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Exploring the Futures of Agricultural Research and Innovations (ARI) Systems in Africa

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Abstract

For many African countries, the structure of the economy is still tilted towards agriculture and agro-allied industries. In recent times, investment in agriculture is being championed as one of the key routes to bolstering African economies, providing jobs for the burgeoning youthful population, and lifting many Africans out of poverty. However, the form of agriculture that will deliver these lofty goals (ambitious outcomes) cannot rely on the typical way agriculture has been, and is being practised, in many parts of Africa. It will have to draw heavily on locally relevant, sound science based, and well adopted agricultural research and innovations, tailored to African contexts. In this paper, drawing from the outputs of a foresight workshop by African agricultural experts, we explored the plausible futures of agricultural research and innovations in Africa. In the end, four future scenarios of African agricultural research and innovations derived from the combination of dominant drivers as conceived by African experts are presented.

Keywords: Foresight, Agricultural innovations, Research, Futures, Africa.

Introduction

Africa is undergoing many transformations in its bid to catch up with other regions of the world. With technological advances and new knowledge that are democratizing access to information and other vital resources, African economies are being restructured – even as they expand (Leke & Barton-WEF, 2016). Nevertheless, agriculture remains very relevant for African economies, and agribusiness is being pushed as a viable sector to absorb the growing youth demography. The population of African youth age between 15-35

years according to the African Union, make up about 35% of general but a disproportionate 60% of the unemployed population (AUC, 2015; ILO, 2013; Lohento & Ajilore, 2015). The proposition of using the agricultural sector as source of solution to the social, economic and governance problems emanating from the demographic change is largely facing its own constraints. The logic behind the proposition of youth engagement in the agricultural sector stems from the popular data and mantra that 60% of the population in Africa derive their livelihood from the agricultural sector (World Bank, 2013a), which was based on the Africa rural population, a variable that has changed significantly over the years. Observations and various analyses over time have shown, that agriculture in Africa will need to evolve to a higher level of productivity to be able to attract and retain many of Africa's youth, between 10-12 million whom enter the labour market yearly (ILO, 2013). Consequently, the future of Africa and its prosperity is seen to be linked to the future of its agriculture. One key issue, among many others, is the need for more affordable scientific innovations that improve productivity and sustainability, while ensuring growth and profitability. For this to happen, agricultural research and innovations in Africa must not only address the present challenges of agricultural development but also explore and propose solutions to the possible future challenges.

The State of Agriculture in Africa

Agriculture in Africa has attracted much scientific inquiry in recent past; the sector has also attracted the interest of the development actors across the globe and the regional economic organization in Africa and beyond. The agricultural sector is besieged by a handful of issues that affects its stability and productivity. Being an old ancient source of livelihood, especially in Africa, the sector has suffered lack of coherent scientific and policy attention which is mainly responsible for low total factor productivity.

The agricultural sector has largely not been able to cater for the food need of the population leading to huge food importation bills from the different countries on the continent, this is disturbing considering the fact that as at the year 2013, 70% of the Africa population live in the rural areas and 30% of the total GDP is derived from the agricultural sector (World Bank, 2013b). In addition, agricultural production per capital has decreased consistently in Africa in the last 30 years, although production itself has increased but not at the same pace as population growth. (Haggblade & Hazell, 2010; Sason, 2012). Figure 1. Indicated growth in the agricultural sector and its relationship with the population growth rate

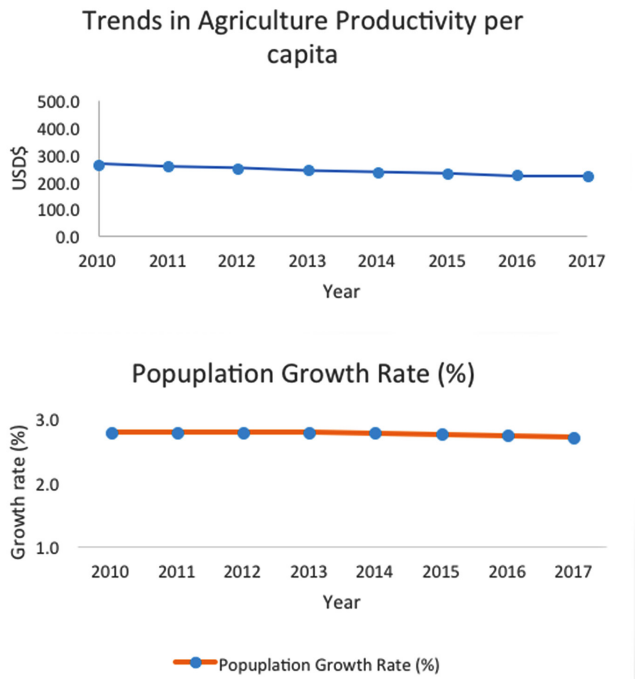

Figure 1. Aggregated agricultural growth rate per capital and the population growth rate

