods, any criteria for best practices should not be applied rigidly. See the notes below on the sources of these best practice criteria and how to comment on them and propose amendments.

- 1. **Clarity about goals:** As they enter a partnership, the participants seek to be clear about their goals, personal and institutional, and about what they bring to the collaboration and want to receive from it. These goals should be shared openly with each other early in the relationship.
- 2. **Consortial linkages:** Where possible, the partners work through consortial arrangements with multiple universities in order to maximize the efficiencies in using resources and to encourage widened collaboration within Africa and between African and other foreign partners.
- 3. **Understand each other:** Partners work seriously to learn about the other institution, its constraints, strengths, and limitations, and to acquaint the partner with their own institution.
- 4. **Provide internal funding:** The partner institutions commit some of their own funds to the relationship, not relying only on external support. The partners are innovative in seeking to direct institutional resources to the partnership, such as through asymmetrical study abroad programs that bring African post-graduates to study in foreign institutions in exchange for foreign undergraduates studying in Africa.
- 5. **Build for the long-term:** Partner institutions expect to develop a long-term relationship of at least five to ten years so that knowledge about each other and mutually beneficial collaboration can develop, deepen, and broaden.
- 6. **Broad support:** The partnership has the support and commitment of both the relevant faculty and the administrative leaders of the partner institutions.
- 7. **Joint decision-making:** As they develop an agreement, partners will seek to concur on methods for decision-making, which activities are to be pursued, and what resources will be used. This requires carefully listening to each other and a willingness to seek understandings and consensus around mutually acceptable resolutions of inevitable differences of judgments and perceptions.
- 8. **Written agreement:** After these goals are understood, a written agreement is developed that describes the purposes and goals of the partnership, the resources that each institution brings to the partnership, methods of seeking external funding, means of documenting progress of the relationship, and a method of periodic evaluation. The agreement is not to be considered a legal and financial contract but a statement of commitment and intent.
- 9. **Transparency on funding:** On issues of funding, there is transparency in the sources, amounts, requirements governing, and all intended uses of funds obtained in the names of the partners, including representations made to potential funders. Neither partner will be engaged in covert or secret research or operations in the project. Transparency requires sharing the expectations of both the donor and the users to address problems that may arise around different customs and institutional regulations in using and accounting for the expenditure of funds.
- 10. Addressing inequality of resources: In allotting funding, the partners take into account the unequal resources that are available to the partner institutions and their individual faculty members. In seeking to build a relationship of inclusivity and equity, the partnerships adhere to a policy of equal opportunity for all regardless of race, ethnicity, nationality, gender, age, or sexual orientation.

- 11. **Transparency on issues of power:** The partners seek to be transparent about the differing roles of leaders and stakeholders and the differing authority and power in the relationship. They usually will document and share these understandings to facilitate communication and to clarify responsibilities. This information will be shared with all participating personnel.
- 12. **Constancy of goals:** In the event that there are changes in the institutional leadership of one of the partners every effort will be made to honor the original goals and activities of the partners as established in the original agreement and subsequent negotiations.
- 13. Addressing conflict: If conflict develops, the core leadership team will be alerted and they will meet and communicate to address the concerns and to re-establish a productive working relationship among the partners.
- 14. Ethical and human subjects guidelines: In partnerships involving research, the most stringent human subjects standards and ethics will apply, such as in the human subjects regulations and the Ethical Guidelines of the MSU African Studies Center, African Studies Association, American Anthropological Association, American Sociological Association, and the many other professional associations with statements of ethics.
- 15. **Acknowledging contributions:** The partners work to create some mutually agreed upon language to credit and acknowledge everyone's contributions, including the sources of project funding. This will be used in printed and electronic announcements.
- 16. **Celebrating partnerships:** The partners will find occasions to celebrate the successes of their partnership.

Sources of these criteria for Best Practices in Academic Partnerships:

The principles in this statement have been developed first in conversations among the African and US members of the Higher Education Forum of the US/South Africa Bi-National Commission meeting in Cape Town and Washington, and also those who attended the conference on Academic Partnerships with South Africans for Mutual Capacity Building (October 18-21, 1998), co-sponsored by Michigan State University and the Historically Disadvantaged Institutions Forum, the Committee on Technikon Principals, and the South African Universities' Vice Chancellors' Association. Subsequently, the draft statement was circulated among approximately 25 persons experienced in US/South African partnerships. In April 2000, their suggestions have been incorporated by David Wiley into this draft from other African partners.





