Raising the Contribution of Research to Evidence Based Policy Making in Africa

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Introduction

It is a particular honor for me to contribute to the present volume. Professor Koester has been more than a teacher to me. In the far and cold North, away from home, he has been a source of encouragement and support in so many different ways. Beyond imparting knowledge to us, his academic influence on myself and his many other former students can hardly be overstated. In particular, his approach to the practice of science and his understanding of the role of the scientist could not be missed by anyone who sat in his famous coffee breaks even once. Both are reflected in the focus of his rich body of work, which always seeks to bring practical solutions to major societal problems resulting from a wrong, or the absence of a right, course of action by policy makers. That focus remains constant, whether he is dealing with problems at the national, regional or global level, and whether he is examining the critical role of trade for the livelihoods of smallholder farmers and low income households in Eastern and Southern Africa, or the struggle of devising the best common agricultural policy in Europe for farmers, consumers and the state coffers.

A volume on the role of science and the scientist in society is therefore an excellent occasion to celebrate Professor Koester's many achievements. I do that by reflecting on the role and contribution of the agricultural economics profession in dealing with the many challenges and opportunities facing African countries and communities. I build on the discussion of similar issues in Germany and Europe by the other contributors but approach the same questions from an angle that is more reflective of the African context.

Here, the near complete disconnect between research and policy is a major impediment for science and the scientists to play the role that is theirs. Why this is the case and how it can be overcome is the focus of the first part of my contribution. The second part of my contribution looks at the recent experience of attempts to bridge the gap between research and policy and promote evidence based policy planning and implementation through greater use of data and analysis in decision making.

The Disconnect between Research and Policy in Africa: Challenges and Opportunities

The scientist is before anything a citizen and member of society, ideally with an interest in finding solutions to the immediate challenges and taking advantage of the better opportunities facing society. In their contribution to this volume, Brockmeier and Lange describe at length the questions surrounding the role and contribution of science, obstacles and weaknesses related thereto and elements of possible solutions. Their discussion highlights the problems of further optimizing the operations of a mature science system in the context of a policy system that is sufficiently equipped to process and absorb scientific evidence and put it to use in guiding government action or action by other stakeholder organizations.

In situations where the quality of governance or public action is a main obstacle to social advances, then the contribution of the scientific community to society is not only measured by the technical content, quality and quantity of their work but more importantly by the influence and impact of such work on the quality and effectiveness of government action.

Therefore, from the viewpoint of the Global South and of African countries in particular, the challenges or missed opportunities reside more in the failure of science and policy making spheres to interconnect to overcome the considerable knowledge gaps that impede the quality and efficiency of government action and thus delay solutions to significant yet solvable societal problems. In such a context, efforts to improve the efficiency and productivity of the science and academic systems are less likely to contribute significantly to improved social outcomes resulting from improved governance and the delivery of public goods and services.

Connecting Science to Policy

The modalities of a well functioning science system, as defined by Brockmeier and Lange, would have to address the need for stronger connection between science and policy in a manner that increases the use of relevant scientific evidence in public decision making. The cooperation and complementarity that the authors call for among institutions of research and higher learning would need to be expanded to include the policy planning and execution system. The ultimate goal here is to better link knowledge demand to knowledge supply.

Interestingly, the causes of underperforming science systems identified by Brockmeier and Lange, such as incentive problems related to evaluation and ranking of academic performance and institutions of higher learning, are also at play in the complete disconnect between knowledge supply and knowledge demand spheres in Africa. On the demand side, the problems are less populist anti-science movements than weak accountability systems leading to less result based decision making and limited incentives to search for and use the best available evidence. On the supply side, researchers and scientists in Africa see greater value in responding to global agendas and in work leading to publications in international journals than in responding to domestic agendas and publications in local outlets. Criteria of success highlight H index or RePEC ranking but are silent on policy influence and impact. Yet there need not be any real conflict here. The skills and expertise needed to guide policy are the same as those needed to publish in professional journals. That is not where the problem is, however, for national scientists. It is rather the wrong assumption that work focused on guiding policy may not generate the output that would lead to such publications. They and many of their international colleagues fail to realize that grappling with the practical questions faced by policy makers provides a wealth of opportunities for innovative research and unique insights.

