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AgriFoSe2030

Agriculture for Food Security 2030
- Translating science into policy and practice

SLU · Lund University · SEI · University of Gothenburg

A report from the AgriFoSe2030 workshop:

How to bridge policy and science: fostering dialogue between science, practice and policy

27th-28th January 2017 Nairobi, Kenya

The road to African food security: what role for science?

Despite more than a decade of high economic growth and promising development, food insecurity and climate change remain daunting challenges for much of sub-Saharan Africa (SSA). The United Nations estimates that SSA's population will rise from almost 1 billion today to approximately 1.4 billion by 2030 and 2.17 billion by 2050 (UN 2017). This rapid increase, combined with continued urbanization, changing diets, climate change and deepening scarcity of land and water resources, (FAO, 2011), will put new pressures on agriculture, but also create new opportunities.

Most food in SSA is still produced on smallholder farms relying mainly on family labour and smallholder farmers are usually poor and socio-economically vulnerable. Smallholder farmers account for half, perhaps as much as 80 percent, of global agricultural production (Graeub et al. 2016, FAO 2014). Transformation of family farms provide a potential to support local economies, particularily if such transformation is developed and combined with policies that support social and environmental protection (FAO, 2014).

A knowledge- and science-based transformation of smallholder agriculture is urgently needed to move away from subsistence farming and improve agricultural productivity and incomes without compromising environmental and social sustainability.

For this transformation to happen, there is a need to bridge science, policy and practice. Today, too much of the scientific knowledge being generated in SSA does not reach policy-makers and practitioners, e.g. farmers and agribusiness actors who could directly benefit from this knowledge. Similarly, scientists do not have enough knowledge about the needs of policy-makers and practitioners.

In order to identiy and concretizise some of these knowledge gaps and initiatite the work of establishing an arena where scientists, practitioners and policy-makers can share knowledge, the AgriFoSe2030 programme invited stakeholders from across SSA to participate in a workshop in January 2017 in Nairobi, Kenya.

The workshop

The AgriFoSe2030 workshop "How to bridge policy and science: fostering dialogue between science, practice and policy" took place in Nairobi 27th to 28th of January 2017. It brought together around 50 participants, including agricultural scientists, policy-makers, and representatives of agri-businesses, non-governmental organizations and policy studies networks.

Box 1 Key messages from the workshop

- Governments and academia in SSA should seek ways to improve capacity to collect, manage and share data and analyse crucial knowledge gaps for further research.
- Universities and research institutions in SSA need to encourage and help scientists to communicate their research findings to policy-makers, practitioners or media.
- Governments, donors and academia in SSA should seek ways to enhance partnerships, collaborations and dialouges between scientists, policy-makers and practitioners.
- Above mentioned collaborations and dialogues should be fostered through forums, networks, interactive mechanisms and interdisciplinary knowledge brokers, increasing support for co-creation of knowledge.

Participants shared their ideas and experiences regarding science communication and science-policy-practice dialogue in sub-Saharan Africa. Discussions identified knowledge gaps and key challenges facing African policy-makers and practitioners today, and how to address them. Furthermore they explored how AgriFoSe2030 could add value to ongoing work and strengthen policy dialogue and knowledge co-generation in the region.

A large part of the workshop was dedicated to three group work sessions, successively addressing the following issues:

- **What is the key problem in SSA** in communicating science and co-generating knowledge in support of transforming smallholder agriculture (from subsistence to sustainable commercialised farms) and ensuring food security?
- **How can we translate** science to support knowledge-driven decision-making?
- **What should be done** and how can programmes, like AgriFoSe2030, add value and strengthen policy dialogue and knowledge co-generation in the region? What ought to be done by scientists? What ought to be done by policy-makers? What ought to be done by practitioners?

The results of the group sessions and plenary discussions are summarized below. More detailed outputs are shown in Table 1.