The growth in agricultural total factor productivity has been at a low at continental level, reflecting the inability of change under the current circumstances (Table 1)

Table 1. *Agricultural total factor productivity growth in eight Africa countries. (Source: Roe, Smith and Tambi, 2016)*

Country	Agricultural total factor Productivity Growth	Years to Double	Doubling year
Burkina Faso	0.017	41.4	2051
Cameroon	0.023	30.4	2040
Malawi	-0.029	-	-
Morocco	0.019	36.8	2047
Nigeria	0.039	18.4	2028
Tunisia	0.014	50	2060
Uganda	0.014	50	2060
Zambia	-0.016	-	-

The low productivity at the farm level is largely preventing interest in the sector which will only support sustainable livelihood if it operated in a business mode. Efforts to run Africa agriculture as a business includes policies that channel investment into research actions as well as the provision of needed infrastructure to ensure the development of the value chains. The mass engagement of the youth in agriculture will only be functional where production is profitable and engagement along the value chain is fruitful.

A study that investigated the status of agricultural research and innovation systems in 13 countries across all the sub-regions of Africa in the last 20 years showed that the generation of agricultural technologies and innovations in Africa is still very low compared with other regions of the world. The study which considered the level of innovations and development of new technologies across 9 broad sub-sectors of agriculture (including cropping, livestock, fisheries, processing, value chain management, natural resource management, finance/market, governance and others) found that more that seventy percent (71%) of the overall innovations focused on one sub-sector – cropping (PARI, 2016). Also, among the countries studies, there were huge disparities.

One of the major reasons for this is the limited financing available for innovations and development of new technologies for agriculture in Africa. On the average, Africa spends just 0.4% of its relatively small GDP on research and development (UNESCO, 2011). This is across all sectors of the economy and agriculture often take even a really tiny slice of this limited funding.

Exploring the plausible futures of agriculture and the drivers of agricultural systems, among many other advantages will help to better tailor limited funding for research and innovations to evolving trends and pathways. Also, it will empower other stakeholders and end users of agricultural innovations and research products – such as farmers, processors, agribusiness entrepreneurs etc. – to better identify their own innovation needs through participatory foresight and anticipatory systems.

Role of Foresight in Fostering Africa Agricultural Growth

Understanding the plausible futures and the roles of Africa research and innovations (ARI) systems achieving sustainable and profitable agriculture in Africa is a central pillar of the Science Agenda for Agriculture in Africa (S3A)[1]. Foresight is seen as playing three crucial roles:

1. Through foresight, agricultural research and innovation can be made more responsive to future agricultural development needs in Africa. Especially, agricultural research institutes (ARI) will become more responsive if their stakeholders are more pro-active i.e. prepared, willing and empowered to take actions towards the future they want.
2. As "a systematic, participatory and multi-disciplinary approach to explore mid- to long-term futures and drivers of change", foresight provides space for different stakeholders and experts for systemic thinking and developing anticipatory knowledge. It explores future changes by anticipating and analyzing possible future developments and challenges both qualitatively and quantitatively, and supports stakeholders to actively shape the future vision for today strategies and actions.
3. With back-casting, foresight exercises will be used to generate pathways leading to the elaboration of an overarching strategic vision to which the different stakeholders in the agricultural development space in Africa can have a shared sense of commitment. (FARA, 2016)

Understanding plausible futures of agriculture and harnessing the knowledge to influence or shape agricultural development discourses and policies (and to guide the implementation of policies) will require a critical mass of a new generation of African agricultural scientists, research and development experts, innovators and policymakers with the ability to combine forward thinking and strategic foresight with their engagements. Building the capacity of this new set of agricultural development futurists that will embed futures thinking into their respective agricultural research and development roles, is important and urgent.

Building Africa Research and Innovations Systems Scenarios Through Foresight Analysis

To better understand the future of agricultural research and innovation systems and also start building foresight capacity of key stakeholders, FARA organized a foresight workshop in 2018. The objectives of the workshop is to (1) To develop the foresight capacity of a new set of agricultural professionals in Africa and explore the future roles of agricultural research and innovations in the implementation of the Science Agenda. (2). To establish an Africa Foresight Academy to serve as a platform for forward thinking and foresight in agriculture exchanges and discussion in Africa, and for the training of new foresight in agriculture experts. (3). To establish a long term, growing community of foresight experts who are able to provide future-smart contributions to policy and apply strategic foresight in the implementation of the Science Agenda for Agriculture in Africa (and other relevant agricultural agendas) at regional and country levels.

