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**THE FUTURE OF AID EFFECTIVENESS RESEARCH IN AFRICA**

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# "BARRIERS AND OPPORTUNITIES FOR STRONGER RESEARCH ON AID EFFECTIVENESS IN SUB-SAHARAN AFRICA"

(DISCUSSION NOTE)

**ABSTRACT**
The principles of aid effectiveness, especially for achieving the SDGs, are rooted in the consensus that multi-stakeholder collaboration among policymakers, international development partners, academics, private sector actors, civil society organizations and other relevant actors is a *sine qua non* for advancing sustainable development**.** This paper articulates the barriers to, and opportunities for, stronger research collaboration on aid and development effectiveness in SSA – with the aim of bolstering collaboration between development partners and aid recipient countries; and strengthening the voice of aid recipient countries in the aid effectiveness discourse. It explores the potential for collaborative research in SSA, with a focus on the rationale, structure and nature of collaborative research; articulates the challenges facing collaborative research in SSA, based on evidence from the literature and interactions with policymakers and researchers; and examines the institutions, development partners and countries capable of leading the way. Regional SSA institutions, in particular, should play a leading role in setting the research agenda, while donors should explore the potential of local SSA expertise in driving research on aid effectiveness. In addition, it is vital to develop viable incentive structures that can encourage, promote and sustain collaborations – given the diverse interests, needs and motivations of stakeholders.

**KEY WORDS:** Aid effectiveness, collaborative research, sub-Saharan Africa

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## 1. INTRODUCTION AND CONTEXT

Since September 2015, the Sustainable Development Goals (SDGs) – otherwise known as ***Transforming Our World: The 2030 Agenda for Sustainable Development*** – have provided the overarching framework for global development**.** This recently adopted development paradigm, which succeeds and builds on the Millennium Development Goals, is a plan of action for people, the planet and prosperity. It has a set of 17 Sustainable Development Goals and 169 targets, which cover a wide range of economic, social and environmental development aspirations. Laudable as these goals are, their success, especially in developing regions like sub-Saharan Africa (SSA), hinges largely on collaborative partnerships among all stakeholders.

The importance of collaboration to the success of the SDGs is widely acknowledged. The 17th goal clearly states that: "A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the center, are needed at the global, regional, national and local level". This highlights the fact that partnerships are required in almost all spheres of SDG implementation: finance, technology, capacity building and trade; and systemic issues involving policy and institutional coherence, multi-stakeholder collaborations, data generation and collection, monitoring, evaluation and accountability.

Important commitments have been made by various stakeholders, promising collaboration for sustainable implementation of the SDGs. Prominent among these are: 'The New Deal on Energy for Africa' led by the African Development Bank; the 'Breakthrough Energy Coalition', a group of prominent founders and CEOs of global firms under the leadership of Bill Gates; the 'Global Commission on Business and Sustainable Development', a partnership that includes the United Nations Foundation, the World Business Council for Sustainable Development, the Overseas Development Institute and Unilever; and 'Champions 12.3', a coalition of executives from governments, businesses, international organizations, research institutions, farmer groups and civil society. There is no doubt that these types of commitments and calls for collaborations from diverse stakeholders will multiply with time.

Collaboration of these types among various stakeholders is a *sine qua non* for aid effectiveness and the successful implementation of the SDGs. The SDGs are truly cross-cutting targets and, as such, require collaboration between researchers and policymakers (responsible for implementing the SDGs); across countries; across donors and other stakeholders financing the SDGs; and across research subject specialisms and disciplines. The focus of this report is on research collaboration.

Research collaboration is hindered by a number of factors – some global, some peculiar to the African continent. These include:

- The donor community landscape: donors do not effectively and sufficiently 'talk'

to each other, thus limiting the potential for synergy.

- The hyper-specialization of researchers within their disciplines and academia: this limits the scope for vertical, horizontal and multidisciplinary collaborative research that can enable a more holistic view of the challenges facing SSA and the solutions for dealing with them.
- Limited institutional and human capacity, and a lack of financial resources that can help facilitate collaboration.
- The complexity of cross-societal cooperation required to drive the collaborative framework for aid effectiveness and the implementation of the SDGs.
- The challenge of designing effective mechanisms and frameworks for collaborative research.
- The difficulty of developing and instituting appropriate and viable incentive structures for all collaborating stakeholders that can encourage, promote and sustain collaborations – given the diverse interests, needs and motivations of these stakeholders.

The general purpose of this paper is to articulate the barriers to, and opportunities for, stronger research collaboration on aid and development effectiveness in SSA. It has a dual purpose: to bolster collaboration between development partners and aid recipient countries; and to strengthen the voice of these aid recipient countries in the aid effectiveness discourse, particularly in relation to the SDGs.

This paper adopts Katz and Martin's (1997: 7) concept of research collaboration, which they defined "as the working together of researchers to achieve the common goal of producing new scientific knowledge". They define a collaborator as "anyone providing an input to a particular piece of research". This includes those that work together on a research project for its entire duration or a large part of it, and make frequent or substantial contributions; anyone whose name appears in the original research proposal; anyone who is responsible for one or more of the main elements of the research; anyone responsible for a key step in the research process; or anyone responsible for the project initiation or fundraising.

Another important conceptual issue requiring clarification is 'aid effectiveness'. The Paris Declaration on aid effectiveness presents a basic understanding of the concept: the extent to which aid is effective in achieving specific, pre-defined expected objectives and outcomes. More specifically, Stern et al. (2008:20) define aid effectiveness as the "arrangement for the planning, management and deployment of aid that is efficient, reduces transaction costs and is targeted toward development outcomes including poverty reduction".

It is important to point out from the outset that there is limited literature and information that focuses exclusively on collaborative research for development and aid effectiveness, especially in SSA. Most of the available literature focuses on the general concept of collaborative research, of which collaborative research on aid and development effectiveness is a subset. Therefore, the tendency in this paper to focus the discussion on general collaborative research is dictated by the nature of the available literature and information.

Following this introduction, Section 2 explores the potential for collaborative research in SSA, with a focus on the rationale, structure and nature of collaborative research. Section 3 articulates the challenges facing collaborative research in SSA, based on evidence from the literature and interactions with policymakers and researchers. Section 4 presents the opportunities for collaborative research in SSA, with a particular focus on the institutions, development partners and countries that are capable of leading the way. Section 5 provides some recommendations for a way forward.