Summary of workshop discussions

Key challenges

The workshop participants identified three major areas of challenges:

1. insufficient or inaccessible data
2. inadequate communications skills among scientists, and
3. lack of structures and opportunities for interaction between scientists, policy-makers and practitioners.

Data

Participants in the workshop stated that researchers need more support, capacity and time to collect, analyse and share data. Identified measures that could provide better opportuinties for this was e.g. to establish relevant and updated databases and open-access repositories for quality data. Universities and government institutions could also define

Box 2 The AgriFoSe2030 programme

The Agriculture for Food Security (AgriFoSe2030) programme, supported by the Swedish International Development Cooperation Agency (Sida), targets the UN Sustainability Development Goal 2 - “End hunger, achieve food security and improve nutrition and promote sustainable agriculture” in low-income countries. We synthesize and translate existing science into policy and practice, and develop capacity to achieve this.

For more information, visit:
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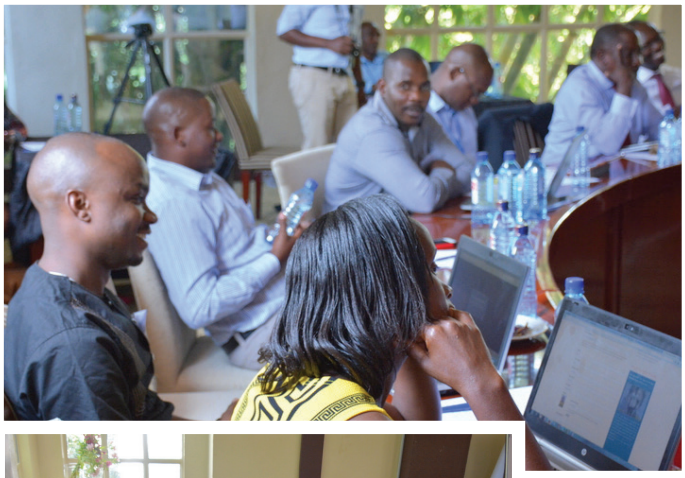
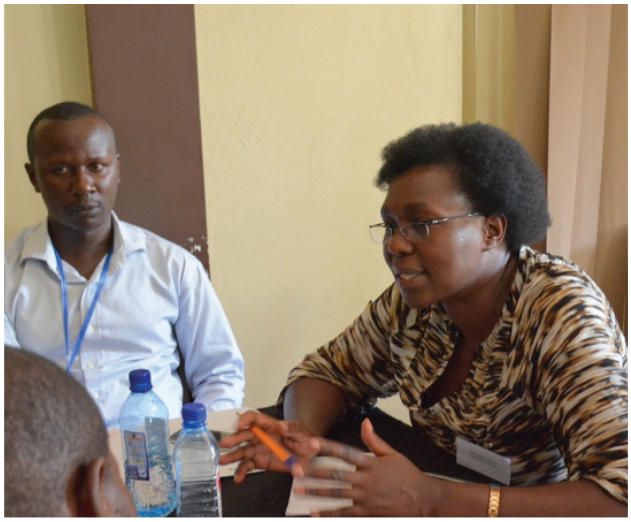
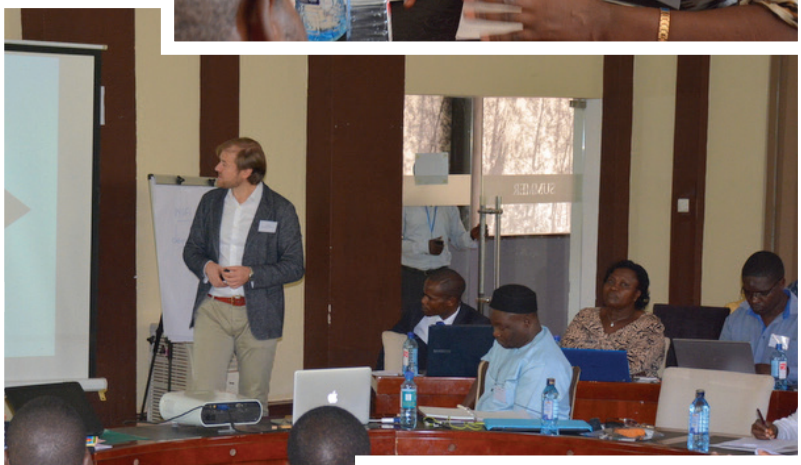
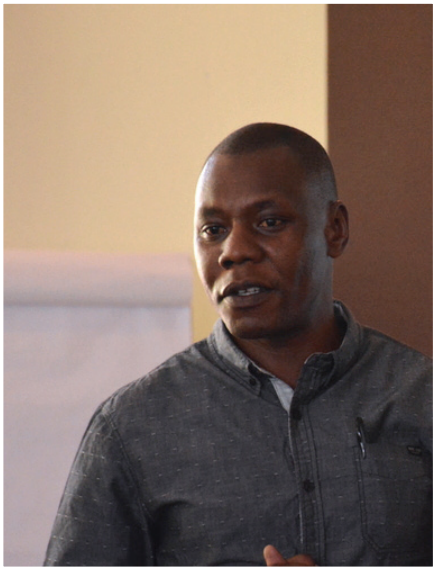
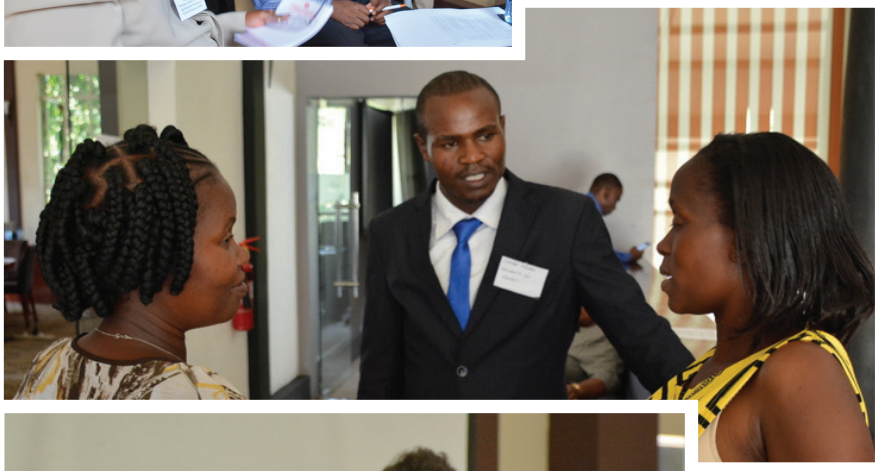
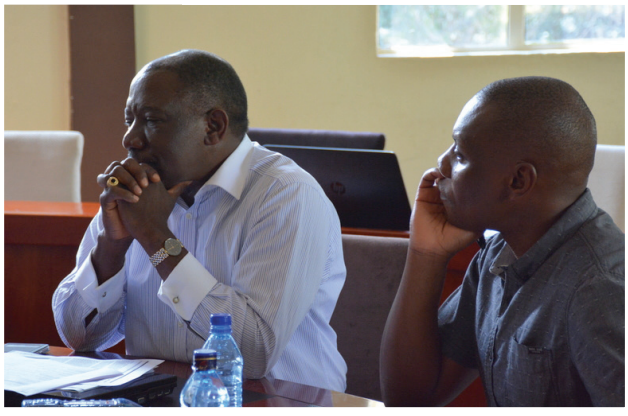







Participants during interactive sessions at workshop.

Photos: Anneli Sundin

policies together on how to assemble, structure and analyse data and cover knowledge gaps. It was concluded at the workshop that here, programmes such as AgriFoSe2030 can play an important role in developing capacity, guidelines, open access data initiatives and frameworks for sharing of quality data.

Communication skills
Many of the researchers at the workshop said that while their institutions have communication departments, these are generally small and lack the capacity and/or resources to train scientists to become better communicators. Participants suggested that universities should be encouraged to invest in science communication and create incentives for scientists to engage with policy-makers and practitioners. As part of this, researchers called for communication trainings to be embedded in masters and PhD programmes.