In sum, science systems and scientists in Africa face the same issues of relevance, quality and efficiency as their counterparts in Europe. They also face the challenge and opportunity to inform and guide decision making related to policy and program design and implementation in order to raise the quality and efficiency of public action. A major question for African science systems and scientists, in particular the agricultural economic profession, is what role they should play in facilitating evidence based policy on the continent.

Transition towards Evidence Based Policy and the Role of Research: The Experience of the Comprehensive Africa Agriculture Development Programme (CAADP) [1]

Qaim in his chapter assesses the role and contribution of research in advances on major development fronts over the last decades. He further lays out future opportunities that are unique to the field of agricultural economics and related sciences, particularly within the context of the Sustainable Development Goals (SDGs). The same opportunities exist with respect to the important goals and ambitions laid out by the African Union (AU) in the Africa 2063 agenda and more specifically in the Malabo Declaration of 2014 on Accelerated Agricultural Growth and Transformation.

The Malabo Declaration (AFRICAN UNION COMMISSION, 2014), adopted under the AU’s Comprehensive Africa Agriculture Development Programme (CAADP), specifies targets to be met by all 55 African Union member states in seven key areas: recommitting to the CAADP values of inclusivity and evidence based planning, boosting investments in agriculture to reach a budget share of at least 10 percent for the sector, raising the rate of agricultural GDP growth to 6 percent, ending hunger and halving poverty by 2025 through inclusive agricultural sector growth, tripling intra-African trade by 2025, and enhancing the resilience of livelihoods and production systems through adoption of climate smart practices. The last commitment area calls for strong mutual accountability (MA) to actions and results.

The first MA component includes the adoption of effective and inclusive joint sector review (JSR) modalities that allow government and non-state actor stakeholders, from farmer groups to private sector organizations, to assess and dialogue around policies and related outcomes. To date, around 30 countries have adopted improved JSR processes or undergone assessments as a first step to improved JSRs. The second component is a comprehensive Biennial Review (BR) that is mandated by Heads of States to cover all 55 AU countries on the basis of 40 target indicators. The inaugural BR report (AFRICAN UNION COMMISSION, 2017), including a scorecard rating each

[1] The Comprehensive Africa Agriculture Development Programme is an Africa wide agenda under the umbrella of the African Union.

country's performance against the seven Malabo target areas, was submitted to the Heads of State Summit of January 2018. A total of 47 countries completed that review.

The broad embrace under CAADP of evidence based policy and program design and execution, reflected in the MA ambitions above, has created an unprecedented opportunity to bridge the gap between research and policy, between knowledge supply and demand. The obligation to track and report against progress and performance as part of the JSR and BR processes has created incentives and raised the demand for data and analytical services. The other part of the equation is now for the supply side to seize the opportunity to master the capacities and find the right modalities to engage. The issues of relevance of scientific research and need for interdisciplinary and systemic approaches that are raised by Qaim are equally important here. To the complex web of linkages within food systems that motivates Qaim's statement are added another set of complexities linked to the interplay of policy relevance, influence and impact on policy making and outcomes.

Qaim rightly calls for adaptation of methods, publication culture and criteria for success to better position the research systems. As stated earlier, that may go a long way in raising the contribution and impact of science in the context where the policy making system has the capacity and modalities to access scientific evidence and put it to use in decision making. However, these changes are not sufficient in an environment suffering from weak linkages between research and policy. For instance, the many contributions listed by Qaim from renowned economists such as John Mellor and several others came during the first three decades of post-colonial Africa when countries were grappling with the search for effective development strategies. Yet, there is little evidence that that vast body of scientific production has been put to use anywhere in Africa during that time. This is because of the absence of the required institutional and technical capacities to access the evidence generated by researchers and translate it into changes in policy to produce impact and better outcomes.