## 2. THE POTENTIAL FOR COLLABORATIVE RESEARCH IN SSA

The principles of aid and development effectiveness, especially for achieving the SDGs, are rooted in the consensus that multi-stakeholder collaboration among policymakers, international development partners, academics, private sector actors, civil society organizations and other relevant actors is a *sine qua non* for advancing sustainable development globally, and more specifically in SSA. Hence, there is an urgent need to examine the rationale, nature and structure of existing research collaboration at the national and regional level, with a view to understanding the potential for aid effectiveness in SSA. The need to re-examine the existing approaches to collaborative research and forge new ones has never been more pressing, if significant progress is to be made toward increasing the voice of SSA researchers – as part of efforts toward achieving the SDGs.

### 2.1 Rationale for Collaborative Research in SSA

**Funding.** Large-scale funding at national, institutional and individual levels is limited or non-existent in most SSA countries. Some countries do not have a national funding system for university researchers and research institutions. In countries where national funding is available, it is usually neither sufficient nor transparently administered. In addition, there is limited support from private sector stakeholders – for example, the funding of endowed chairs, a common practice in developed countries. Collaborative peer research is needed to bridge the research funding gap associated with the region. In addition, funding that accompanies this type of collaboration sometimes comes with mentorship and training opportunities, which could help SSA researchers to further hone their research skills and build their capacity.

**Visibility**. Publications emanating from collaborative research gain higher visibility and are more well-respected, and therefore more frequently cited. This is especially true for trans-border, inter-regional and intercontinental collaborative research. In SSA, knowledge products emanating from collaboration among SSA researchers and their counterparts in other countries, especially developed regions, have achieved significant visibility and influence, and a larger number of citations. Examples of recent publications that fall into this category are Ndulu et al. (2008 a,b), and Monga

and Lin (2015). Collaborative research tends to be of higher quality and more highly regarded, innovative, widely diffused, and provides a better platform for exchange of knowledge.

**Access to Research Infrastructure**. Research collaborations provide access to special competences, superior analytical methods and research equipment for SSA partners. Relative to their peers in developed countries, SSA researchers lack competences because of limited access to important research infrastructure. More often than not, analytical and methodological tools such as scientific research tools, laboratory equipment and statistical software are either in short supply or unavailable to researchers based in the region.

In many instances, collaborative research provides SSA researchers with funding and opportunities to visit the donor country for training, workshops and conferences. These contribute significantly to building the capacity of researchers and granting access to hitherto unavailable research infrastructure like scientific journal articles, books, statistical software and funding to purchase important research equipment such as computers. Discussions with some first generation SSA researchers reveal that a large proportion of them obtained their first computer, important research equipment and analytical tools through donor-funded research collaborations. They also received significant training in ICT through these interactions.

**Increased productivity**. It is generally acknowledged in the empirical literature that productivity is an important rationale for collaborative research (see Wuchty et al., 2007; Dietz and Bozeman, 2005; Lee and Bozeman, 2004). Productivity is achieved through synergy, the division of labor and leveraging the relative strengths of the different collaborators. It is rare to find a researcher that could be described as an 'all-rounder'. Generally, researchers have their own strengths and weaknesses – areas where they excel and areas which they are not particularly comfortable with. Combining the strengths of researchers through collaborative research helps bypass this challenge. Productivity is, therefore, enhanced through leveraging the different strengths of all research team members. It also increases research quality and the credibility of research findings. In addition, an interdisciplinary approach is more capable of tackling complex development research problems.

## 2.2 Nature and Structure of Collaborative Research in SSA

### Intra-continental

This involves collaborations among individual researchers, research institutions and universities within SSA. The advantage of structuring collaborative research in this way is that it allows the effective use of limited research resources and infrastructure – which need to be properly and effectively utilized to maximize benefits and impact. In addition, intra-continental collaborative research increases the competitiveness of the region: researchers working in collaboration are more able to compete for funding at the global level. Working in silos when competing for research funding weakens the competitiveness of SSA researchers and institutions,

and ultimately of the region.

An assessment of intra-continental research collaboration by Adams, King and Hook (2010), which measured co-authorship of publications among African researchers between 2004 and 2008, yielded interesting findings.[1] First, they found that language was a key factor in intra-continental research collaborations: they identified hubs around Cameroon for French-speaking West African countries and strong collaboration in East Africa, based on the common use of English in this region. In Western Africa, the strongest collaborations were between Nigeria, Ghana and Gambia – again, based on the common use of English. The study singled out Nigeria as a driver of intra-continental research collaboration; it plays an active role in Anglophone collaborative networks with its West African neighbors and with South Africa. Similarly, South Africa has strong collaborative networks across the continent and globally.

One key challenge for intra-continental collaborative research in SSA is the 'brain drain' (see Deen, 1999; Barka, 2000; Odumasi-Ashanti, 2003). Many African researchers and scholars have left the continent in search of 'greener pastures'. This is often the result of poor research infrastructure. As a result, SSA universities and research institutions are often characterized by overworked professors and researchers who have to cater for hundreds of students. More important is the relatively poor remuneration for researchers in universities and ancillary research institutions in SSA – with the exception of South Africa and Nigeria (Altbach, 2003; Altbach, Reisberg and Pacheco, 2013). Hence, very few of the many young Africans that travel to Europe and North America for graduate studies return to take up research jobs on the continent.

Geographical and political issues are also important obstacles. Mobility across Africa remains a major limiting factor to collaborative research due to poor regional infrastructure and transportation. Indeed, it takes less time and effort to travel out of the continent than within. Moreover, travelers within Africa still require visas to travel when going outside their sub-region. This limits mobility and networking, and consequently collaborative research across sub-regions.

Several initiatives have been proposed to strengthen intra-continental collaborative research in SSA, especially in areas of health. One of these is the Climate Impact Research Capacity and Leadership Enhancement Program, which offers one-year postgraduate fellowship opportunities for African researchers in African institutions other than their own. Implemented by the African Academy of Sciences and the Association of Commonwealth Universities, this initiative targets researchers focusing on climate change and its impact on the continent. There is also the Developing Excellence in Leadership, Training and Science Africa Initiative, which

[1] This study examined all forms of collaborative research; there was no particular focus on aid effectiveness. However, the fields of research covered include economics, general social sciences, agricultural sciences, clinical medicine, environmental studies/ecology, immunology, and plant and animal sciences – all of which, to some extent, are relevant to aid and development effectiveness.

aims to promote collaborative research to address health challenges related to infectious and non-communicable diseases. It has a large network of African research collaborators from 21 countries working on 11 programs. The Wellcome Trust and the US National Institute of Health are jointly funding the Human Heredity and Health in Africa Consortium (H3Africa). Through this initiative, there are no less than 24 collaborative research projects in genomics in several African research institutions. The African Economic Research Consortium is also engaging in similar efforts – promoting economics education and research through its collaborative research, and collaborative Master's and PhD Programs.