Participants also suggested that promotion criteria for academic careers could include science communication and engagement with various sectors in society, alongside academic merits. Other topics included how to give the media better access to scientific results and help them to communicate it; how to encourage journalists to engage and collaborate with scientists, for example joining field work; and the role communication ambassadors could play in helping universities with limited resources to communicate their science. Communication ambassadors are scientists who are good at packaging and communicating complex scientific reults, are active on social media and are willing to promote their own and their colleagues' research.

Structures and opportunities for interactions
Participants have observed that the agricultural science community in SSA tends to be inward-looking, rarely seeking to engage in policy dialogue or interact with policy-makers and practitioners. Participants also complained of the prevalence of silo thinking and a lack of interaction between various sectors and policy domains.

They called for platforms where stakeholders can interact with scientists and their research, and collaborate in generating knowledge. Such collaboration could occur in, for example, design of research studies and systematic reviews. Scientists, policy-makers and practitioners would jointly identify problems and what knowledge and data are required to support evidence-based decision-making and practices.

One concrete suggestion was to develop formal procedures for policy-makers to solicit input from scientists in support of knowledge-based decision-making, policy development and regulatory work. This would provide space for co-generation and could inform policy development. The participants also suggested that universities and research institutes should encourage research exchanges and internships at knowledge-brokering institutions, to familiarize researchers with the policy world and expand their policy networks.

It was also suggested that AgriFoSe2030, and programmes like it, could provide important input on how existing structures for science communication can be improved, and support these kinds of collaborative platforms and initiatives.

Concluding remarks

The transformation of smallholder agriculture in sub-Saharan Africa is complex and requires active contributions from academia, government, private, non-governmental, and development cooperation organizations.

A transformation agenda is needed that includes supportive government interventions and policies, institutional reforms, improved practices and massive long-term investments in infrastructure and human capacity. Such an agenda needs to be based on sound scientific knowledge, and tailored to country specific conditions in order to be fully effective. Functional knowledge support systems are critical in assisting sub-Saharan African countries to develop their own capacity to catalyse and govern this transformation agenda through informed decision-making.