What CAADP has done is to create the conditions for the supply of knowledge to connect with the demand for evidence in decision making circles. The greater use of evidence has enabled ministries of agriculture and the broader agricultural constituency to make a robust case for investment in the sector. The graphs in Figure 1 illustrate the gains in performance and improvement in outcomes associated with the implementation of CAADP[2]. Each of the graphs contrasts performance and outcome indicators between CAADP-0 countries that have not reached the first step in implementing CAADP - that is, the signing of a Compact specifying investment priorities, defining funding commitments and establishing partnership modalities between government, development agencies and key non-state actor stakeholder organizations - and CAADP-4 countries which have gone through all 4 steps of implementation.

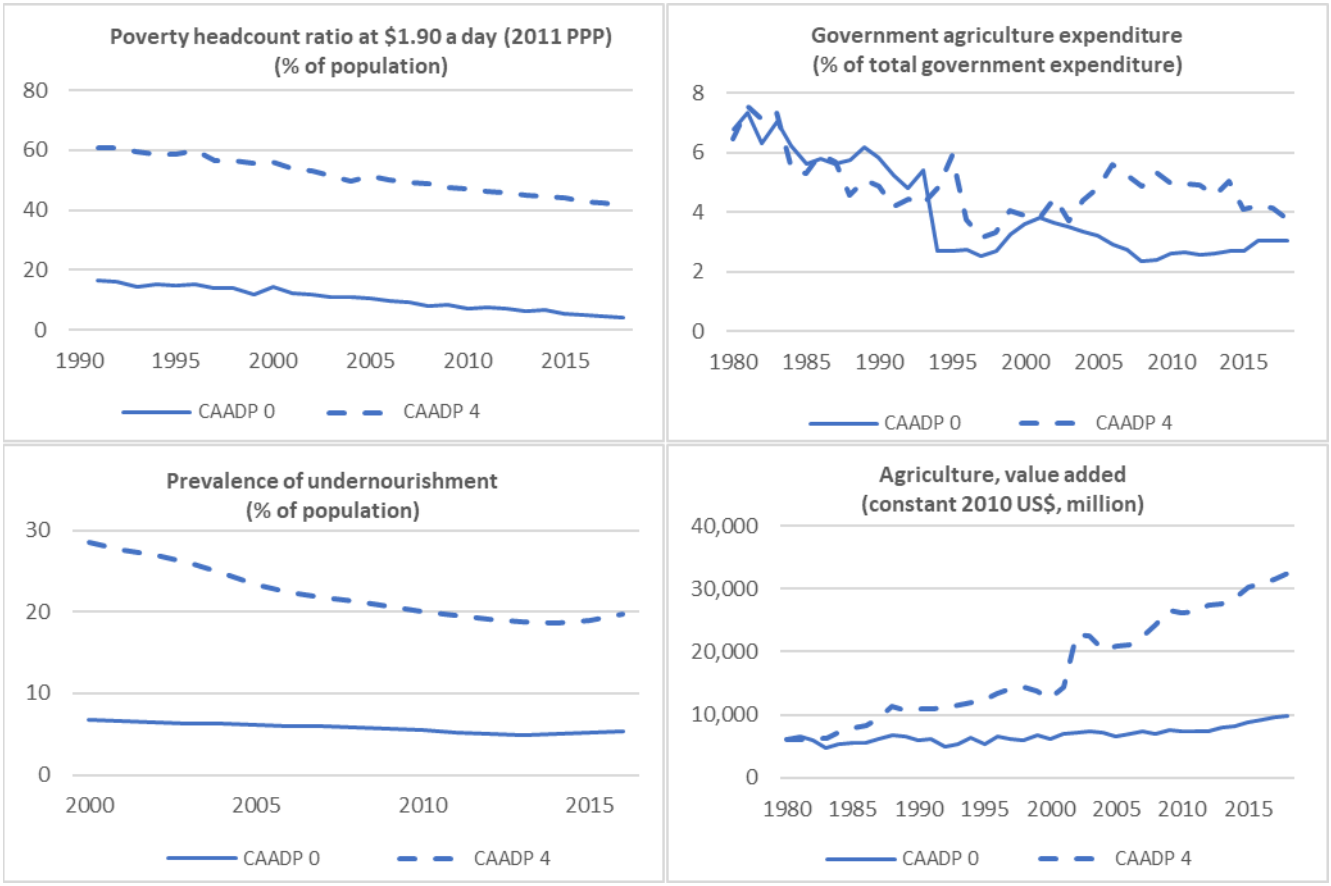
Compared to the 1990s, the share of agriculture in public expenditures nearly doubled during the 2010s. Most of that growth, however, took place in countries that have made the most progress in implementing CAADP, including the embrace of its evidence based review and accountability systems. The top right hand side graph shows the widening in annual agricultural outlays between these CAADP-4 countries and the CAADP-0 group. The same group also tends to do much better in terms of agricultural growth and nutrition outcomes and has seen a slightly faster reduction in poverty. While the improved performance in Africa has a lot to do with the major policy reforms that took place in the 1980s and 1990s, the evidence in Figure 1 suggests that CAADP with its emphasis on mutual accountability and evidence based policy making has helped sustain these reforms and allowed stronger response in implementing countries. How CAADP has contributed to linking policy and research is now discussed below.