**Intra-institutional**

This involves research collaboration among researchers within the same institution. Proximity appears to be the major factor fostering this type of collaboration. Researchers working within the same institution are able to collaborate more easily. They are able to develop research ideas through regular discussions, interactions, brainstorming sessions, common observations, and regular interactions on aid and development effectiveness issues.

In many instances, institution-focused development research funding is available to SSA countries through donors. This funding is usually secured by high profile professors and researchers affiliated to these institutions. Some of them are granted research funding through networks they built while studying in developed countries. Others have succeeded in tapping into the networks of individuals they met at global research conferences, workshops and meetings at different host institutions. However, this type of collaborative development research may be limited in scope given the similar background of the researchers involved.

**Inter-institutional**

This involves collaborative research between two or more research institutions, based either in SSA or other regions of the world. Several examples of this type of collaborative research exist in SSA. One example is the Cambridge-Africa ALBORADA Trust Research Fund. During the 2014/2015 academic year, 29 collaborations were forged involving Cambridge University faculty members and SSA collaborators based in African universities.[2] However, this is limited in terms of the coverage of SSA researchers and institutions. Only ten countries are covered; in fact, these collaborations are biased heavily in favor of Uganda and Ghana.

Another noteworthy collaborative research initiative that falls under this category is the African Network of Scientific and Technological Institutions (ANSTI). Established in 1980, and funded jointly by UNDP and the German Government, this collaborative network was a response to an appeal made by African leaders during the Conference

[2] See http://www.cambridge-africa.cam.ac.uk/initiatives/the-alborada-research-fund/funded-projects-201415/. Some of the development effectiveness issues covered are child and maternal health, education, peacebuilding, food security, and infrastructure development.

of African Ministers of Science and Technology, held in Senegal in 1974. The appeal, made to UNESCO, was for support and assistance for African universities and research institutions in pooling their human capacity and skills – to effectively use science and technology to benefit the continent in its development aspirations. ANSTI is active in engaging its members in regular funded and non-funded development effectiveness collaborative research and peer review journal publications. The African Development Bank is providing a grant in support of the institution to publish and disseminate scientific research through the African Journal of Science and Technology.

Inter-institutional collaborative research is also promoted through the Africa Think Tank Summit (see McGann, 2015). The purpose of this initiative is to explore the sustainability, value and impact of think tanks in the areas of capacity development, knowledge sharing and networking, resource mobilization, and regional initiatives and partnerships on research generally, and development effectiveness in particular. Going beyond mere collaboration, the initiative aims to strengthen the linkages between think tanks and policymakers for the common purpose of achieving the globally-agreed SDGs and the Africa-specific Agenda 2063. The think tanks were expected to act as bridges between governments, businesses and civil society. The interesting thing about the initiative is that it is, in itself, a collaboration between think tanks, regional and sub-regional institutions, donor organizations and non-governmental organizations.

Collaborating through the Developing Excellence in Leadership, Training and Science (DELTAS); the Wellcome Trust, the African Academy of Sciences' Alliance for Accelerating Excellence in Science in Africa and the Department for International Development (DfID) have provided funding worth GBP 21 million for collaborative health research.[3] The DELTAS initiative was conceived to promote Africa-led development collaborative research in health-related issues. To date, no less than 11 research teams have been supported to the tune of GBP 60 million.

**Interdisciplinary and Multidisciplinary**

The complex nature of development issues demands a multidisciplinary and interdisciplinary approach to research. This is one of the most important rationales for this type of collaborative research. Indeed, this has been recognized globally and enunciated in the MDGs and the subsequent SDGs. This appears to be the current trend in collaborative research, both globally and in SSA. Several institutions provide support for this type of collaborative research activity.

The African Academy of Science provides a platform for African scientists from different fields to collaborate. With regional offices in East, West, Central and Southern Africa, the Academy supports an active network for driving sustainable development in SSA using science, technology and innovation. Since its membership

[3] see https://wellcome.ac.uk/what-we-do/directories/developing-excellence-leadership-training-and-science-initiative.

reaches across the continent and includes highly influential and respected researchers and thinkers, the network is effective in influencing African governments, policymakers and the African Union (AU) on diverse sustainable development issues. For example, the institution is working in collaboration with the AU as a member of the working group responsible for reviewing and updating the consolidated 10-year action plan (2013–2023) for science, technology and innovation development in Africa.

**North-South**

This refers to collaborative research between SSA countries and researchers in developed countries, notably North America, the UK and Europe. Donor funding through research grants appears to be the strongest driver of this type of collaboration. Researchers from developed countries working on development issues have access to donor funding and this type of research requires collaborating with researchers in developing countries. These types of collaborative research are often funded through bilateral agencies such as DfID-UK, USAID, the Japan International Cooperation Agency (JICA), the Canadian International Development Agency (CIDA), and the Norwegian Agency for Development Cooperation (NORAD). Another important driver of this type of collaborative research are the networks built by SSA researchers with peers in developed countries, developed during their graduate studies in these countries.

The third factor is the active promotion of North-South collaborative research by developed countries. For instance, Switzerland has established the Commission for Research Partnerships with Developing Countries, which is responsible for building trans-boundary, collaborative research networks between Swiss institutions and developing countries, including those in SSA. This serves as a forum for bringing together Swiss researchers and peers in developing countries that are looking for potential research partner institutions. Through this forum and the database it provides, researchers are able to obtain information on specific expertise they require for potential research projects. This network includes universities, think tanks, research institutes and civil society organizations (CSOs), located in most parts of SSA.

Another example is the Royal Society-DfID Africa Capacity Building Initiative funded by DfID-UK. The main objective of this North-South collaboration is to bolster the research capabilities of research institutions and universities in SSA through supporting the development of sustainable research networks and promoting multidisciplinary partnerships with UK institutions. Some of the strategies employed include integrated PhD scholarships and shared supervision of students between UK and SSA institutions, promoting skills transfer from the UK to SSA institutions, and supporting participating African institutions to develop and achieve sustainable research and research capacity.