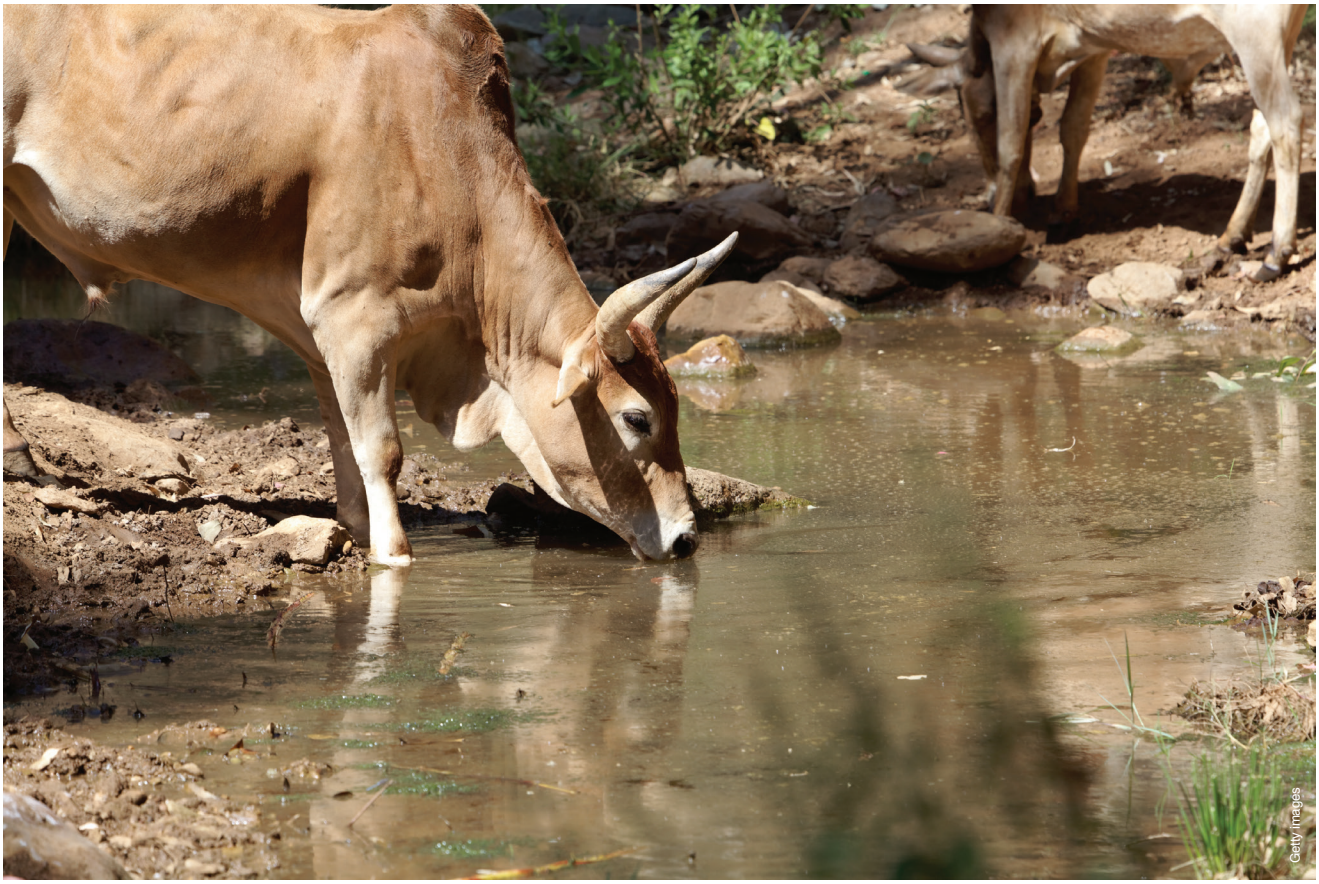
The AgriFoSe2030 workshop resulted in a set of recommendations that can stimulate and inform initiatives to strengthen scientists' dialogue with policy-makers and practitioners, and knowledge co-generation in SSA. These key recommendations are based on the last column in the table; "What can be done by different actors".

Table 1. Summary of group sessions and plenary discussion

What is the problem?	What needs to be done?	What can be done by different actors
1. Data availability *Today we have the following problems:* • Lack of data and knowledge gaps. • Data available and relevant but not accessible and/or fragmented. • Data available and accessible but reliability of data often questionable and even if quality is acceptable, data is often not in a form that is suitable for policy-makers or practitioners.	*To address the problem of poor availability of data/knowledge, there is a need to:* • Increase capacity and mechanisms to collect and analyse data and knowledge in a comprehensive and regular manner. • Build reliable and effective mechanisms for storing, managing and sharing information and data. • Establish open source data initiatives. • Collect valuable disaggregated data. • Analyse crucial data and knowledge gaps that require further research.	*At a regional, national and institutional level the following can be done:* **Regional, country and/or institutional initiatives** • Improve data collection and update current databases. • Craft research policies and mechanisms for universities on how to collect, store and share data. • Establish institutional data banks. • Establish open access repositories for quality data. • Undertake meta-data analysis and synthesize available data and provide. evidence-based knowledge for policy development and improved practices. **Programme initiatives (such as AgriFoSe2030) can add value through** • Developing capacity and comprehensive frameworks for collecting and analysing relevant data. • Developing guidelines and support for collection of quality data and open access data initiatives. • Support mechanisms, initiatives and efforts that link data and analysis in the region and build on synergies, e.g. African Observatory for Science, Technology and Innovation (AOSTI) at continental level and the National Bureaus of Statistics at national level. • Supporting efforts to consolidate collection and analysis of fragmented data. • Conduct data needs assessments by identifying knowledge and data gaps (relevant data either not accessible or collected).