The Infrastructure to Link Research and Policy under CAADP

Connecting research and policy systems in the African context required the forging of missing linkages at different levels and institutional innovation from several fronts in order to find a set of conduits to transmit the knowledge products and tools emanating from empirical research into policy and program planning and implementation processes (Figure 2). IFPRI's Africa program played a central role in facilitating the above institutional innovations through data and analytical support as well as capacity building to develop and deploy local expertise. There are three main connection points, represented by the cylinders in the middle of the diagram, where research and policy need to connect to pave the way for evidence use and thus influence and impact. The first are what I call

[2] See BENIN (2018) for a detailed evaluation of the impact of CAADP.

Figure 1. Selected Performance and Outcome Indicators



Source: ReSAKSS (2019)

“Carrier Policy Processes” or CPPs. These are major national or even regional and continental level policy and strategy initiatives and agendas with sufficiently large catalytic potential. They command strong political commitment from governments and receive significant attention from non-state actor organizations. The orientation, goals and targets defined here by governments and policy making organizations, as in the case of CAADP and the Malabo Declaration or the SDGs at the global level, serve as pointers to research and capacity development institutions to align their own portfolio of activities in order to respond to the resulting knowledge requirements.

Given the difficulty for thinly resourced and geographically dispersed research systems to respond to a continent wide agenda, one key institutional innovation under CAADP is the creation of the African Growth and Development Policy Modeling Consortium (www.agrodep.org) to facilitate response by local research organizations. Launched in 2010 and facilitated by IFPRI, AGRODEP seeks to create a critical mass of world class modelers that can help meet the data and analytical needs of CAADP. Through a series of calls for applications, an intense program of advanced training sessions and a variety of grants for research, collaboration and networking, the consortium has grown to more than 230 members from more than 30 countries. Members also have access to a library of diverse models, large data sets and a variety of technical guides and resources for use in their research activities. To qualify for membership, researchers have to have earned a PhD within the last 15 years at the time of application and demonstrate strong analytical skills. Moreover, members have to live in Africa and work for local academic and technical organizations.