Other types of North-South collaborative research in SSA include:

- The Swedish Agency for Research Cooperation with Developing Countries'

(SAREC) partnership research programs, funded by SIDA
- The International Development Research Center's cooperative research program, funded by CIDA
- Collaborative Research Support Programs and the Program in Scientific and Technological Cooperation, both funded by USAID
- The Board on Science and Technology for International Development's grants program, funded by the US National Academy of Sciences
- The Danish Program for Enhancement of Research Capacity in developing countries (ENRECA), funded by DANIDA
- The Science, Technology and Development Program, funded by the European Community (see Gaillard, 1994; Engelhard, 1999).

**South-South**

The concept of South-South collaboration is defined by the UN Office for South-South Cooperation as "a broad framework for collaboration among countries of the South in the political, economic, social, cultural, environmental and technical domains…South-South cooperation is initiated, organized and managed by developing countries themselves; often, governments play a lead role, with active participation from public and private sector institutions, non-governmental organizations and individuals. It involves different and evolving forms, including the sharing of knowledge and experience, training, technology transfer, financial and monetary cooperation and in-kind contributions".[4]

Although it dates back to the Bandung Conference of 1955, this collaborative approach first gained recognition at the Accra Agenda for Action. The shared values and interests of SSA countries and their Southern peers are among the key drivers for this type of cooperation. China is by far the most important partner for SSA: the region accounts for almost 50% of total Chinese aid (CSO Partnership for Development Effectiveness, 2014). The emphasis is usually on infrastructure and productive sectors like agriculture, energy and industry. While Chinese collaboration with the continent dates back to the 1950s, recent collaborations have been driven through the Forum on China-Africa Cooperation, the framework for all its engagements with SSA. This is complemented by the China-Africa Business Council, which is a private sector initiative with very strong government support. Brazil, India, Russia, Chile and Mexico also provide collaborative support, albeit on a much smaller scale.

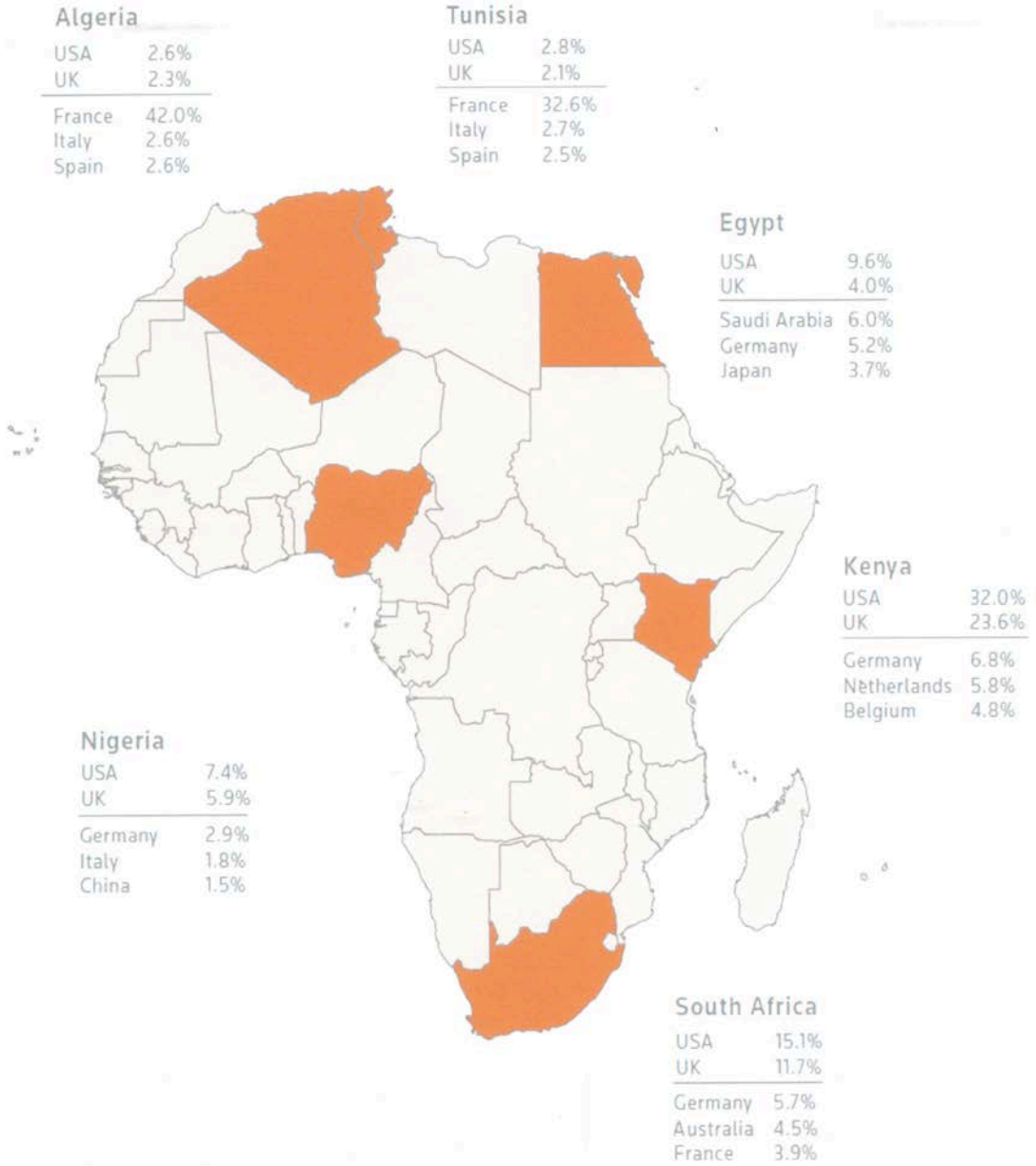
**Global**

Global collaborative research partnerships involve SSA researchers collaborating with their peers outside the region. Adams, King and Hook (2010) provide an informative summary of this type of research by collating co-authorships (Figure 1). They identify three regional leaders: Nigeria, South Africa and Kenya. For all SSA countries, the USA is the most important collaborative research partner, followed by

[4] See http://ssc.undp.org/content/ssc/about/what_is_ssc.html

the UK and then Germany. Other important collaborators include the Netherlands (for Kenya), Australia (for South Africa) and Italy (for Nigeria). Kenya topped the list of SSA countries for global collaborative research followed by South Africa – both of which had high levels of co-authorship with the USA and the UK. An interesting feature of these finding is that only Nigeria has an emerging country (China) in the top five of its collaborative research partners.

**Figure 1. Top Collaborating Countries for Six Key African Countries**




Source: Adams, King and Hook (2010).