What is the problem?	What needs to be done?	What can be done by different actors
2. Communication skills *Today we have the following problems:* • Scientists have inadequate skills to communicate the result and implications of their research. • Scientists often unwilling to communicate their research. • Translating scientific findings into knowledge and data in support of policy development and improved practices is challenging. • There is often a disconnect between policy-makers, scientists, practitioners (including farmers) and consumers. • Research and scientists seldom visible in media. • Communication of research findings and solutions seldom disseminated or packaged in appropriate formats or languages for policy-makers, practitioners or media.	*To bridge science, policy and improved practices, there is a need to:* • Train and empower scientists to communicate their research findings. • Connect scientists to policy-makers and practitioners. • Increase the understanding among scientists on how their work could support policy development and improvement of practices. • Change model of communicating scientific findings (e.g. linking research to SDGs, productivity gains and economic development) • Create interdisciplinary teams among scientists. • Build capacity among stakeholders to absorb data. • Adjust communication to various audiences, context and different levels of understanding, experience and languages. • Media and journalists to write more on science progress and its implications for improved policy and practices.	*At a regional, national and institutional level the following can be done:* **Training/training mechanisms** • Incentivizing universities and research institutions to carry out science communication and engage in dialogues on policy development and improved practices. This could be done through introducing communication performance contracts, communication requirements and involvement in public service commissions. • Creating incentives for scientists to engage with policy-makers and practitioners. This could be promotion criteria for academic careers which apart from academic merits also could be based on science communication, policy/practitioner engagement and societal engagement. Reviews of these promotion criteria could be made by the university senate on a regular basis. • Developing university curricula on science/policy/practitioner interaction and science communication. • Masters and PhD programmes to include science communication training and opportunities to put communication skills into practice, for example at conferences and stakeholder dialogues. • Professional scientific associations could offer communication training to their members. • Encourage scientists to in their research proposals show how their work will influence policy and/or improve practices and how their research findings will be communicated. • Universities making use of communication ambassadors, which are researchers active in public arenas, social media, communicating research done and translating complex data and scientific results into effective communication products. • Research councils and development agencies to require research proposals to include communication and policy/practitioner engagement plans. These institutions could also provide guidance, best practices and budgeting advice for more effective communication and engagement. • Scientists to use field sites and demonstration trails more openly and invite policy-makers, practitioners and media to visit these. **Involving media** • Enhancing quality of science journalism i.e. how journalists write about science. • Create a science journalism competition in combination with a travel fund for journalists to cover agriculture issues in the field to showcase opportunities and models of improved agricultural research coverage. • Scientist to engage with the media (including social media) more actively to communicate their science. • Involve journalists and media to improve timeliness and targeting of science-based information, adjusting message and information packages to various audiences, such as smallholders, extensions services or agribusinesses. • To encourage media engagement and media coverage mechanisms such as funds for journalists to join or carry out field trips which could be built into project funds. Such media coverage could also be funded through independent funds administered for example by a government department. • To ensure that research is communicated effectively, communication products and messages could be tested on various stakeholder groups. This may involve translating complex information into messages more easily understood. e.g. through graphics, blogs, videos, radio, TV, e.g. *ShambaShapeUP* in Kenya.