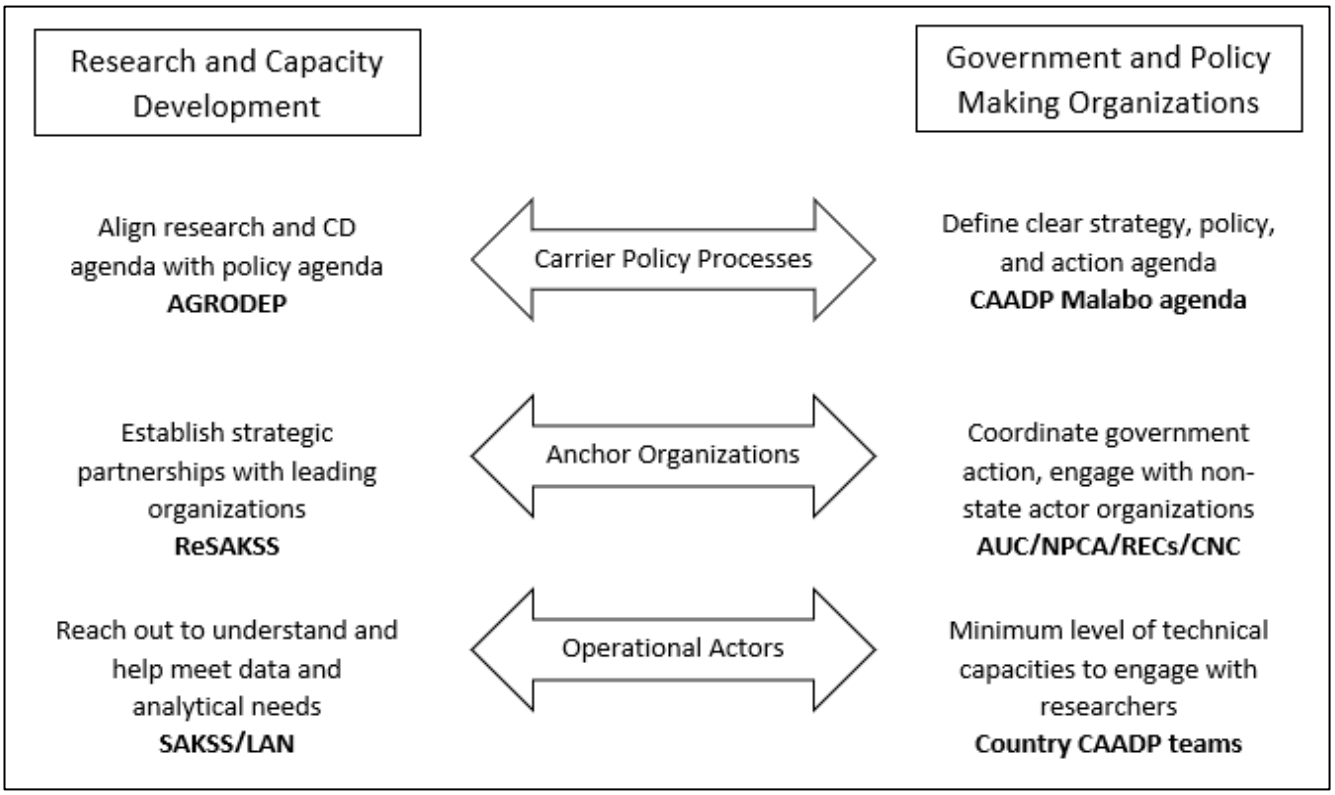
AGRODEP experts are now being deployed to support the preparation of national agricultural investment plans (NAIPs) that every country has to develop under CAADP. It uses a Toolkit developed for the purpose of clarifying the analytical needs of NAIPs and identifying methodologies and tools for use by local experts to meet such needs (AFRICAN UNION, 2018). AGRODEP members also provide data and analytical support to countries and regional economic communities for the conduct of country JSRs and the continental BR process. Over the last 2-3 years, AGRODEP, which now includes dedicated net-

works on impact evaluation, value chain analysis and the African Continental Free Trade Area (AfCFTA), has initiated collaboration with international research and development organizations to carry out research across African countries. The Africa Agriculture Trade Monitor (AATM), initiated last year as a response to the launching of the AfCFTA (BADIANE, ODJO and COLLINS, 2018), will now be published annually by AGRODEP.

The second important connection point between research and policy systems is around the “Anchor Organizations”. These are the various institutions charged with implementing or coordinating the implementation of CPPs, including non-state actor organizations, whether at the country, regional or continental levels. They play a critical role in the interaction between research and policy as intermediators for the expression of demand for and use of knowledge in decision making. It is through strategic partnerships with anchor organizations that research and other knowledge supply institutions can link up with the policy and decision making system.