The strong collaborative research links with the USA and the UK for the top three SSA countries were forged by Africans studying in these countries. Many Africans were educated in the USA and the UK and, as a result, have built strong relationships with their academic supervisors, professors and peers. Many of these returning students take advantage of these relationships and networks to engage in collaborative research. Language is also an important factor because all three

countries are English-speaking. The potential for Nigeria to become a global research hub in SSA emanates from its strong links with both Northern and Southern partners. Thus, the country has great potential for becoming a formidable force for galvanizing West African, Anglophone and, indeed, SSA collaborative reach – linking the region with the rest of the world.

A number of global institutions promoting SSA collaborative research networks are worth mentioning. Prominent among these are the Global Development Network, the Sustainable Development Solutions Network, the African Economic Research Consortium and the International Development Research Council. Collaborative research through these global and regional institutions is largely donor-driven; and while they involve partnerships with a diverse range of countries they are based on the common challenges facing the continent – namely, health, food security and agriculture. For example, the fight against malaria, and more recently HIV/AIDS, has been a major driver of donor interventions in collaborative research in SSA. The UK Medical Research Council, DfID, USAID, CIDA, UN, and private sector initiatives like the Wellcome Foundation and the Bill and Melinda Gates Foundation, have made huge investments in collaborative research between African and global researchers at country, sub-regional and continental levels.

It appears, therefore, that collaborative research for aid effectiveness is most prevalent in health and nutrition. This is understandable because these are the most basic and most pressing needs for most people in SSA. Pouris and Ho (2014) show that tropical medicine, parasitology and infectious diseases, biodiversity, water resources, entomology, and mining are the key areas of such collaborative research. Malaria, HIV/AIDS, food security and sustainable natural resource management are the main focus of these collaborative engagements. Conversely, the authors show the lack of importance given to the natural sciences, especially physics, chemistry, materials science and engineering. This is a worrying aspect of collaborative research in that it neglects the foundations of technological progress and innovation – which are capable of transforming the continent.

The growing influence of globalization is breaking down the geographical barriers to research collaborations. Hence, global, multidisciplinary and interdisciplinary models of collaborative research have gained more prominence – as opposed to models of collaborative research that focus on individual institutions or professions.

## 3. CHALLENGES FACING COLLABORATIVE RESEARCH ON AID EFFECTIVENESS IN SSA.

This assessment of the challenges facing collaborative research for aid and development effectiveness in SSA is based on the literature and personal interactions with policymakers across SSA, particularly in Nigeria. Some of the key challenges identified are discussed below.

**Research collaborations are externally-driven**. Emerging findings show that when it

comes to research collaborations between Africans and researchers from developed donor countries, which are largely funded by Northern institutions, African researchers rarely participate in processes for generating the research proposals. In many instances, they are not given the opportunity to contribute and provide inputs into the initial stages. African collaborators are merely urged to endorse the proposal to satisfy the condition for an African collaborator in the research team. This denies them the opportunity to shape the focus of research and, in turn, make a significant contribution to aid effectiveness.

As a result, important inputs from African collaborators – who have a better understanding of the local social, cultural, economic and political contexts, and the nature of the research questions – are lost. This could considerably weaken the effectiveness of aid deployed for such research. Moreover, the desire to obtain much needed donor funding for domestic African research and government institutions often results in significant comprises, particularly in relation to the aid effectiveness agenda. Unfortunately, this problem will persist so long as collaborative research in social sciences and other disciplines is driven by donors, with little or no input from national governments in SSA countries (Kilama, 2003).

**Bias in research collaboration that favors a few countries and fields**. Collaborative research in SSA is biased heavily toward a few countries – namely, Nigeria, Kenya and South Africa. The availability of competent researchers that are capable of engaging in meaningful collaborative research appears to be a major factor behind the concentration in these countries. Moreover, collaborative research, for the most part, involves only three Northern partners: USA, France, and the UK; largely due to the funding opportunities in these countries. Disciplinary focus has also been limited. Pouris and Ho (2014) argue that disciplines that have the potential to engender sustainable development and to support SSA countries to develop modern economies are largely ignored.

**Weak incentive structures**. Undertaking quality collaborative research is a very expensive endeavor in SSA. The high costs result from poor hard and soft research infrastructure. Therefore, to encourage research, SSA researchers need some support through incentives that relieve them of some, or all, of these financial burdens. Yet, the incentive structures for providing much needed support for collaborative research in SSA remain weak. Incentives such as targeted subsidies, tax incentives or reductions in the costs of accessing relevant scientific journals and databases (which are essential for collaborative research to flourish) are limited or non-existent.

**Excessive focus on donor benefits and less on recipients**. Many collaborations, including donor-funded collaborative research, focus, sometimes exclusively, on the benefits to donor countries and institutions, with less attention on recipient countries. This neglects the main priorities for Africa: structural reform and capacity building. For example, the EU's Horizon 2020 initiative focuses largely on the economic, competitiveness and social benefits to European countries: "Horizon 2020 will stimulate Europe's economic growth, generating 0.53 percent of extra GDP. It will also enhance Europe's competitiveness, increasing its exports by 0.79 percent,

and reducing its imports by 0.1 percent. It will create jobs for Europe's citizens, increasing employment by 0.21 percent" (EC, 2011: 6). No mention was made of the benefits to collaborating SSA countries.

**Poor research infrastructure**. The poor state of research infrastructure in SSA is a major challenge for forging collaborative research both among Africans and between Africans and their counterparts from other parts of the world. For example, the region lacks access to power, which makes working on research projects in universities and research institutions more difficult and less effective. Sometimes, universities do not have access to power for days or even weeks. Many researchers rely on alternative power supplies (especially power generators) either at universities or at home, but these are often no more reliable than the public power supply. This is very expensive and unsustainable for researchers given their poor pay. Indeed, there is some laboratory-based research that relies on the use of electricity-powered equipment and facilities. This lack of basic infrastructure means that researchers in SSA are less productive, limiting their potential contribution to the discourse on global issues such as aid effectiveness.

**Weak institutional capacity**. Many African researchers are affiliated to institutions that have weak research infrastructure. They do not have access to the databases of global institutions such as the World Bank, IMF, UNCTAD and similar organizations – which are critical for empirically-sound and policy-oriented research. They often have to make do with databases that provide free access. Even if they have access to online databases, many SSA institutions lack a stable and reliable internet connection. Individual researchers are often forced to subscribe to internet data plans that are very expensive and have limited geographical coverage. Libraries in many of these institutions do not provide access to up-to-date books and journals; most of them are old and outdated. To get around this, researchers are forced to rely on online research that is neither rigorous nor sufficiently robust for forming a sound basis for understanding the issues.