What is the problem?	What needs to be done?	What can be done by different actors
3. Lack of collaborative design/ co-generation of knowledge *Today we have the following problems:* • Scientists often working in silos. • Scientists seldom engaged in dialogues with policy-makers and practitioners. • Lack of platforms for collaborative design of research and co-generation of knowledge. • Lack of actors involved in knowledge brokering across sectors, disciplines and between scientists and society. • Silos in policy-making and. that linkages between government, ministries, agencies, inter-sectoral mechanisms for knowledge sharing are lacking • Inadequate ability of policy-makers/civil servants/practitioners to absorb, understand and utilize scientific data and knowledge. • Limited funding opportunities for capacity building and short-term internships, exchanging scientists and civil servants.	*In order to increase collaborative design/co-generation of knowledge, there is a need to:* • Engage stakeholders throughout the knowledge development process. • Enhance partnership and collaboration among scientists, policymakers and practitioners. • Support interactive mechanisms linking scientists with stakeholders, farmers, NGOs, private sector, policy-makers, scientists, and funders • Establish appropriate communication platforms for scientists and stakeholders • Create forum(s) for scientists to regularly communicate/evaluate/ • synthesize research issues and building synergies with stakeholders and society • Support interdisciplinary knowledge brokers to facilitate co-generation of knowledge and information packaging. • Support a collaborative design of research and systematic reviews whereby scientists, policy-makers and practitioners jointly can identify problems, knowledge and data requirements that could support evidence based decision-making and improvement of practices.	*At a regional, national and institutional level, the following can be done:* **Ways of working** • To make collaborative design of research and co-generation of knowledge a more common feature in research projects through the creation of interdisciplinary project teams. • Universities, research organizations and scientists developing their ability to communicate and interact with the society, through mechanisms gathering input and feedback from policy-makers and practitioners into their research processes (e.g. through knowledge fairs inviting the private sector, farmer based organizations, and entrepreneurs, to conduct dialogues on their research work). • Supporting existing networks and knowledge broker actors (e.g. KIPPRA in Kenya) in their efforts to facilitate interdisciplinary network meetings and supporting government agencies, technical units and parliament bodies with knowledge-based information. • Research institutions/universities to develop data bases on key contacts (e.g. government officials, practitioners) simplifying stakeholder mapping, continuous dialogue and communication. • Development of formal and public mechanisms and standard procedures for soliciting input from scientists in support of knowledge-based decision-making, policy development and regulatory work. This would strengthen mechanisms for collaborative knowledge co-generation, transparent adjustment of policy and improved practices and learning from new knowledge and impacts of current policy implementation. • Initiatives such as AgriFoSe2030 can support policy-makers (e.g. Members of Parliament, MPs), civil servants (technocrats and people who formulate technical documents) and practitioners to articulate and communicate their specific needs for knowledge and data, foresight studies, risk analysis, etc. • Initiatives such as AgriFoSe2030 can support a mapping/stock taking of existing national structures for science communication, dialogue and co-generation of knowledge, with a view on how these structures could be strengthened. • Visualizing the importance of science-policy-practitioner linkages, and build capacity on how to strengthen the linkages/bridges/ connections between researchers and society. • Develop, support and strengthen interactive and inclusive platforms and dialogue fora for national and local issues on food security, poverty reduction, agricultural productivity, value chains, environmental sustainability, through strategic initiatives (such as the Swedish/Sida supported SIANI). • Scientists to engage in stakeholder forums to give overviews of current knowledge and developing a common understanding of agricultural data needs and define a shared research agenda on filling knowledge gaps. • Coming up with a scorecard on the severity of agricultural/food security issues (e.g. land, finance, access to markets, etc.) and showing whether policy is addressing these adequately. These different scores can be indexed and scaled. • Establishing thematic groups of researchers, policy-makers, practitioners on specific issues or areas (e.g. development of national agricultural strategies, gathering of critical data prior to a complex decision-making processes). **Funding and creating collaborative design/co-generation of knowledge** • Informing research councils and funders of research work on the importance of science communication, dialogue and co-generation of knowledge with the aim for funders to encourage researchers to include collaborative designs in their research proposals". with • Support partnerships and institutional relationships including short-term research exchanges and internships. This would include training for scientists in local knowledge brokering institutions such as KIPPRA and TEGEMEO in Kenya or in CSOs such as the East African Farmers' Federation. Such mechanisms may also involve extension officers/agents, who need to be more closely connected to current agricultural research and innovations with the aim to ensure that local extension services are science-based.



Suggested reading

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