Here again, it had become necessary to innovate institutionally in order to forge the required partnerships. The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) was established very early in the CAADP process in 2005 and, like AGRODEP, is facilitated by IFPRI’s Africa program. The role of ReSAKSS is to serve as a broker between knowledge generators and knowledge users. It operates through three regional nodes or teams based in Nairobi, Pretoria and Ibadan. Working in partnership with the respective regional economic communities, COMESA (Common Market for Eastern and Southern Africa), SADC (Southern African Development Community) and ECOWAS (Economic Community of West African States), ReSAKSS commissions work through local centers of know-

Figure 2. Aligning and Linking Research and Policy Systems under CAADP



Notes:
CD: Capacity development
AGRODEP: African Growth and Development Policy Modeling Consortium
ReSAKSS: Regional Strategic Analysis and Knowledge Support System
SAKSS: Country Strategic Analysis and Knowledge Support Systems
LAN: Local Analysis Network
CAADP: Comprehensive Africa Agriculture Development Program
AUC: African Union Commission
NPCA: Planning and Coordination Agency of the New Partnership for Africa’s Development
REC: Regional Economic Communities
CNC: CAADP Non-State Actor Coalition
Source: author

ledge to provide data, analytical services and capacity development in support of review, benchmarking and learning processes.

ReSAKSS uses several tools for the above purpose. This includes a set of interactive web-based tools to track and report against a large number of indicators across countries and at subnational levels (www.resakss.org). ReSAKSS also publishes, starting in 2009, the Annual Trends and Outlook Report (ATOR)[3]. The report, which is the official monitoring and evaluation (M&E) report for CAADP, is presented every year at an annual conference hosted by the African Union Commission and attended by representatives from governments, development agencies and non-state actor organizations. ReSAKSS activities also include the technical backstopping of country agricultural joint sector reviews and biennial review evaluation and reporting activities.

Finally, ReSAKSS works with ministries of agriculture to help establish country level Strategic Analysis and Knowledge Support Systems, or SAKSS. The SAKSS platforms, which are usually embedded within existing structures of ministries of agriculture, are now operational in around 20 countries. They play the same brokering role at the country level as ReSAKSS at the regional level. Through the establishment of Local Analysis Networks (LAN), they seek to mobilize and formally connect local centers of knowledge with the ministries of agriculture. The LAN supports data collection and analysis for the preparation of country investment plans and the implementation of joint sector review and biennial review processes, which are coordinated through the SAKSS node. The SAKSS are also in charge of managing the country eAtlas, a decentralized, GIS based online tool to store and access a large number of subnational data, including biophysical, crop and livestock, demographic, health and nutrition data. The country eAtlases are now available for two dozen countries (www.etlas.resakss.org).

The SAKSS operate at the level of the third and last connection point between research and policy, that of operational actors. It is here that individual researchers, such as members of the local analysis network, and officials charged directly with designing and executing policies and programs, for instance CAADP country teams, come into contact. In the most advanced countries, the SAKSS and CAADP country teams work synergistically and partly overlap.

The institutional innovations and knowledge infrastructure presented above are not working equally well for every country or region, but they have made a significant contribution in helping African countries transition to evidence based policy planning and implementation. As countries make progress in connecting research and policy systems, however, the issues of relevance, sustainability, as well as data and research quality and quantity raised by Brockmeier and Lange and by Qaim start to rise to the fore. The applicability to African countries of the lessons and findings presented in their respective contributions to this volume is bound to rise with time. As CAADP advances and the economic recovery of the last two decades proceeds, the cost of policy failure in terms of lost opportunity will increase rapidly. The role of research in preventing a return to the failed policies of the 1970s and 1980s becomes even more important.

Economic Recovery, Risk of Policy Reversal and the Role of Research

Underlying the performance of African economies under CAADP are the reforms that were adopted by countries to address the weaknesses in macroeconomic and sector policies that impaired growth and increased hunger and poverty levels across the continent (BADIANE and MAKOMBE, 2015; BADIANE and MCMILLAN, 2015; BADIANE, COLLINS, ULIMWENGU and DIAO, 2015). While good policies may not be the solution to every problem, we do know from the African experience that bad policies are a problem for everything else. Good policies are policies that are based on locally relevant evidence, have clear and measurable targets and milestones, undergo rigorous economic, social and environmental review, are adequately tracked and evaluated, and are open to inclusive consultations and dialogue.