**Weak individual research capacity**. Often, weak individual capacity is the direct outcome of weak institutional capacity. As a result of poor education and training, a lack of research exposure, and poor research infrastructure, SSA researchers have limited research capacities. Some are not capable of developing research proposals that meet international standards. Yet, most requests for proposals are highly competitive and thus require a strong competitive edge to progress through the selection process. Writing research proposals requires specialized skills and training that SSA researchers often lack. In some instances, where SSA researchers are able to forge collaborations with researchers from developed countries, they are often only involved in data collection and research assistance, with limited or no involvement in core research activities.

**Poor collaborative research project management**. Many donors have specific templates for managing and reporting collaborative research projects. Some of these can be very complex and difficult for some SSA researchers to understand. In many cases, developing a budget that captures research activities without violating the strict instructions of the donor on what may or may not be included can be a

complex task. Many SSA researchers lack the important skills that could help promote collaborative research in the context of aid effectiveness.

**Limited access to funding and collaborative opportunities.** The poor state of infrastructure and weak institutional capacity tend to limit access to funding information and collaborative research opportunities. The challenges of meeting the tight deadlines for calls for research collaboration are exacerbated by weak infrastructure (such as limited power supplies or weak internet connections). The inability of researchers to meet these deadlines often deters Northern institutions from proposing future collaborations, resulting in missed opportunities for both parties, but especially for SSA researchers.

**A lack or limited understanding of the SSA environment on the part of foreign research collaborators**. Foreign researchers (especially from developed countries) collaborating with SSA researchers often have little understanding of the constraints facing their local counterparts. Many find it difficult to relate to the fact that electricity and internet availability are irregular and unreliable. When deadlines are missed by SSA researchers and these challenges are provided as the reason, researchers in the developed countries may find this difficult to believe. Similarly, requests from SSA researchers for the funding of basic services (which would normally be available in developing countries) are often treated with suspicion by their Northern research collaborators.

**An apparent lack of transparency in the allocation of aid to SSA research collaborators**. Some SSA researchers appear to be given preferential treatment by Northern research collaborators at the expense of their peers. Usually, those being accorded preferential treatment are established researchers that have made a name for themselves in their particular research area. In some instances, younger junior researchers submit rigorous research proposals capable of progressing through the competitive research selection process, but it is usually the more established researchers that are awarded. In practice, however, the work is ultimately done by the younger junior researchers, who are sometimes more knowledgeable and up to speed with new developments in research on the issues in question.

**Weak donor alignment in funding collaborative research**. SSA is a fertile ground for donors willing to fund research in diverse areas, ranging from medicine to the social sciences. Each of these donors has specific requirements that must be met. Sometimes these requirements differ, not just across donors, but also across research focus. In some instances, these requirements do not 'speak' to the challenges on the ground because the donors lack the contextual knowledge to understand the real issues. SSA researchers on the ground, on the other hand, usually have a better understanding of the issues. Donors, however, are often driven by their own interests – which could be political, economic or other related factors.

**Limited transfer of research skills from developed countries to SSA**. One of the key areas in promoting aid effectiveness, particularly in relation to research collaboration, is strengthening the research capacity and expertise of SSA researchers. The limited capacity of SSA researchers to conceptualize development

issues such as the SDGs, design research agendas that incorporate them, and develop appropriate methodologies, is a key challenge. Sometimes, this is exacerbated by mechanisms adopted by donor countries that encourages them to employ external consultants rather than train local researchers.

**Limited attention to collaborative research in South-South collaborations**. While there are plenty of examples of collaborations with Southern partners, especially China, there is little information or evidence of the results of these. Many Chinese researchers have come to Africa and a similar number of Africans have been invited to Chinese institutions for capacity development and research exchanges, but the focus of these has been more on training and financing rather than research, research publications, dissemination of findings and similar outputs. The language barrier is a possible explanation for the limited visibility of the research outcomes of collaborations between Chinese and SSA researchers.

## 4. OPPORTUNITIES FOR COLLABORATIVE RESEARCH IN SSA

**Global goodwill**. There is currently a global enthusiasm to help SSA countries attain sustainable development through aid and development effectiveness. The global initiatives on aid effectiveness are evidence of this interest. Through global institutions (e.g. the UN system; multilateral institutions like the African Development Bank and the World Bank; private development foundations like the Bill and Melinda Gates Foundation) concerted efforts are being made to lift SSA countries out of their current state of limited inclusive growth. These are major collaborative opportunities that can and should be exploited.

**South-South partnerships**. SSA countries currently enjoy a very strong relationship with their Southern peers, especially from Asia. Beginning with the Bandung Conference of 1955, Asian countries have demonstrated solidarity and a willingness to work with African countries as partners in tackling joint development challenges. Led by China in recent times, these Southern partners have committed billions of dollars in collaborations with African countries to tackle the key constraints to SSA sustainable development – which include poor infrastructure, a weak private sector and limited economic reform.

**Think tanks**. There are very few SSA countries that do not have at least one national think tank. This is evidenced by the 85 think tanks from 45 countries that attended the recent 2016 Africa Think Tank Conference in Marrakesh.[5] National think tanks have been established by SSA national governments to provide evidence-based research for policymaking. Some of these institutions, however, are not well equipped, and need to be strengthened to provide important services. Indeed, some of these institutions have started providing consultancy services as a way of raising money to finance their activities while undertaking their primary goal of supporting the national government. In many countries, the activities of national think tanks are

[5] http://www.uneca.org/stories/africa-think-tank-conference-kick-starts-marrakesh

complemented by private and university-affiliated think tanks that are equally active in undertaking collaborative research that could help increase the SSA voice in the global development agenda.

**Regional institutions**. The SSA region boasts several viable institutions capable of supporting the region's collaborative research needs, within the region or with global institutions. At the regional level, there are several disciplinary and multidisciplinary institutions with strong research capacity, capable of forging collaborative research with global institutions. Typical examples are the African Economic Research Consortium and the African Capacity Building Foundation. These institutions have a wide network, which includes individual global experts and reputable research institutions such as GDN, UNU-WIDER and renowned universities in North America and Europe. They are capable of tapping into these networks and developing collaborative research that would provide the continent with a strong voice in the aid effectiveness discourse and the implementation of the SDGs.

**Local expertise**. SSA has a large pool and a critical mass of research experts with sufficient capacity to forge effective collaborative research for sustainable global development. For instance, it has been estimated that between 1996 and 2012, research publications with at least one African author more than quadrupled from 12,500 to more than 52,000, and the continent's share of world scientific research articles almost doubled from 1.2% to around 2.3% (Schemm, 2013). This is a major asset waiting to be tapped. The interesting feature of this large pool of researchers is that a sufficiently large number of them are well-trained and confident, and have made a global reputation for themselves in their areas of expertise.

Several donors have explored the opportunities to forge collaborative research for aid and development effectiveness with SSA countries through the provision of financial and technical assistance to SSA. From fighting malaria and corruption to ensuring peace and security on the continent, bilateral and multilateral international organizations have promoted collaborative research in SSA. There is a large scope for donors to promote and improve aid effectiveness through collaborative research in SSA by leveraging the existing opportunities and creating new ones. The activities of some of the key donors involved in collaborative research for aid and development effectiveness in SSA are outlined below.

**UK Department for International Development**

The overarching goal of DfID's collaborative research is poverty reduction. The main objective is to ensure that research is directly relevant to human and sustainable development challenges. It aims to place evidence-based research that can inform policy at the disposal of policymakers and development practitioners. These collaborative research activities can be either demand-driven or supply-led. The common feature is that they focus on tackling development challenges facing SSA countries.

In education, and specifically for university collaboration and partnerships, several schemes have been established in research and teaching (see Smail, McCowan and

Rakodi, 2015). The most prominent ones are the Higher Education Links Scheme, the England–Africa Partnerships, the Education Partnerships in Africa, and the Development Partnerships for Higher Education (DelPHE). DelPHE provided GBP 15 million of funding between 2006 and 2013. Funded by DfID and managed by the British Council, with support from the Association of Commonwealth Universities for specific assistance on South-South partnerships, the collaboration achieved three main outputs. Firstly, a minimum of 20 MDG-related research outputs were produced from the partnerships, with a strong influence on local, regional and national policies. Secondly, over 120 departments across the collaborating institutions in the UK and SSA produced internationally-recognized research on the MDGs, and science and technology issues. Finally, at least 60 partnerships developed through DelPHE funding were sustained or will continue to be sustained for at least one year after completion of the DelPHE project.

**European Union**

Through the Joint African-European Strategic Partnership, the EU has developed several instruments for collaborative research with SSA.[6] A significant flow of ODA to SSA is channeled through these instruments. For instance, between 1960 and 2014, total bilateral ODA from EU to SSA amounted to USD 85.7 billion in constant 2013 rates, with a sizable proportion of this devoted to collaborative research. In 2011, an intra-regional research networking infrastructure MoU, worth EUR 14.75 million, was signed through the EU's EuropeAid Cooperation Office to support SSA collaborative research with the pan-European research network, GÉANT.[7] This makes the EU one of the biggest development partners for SSA.

One of the main EU operational instruments is the Pan-African Program, which forms part of the Development Cooperation Instrument (DCI) funded through a funding envelope worth EUR 845 million over 2014–2020 (CONCORDE, 2015). Key areas of collaboration include research, ICT, sustainable agriculture, higher education and the environment. To ensure effective funding of this initiative, several other complementary funding windows have been added. Prominent among these are the DCI thematic programs, the European Development Fund and the European Neighborhood Instrument.

Horizon 2020 (or H2020), which runs from 2014 through to 2020, with funding of around EUR 80 billion, is a framework for collaborative research between the EU and African countries (EC, 2011). It aims to pool research funding and coordinate

[6] These include ERAfrica, AU Research Grants, Horizon 2020; CN+, Research and Innovation Network for Europe and Africa (RINEA), Promoting African – European Research Infrastructure Partnerships (PAERIP), Climate Smart Agriculture sustainable intensification, and commissioned works through Directorate-General for International Cooperation and Development (DG DEVCO). Others are the African Peace and Security Agenda and Architecture, AfricaConnect, Food Facility, Research and Development Framework Programme, access to sustainable energy services, training for Election observers, and OpenAIRE.

[7] see http://www.africa-eu-partnership.org/sites/default/files/success-story-files/case_study_africa_connect_en_fin.pdf

national research engagements to promote aid effectiveness by avoiding duplicating efforts. The instrument aims to tackle some of the key challenges facing Africa – namely, the lack of sustainable and inclusive growth, and widespread unemployment. Grants are awarded through competitive open calls for proposals available to all nationalities. Its focus areas cover almost all the SDGs. A few of the calls include a EUR 1 million Horizon Prize low carbon hospital, a EUR 1.5 million $CO_2$ reuse Horizon Prize, and a Future and Emerging Technologies open call for research and innovation actions (EC, 2016).

ERAfrica is a knowledge partnership funded through the seventh Framework Program suite of European research initiatives. It aims to strengthen and promote equal partnerships and joint funding of intercontinental research collaboration, and technological development and demonstration between Africa and EU member countries. Its primary objective is to create a platform for a 'European Research Area Network' for the African continent. It provides funding support worth EUR 2 million for partnership governments, continental organizations and the private sector (Larsen and Weissgram, 2014). It provides a forum for collaboration among seven EU, two non-EU European countries, and three African countries – two of which are in SSA.[8] In 2013, calls for collaborative activities were launched in three thematic areas involving 15 funding parties from African and European countries, with EUR 10.7 million funds available (Larsen and Weissgram, 2014). The thematic areas were Renewable Energies, Interfacing Challenges and New Ideas involving collaborative research, collaborative innovations and capacity building. It is interesting to note that approximately 50% of the funding proposals were for collaborative research activities.

This intervention also includes several SSA-specific projects. Many of these involve funding clinical trials and research to prevent and treat malaria, HIV/AIDS and tuberculosis. Others involve environmental protection, sanitation, vaccine development, development of new or improved drugs, and e-science. For details on the specific achievements and success stories of the diverse projects undertaken under these collaborations, see EU (2015).

**USAID**

USAID is a strong SSA institutional partner for promoting collaborative research. USAID has highly ambitious goals for political stability, widespread development and economic prosperity for Africa. The institution is working in partnership with the region at continental, regional and country levels to improve the lives and general welfare of Africans and African society. The African Union and its predecessor, the Organization of African Unity, is USAID's partner at the continental level; an Ambassador was appointed in 2006 to work with experts from both institutions to forge, strengthen and nurture the relationship and determine its strategic direction.