Continuing on the road to better policies is therefore critical to sustaining and broadening the current recovery process and finally bringing hunger and poverty to manageable levels in Africa. A major contribution of CAADP has been its success in extending and protecting the policy renewal process over the last one and half decades. The lack of institutional memory, stronger fiscal positions from two decades of strong economic growth, more open and pluralistic political systems and rising populistic pressures are raising the risk of return to the failed policies of the 1970s and 1980s. The popularity of costly input subsidy systems,

[3] For examples, see WOUTERSE and TAFFESSE (2018) and DE PINTO and ULIMWENGU (2017).

the frequency of export bans, growing cases of price controls, the return of public agricultural agencies and even the talk of a developmental state are all signs pointing in the wrong direction.

Strengthening the role of research in informing policy options and helping chart the best course of action is one way of helping to avoid the adoption of costly and ineffective policies. Another option is to encourage learning and exchange between countries to compensate for the lack of institutional memory. The last addition to the CAADP toolbox, the Malabo Montpellier Panel (www.mamopanel.org), focuses on this area. The Panel, which consists of 17 African and international experts, seeks to promote learning and policy innovation at the top. Innovations at the ministerial level or higher are more likely to be adopted at scale and thus to be transformative. But because failure at that level tends to be politically and financially rather costly, leaders are often hesitant to engage in major policy initiatives.

Through peer learning and exchange of good practices at the highest level, the Malabo Montpellier Panel tries to encourage the adoption of successful policy innovations. The work of the Panel consists of selecting one of the strategic areas of the CAADP agenda as defined under the Malabo Declaration. It then identifies the 6 to 7 African countries that have the best performance in each area. Next, the Panel examines what these countries have done, how they have done that and why they have succeeded. The findings are summarized in three categories: institutional innovations, policy changes, and programmatic interventions, all areas of government action that can be adopted and imitated by other countries. The resulting report is presented and discussed at a ministerial level meeting organized by the related Malabo Montpellier Forum to encourage the replication and scaling up of good practices and success stories. The Panel produces two reports and organizes two Forum events annually.[4] In addition, it organizes webinars, two per quarter, for technical experts to exchange and share lessons on more operational aspects.

Conclusions

Science has been a major enabler of human development by helping find solutions to many of the old and new problems we have faced in the course of our history. Science's role and contribution depends on a host of factors within and outside of the science community. The most important of these, from the (growing) complexity of issues at hand to the multitude of factors affecting the performance of science systems and the public’s recent attitude towards science, have been discussed in depth by other authors in the current volume. The authors have also examined the associated challenges and opportunities, in particular as seen in the context of more mature science and policy systems.

These challenges and opportunities are even more pronounced in an environment where limitations related to resources, capacities and incentives are compounded by a sharp disconnect between science and policy making systems. The contribution of science to better governance and policy outcomes in these conditions requires more than efforts to raise the relevance, quality and quantity of scientific output. Additional efforts are required to innovate institutionally and forge bridges to facilitate the access to and use of evidence in policy design and implementation.

Experiences and lessons from efforts to promote evidence based policies and programs under the Comprehensive Africa Agriculture Development Programme of the African Union are used to illustrate how African countries are dealing with the above challenges. Several major institutional innovations focusing on enhancing data and analytical capacities, brokering access to and use of scientific evidence, and facilitating review, learning and benchmarking have allowed countries to better link knowledge supply with knowledge demand systems. The outcome has been a stronger positioning of and increased commitment to agriculture in national agendas, resulting in clear positive economic and human development impacts.

As encouraging as this may sound, there is no guarantee that the progress of the last 10-15 years in terms of improved economic governance and decision making in the agricultural sector and related outcomes will be sustained. The challenges and opportunities around the interface between science and policy systems may be even more important today than ever. The costs of policy failures in terms of missed opportunities are much greater in today’s context of grow-

[4] The following four reports have been published since the launch of the Panel in 2017:
Byte by Byte: Transforming African Agricultural Value Chains through Digital Technologies, June 2019; Waterwise: Smart Irrigation Strategies for Africa, December 2018; Mechanized: Transforming Africa’s Agriculture Value Chains, June 2018; and Nourished: How Africa Can Build a Future Free From Hunger and Malnutrition, December 2017.

ing economies than they were during the decades of crisis. The findings presented in this report provide useful guidance in terms of what can be done right in order to enhance the contribution of science to policy making and government action in general. This brings us right back to the core of Professor Koester's interest as a scientist and a teacher.

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