[8] The seven EU countries are Austria, Belgium, Finland, France, Germany, Portugal and Spain; while the non-EU countries are Switzerland and Turkey. The three African partners are Egypt, Kenya and South Africa.

Through the AU, USAID is collaborating with other regional organizations, particularly the regional economic community institutions.

USAID has both continental and country-specific collaborative initiatives in SSA.[9] At the continental, regional and country levels, USAID promotes partnerships based on its philosophy that achieving sustainable solutions to global development challenges requires working in close collaboration with a wide variety of institutions and individuals. Its belief is that sustainable solutions are achievable only when the expertise of all stakeholders (public, private, CSO and individual) are harnessed and channeled toward a common goal. These partnerships at different levels are guided by distinct strategies. In Southern Africa, for instance, USAID has a very coherent collaborative strategy that aims to achieve a "more integrated region for an improved quality of life for Southern Africans" (USAID, n.d.:12). To achieve this lofty objective, the strategy is fashioned around four development objectives: increasing sustainable economic growth in targeted areas; reducing the impact of HIV/AIDS on the region; improving the rule of law and respect for human rights; and effectively supporting USAID missions and programs. In 2010 alone, over USD 2 billion was spent to prevent and combat the spread of HIV/AIDS (USAID, n.d.). An integral part of the objective is the facilitation of regional-level collaborative research in the areas of agriculture and climate change, with a view to supporting evidence-based policy advise for improved sustainable development outcomes.

Another interesting feature of USAID collaboration in Africa is its focus on the private sector. This type of approach is informed by USAID's conviction that the private sector offers significant and unique assets, expertise and resources that could be leveraged to find sustainable solutions to SSA development challenges. These types of partnerships are cost-effective and result-oriented, and have the potential to serve as a means of combining business and development objectives. Key areas of such collaborations include: agriculture and food security; energy access; education and youth development; health; climate change; water, sanitation and hygiene; financial inclusion and innovation; innovation and entrepreneurship; and inclusive development. In total, there were no less than 250 active public-private partnership projects ongoing in 2015, involving over 1,500 partnerships worth USD 20 billion (USAID funding, and leveraged public and private funds). For Power Africa alone, USAID has leveraged over USD 20 billion in commitments from private sector partners with over 4,000 megawatts of financially-closed power project transactions.

**Others**

[9] The US continental initiatives, most of which are implemented through USAID, include: US–African Cooperation in Advancing Gender Equality; US–African Cooperation on Food Security; US–African Cooperation on Global Health; U.S. Engagement on Climate Change and Resilience in Africa; The Doing Business in Africa Campaign; Powering Africa: Increasing Access to Power in Sub-Saharan Africa; Security Governance Initiative; U.S. Support for Peacekeeping in Africa; Investing in African Trade for our Common Future; U.S. Support for Democratic Institutions, Good Governance and Human Rights in Africa; Shared Investment in Youth; U.S. Support for Combating Wildlife Trafficking; and Partnering to Counter Terrorism in Africa.

The Global Development Network offers additional opportunities for forging collaborative research in SSA. It provides a channel for collaborative research in SSA on multidisciplinary issues related to both local and global development that includes natural resource management, health, agriculture, aid effectiveness, migration, gender, pro-poor growth, climate change, structural transformation, urbanization, water and sanitation, and education. From its inception in 1999, the institution has made over 4,000 grants to researchers in no less than 132 countries, many of which are in SSA. The institution has developed tailored collaborative research activities and programs. Prominent among these are the Regional Research Competitions, the Global Research Programs, the Global Development Awards and Medals Competition, and the annual global research conference. These programs have initiated thousands of collaborative research activities in developing countries, particularly in SSA. Since its establishment, GDN has greatly expanded the scope for collaborative research, with a strong foothold in SSA.

Through its own evaluations, GDN has established the impact of its collaborative research activities; these include policy influence, research outreach and professional visibility of developing country researchers. GDN's impact evaluation report[10] highlights the extent of the improvement in the capacities of researchers as a result of these collaborations. For example, 94% of the funded research is found to be of acceptable and publishable quality. Of course, many of these researchers were able to achieve this as a result of the collaboration, mentoring and quality assurance support provided through GDN.

## 5. WAY FORWARD AND CONCLUSION

From the literature and interactions with policymakers, it is obvious that collaborative research for aid and development effectiveness is still in its infancy in SSA and not yet a major priority, especially from the perspective of SSA countries. SSA countries, as the beneficiaries of aid, need to be more proactive in expressing interest in this area. Since the size of some SSA countries may be a constraint, they may need to unite to strengthen their voice and articulate their position on aid and development effectiveness issues. There are sufficient human and institutional resources and potential to succeed in this course. Size bestows a great advantage that should be leveraged. It is their future and they should feel strongly about contributing to shaping it. They should take the lead in building the capacities of researchers and institutions engaged in aid and development effectiveness research, demonstrate strong political will and leadership, leverage South-South cooperation, and consider creating national-level, independent institutions with an exclusive focus on aid and development effectiveness.

Regional SSA institutions (academic and research) should pay particular attention to prioritizing aid and development effectiveness collaborative research with a view to optimizing developmental goals. They should take the lead in setting the agenda for

[10] http://gdn.int/html/page11.php?MID=12&SID=40&SSID=82

collaborative research in priority areas because they are in a good position to understand the challenges by virtue of their location and years of work in the region. They should assume the coordinating role, drive the process and promote interdisciplinary and multidisciplinary collaboration – which has the potential to improve aid and development effectiveness, and build an effective strategic communication culture among all stakeholders.

Donors need to promote aid and development effectiveness by initiating aid and development effectiveness collaborative research. A sizable portion of their aid and other forms of available funding should be deployed toward promoting aid and development effectiveness. The misconception that SSA does not have sufficient local expertise should be challenged. Rather, donors should explore the potential of local expertise in driving collaborative research for aid and development effectiveness in SSA. Donors should promote effective coordination of this engagement through their existing institutions and frameworks developed for this purpose. They should avoid the practice of tied aid and promote collaborative research in SSA more actively and sincerely.

Overall, there is need for a concerted effort by all stakeholders to actively and genuinely promote collaborative research on aid and development effectiveness through incentive structures. The relationship between SSA researchers and institutions, and peers in other regions working on aid and development effectiveness collaborative research, should be further strengthened. Donor coordination mechanisms for collaborative research on aid effectiveness should also be strengthened. Constant evaluation of past aid and development effectiveness collaborative research should be effectively monitored and evaluated with a view to tracking activities and guiding them in the right direction.

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