The workshop used the Participatory Prospective Analysis (PPA), a co-elaborative scenario-based foresight technique that builds on the La Prospective approach (Bourgeois & Jesus, 2004). It is method that has been adopted and used by GFAR over the years, and it puts a lot of emphasis on effectiveness, inclusion, relevance and capacity development of the participants – through the process of learning by doing. In addition, for the results, emphasis is on consistency, reproducibility, transparency and plausibility (Bourgeois et al., 2017).

The workshop was implemented as a 5-day learning-by-doing sequence of collective work and took place in Accra from 12-16 February, 2018. The training targeted 16 participants mostly young and middle-aged agricultural development and innovations professionals/stakeholders in Africa. The rationale for this was to focus on agricultural research and development professionals who still have a good number of active years in the field and also have more stake in the future. This will help in building a more sustainable foresight academy in agriculture and a network of futures literate agricultural development professionals in Africa.

Among the participants were researchers, agribusiness entrepreneurs and consultants, seed certification and control professionals; and other experts in agricultural communications, agricultural financing and cooperative development, youth in agriculture issues, knowledge management, project monitoring and evaluation, programme management, policy research and experts from ministries of agriculture. 8 out of the 16 participants were women.

The selected participants were trained in the use of participatory foresight method for visioning and implementation of agricultural development programmes that keyed into the Science Agenda for Agriculture in Africa (Bourgeois et al., 2017).

Defining the foresight Analysis System

Clarity on the purpose and focus of the work to be done is of great importance. Participants need to understand the scope and limits – such as geographical and time limits – of the system which they will be exploring at the beginning of the foresight exercise. The questions what, where, when and who need to be answered before proceeding to the main exercise.

For this workshop, it was agreed that the system being explored in the futures of the agricultural research and innovations (what) in sub-Saharan Africa (where), looking at the plausible scenarios that could have emerge by the year 2030 (when) and what plausible roles various stakeholders such as farmers, researcher, policymakers etc. (who) could be playing in the system at that time based on the different pathways considered.

Identifying and defining the forces shaping the future

Having defined the system, the next step in the PPA method is to identify the forces of change that have been driving or have the potential to drive of influence the system. Forces of change were divided into internal and external forces, with a focus on internal forces – i.e. those forces that is within the sphere of influence of stakeholders in the system. Participants at the workshop identified 56 forces shaping the future, under broad categorizations of social, technological, environmental, economic and political forces.

Thereafter, the forces identified were defined. Definitions are clear and concise and were agreed to by all participants through a consensus building process before acceptance.

Table 2. *Forces of change and their definitions*

Name	Definition
	SOCIAL
1. Perception	Attitudes, believes and opinions of a particular group towards agricultural research and innovation
2. Women and youth inclusion	Equitable inclusion of all (gender and age groups) relevant stakeholders.
3. Cultural diversity	Interaction among different socio- cultural groups in a common geographical entity.
4. Population	Number of people living in a particular place (geographical location) at a particular time.
5. Migration	Migration is the physical movement of people from one geographical location to another
6. Indigenous knowledge	Non – Conventional science knowledge – in the Africa context
7. Literacy	Ability to receive, process, understand and use information and knowledge products towards agricultural research and innovation
	TECHNICAL/TECHNOLOGICAL
8. Availability of technology	The existence of relevant technology for agricultural research and innovations
9. Cost of access to technology	Cost associated with ensuring that a particular technology is available and accessible to its relevant users Access: Availability, Affordability and effective use of new technology by its relevant users
10. Technical capacity and development training	Ability to generate and harness the technical knowledge
11. Knowledge transfer	Sharing intellectual resources
12. Attitude to technology	Response and reaction to the use of technology
13. Intellectual property right	Ownership and control over a particular innovation
14. Access to technology	Availability, affordability and effective use of technology
15. African authentic technology	Technology designed and implemented successfully by Africans

16. Research and innovation funding	Availability and accessibility to finance resources allocated to agricultural innovation research by government and other fundersi.e. public and private funding.
17. Data / privacy	Ownership and control over data handling and utilization
18. Information knowledge management/data management	The collection, processing and effective use of data or information
19. Mechanization	Use of machines and systems to achieve desired result
20. Alternative /emerging / complementary tech	New, emerging and non-mainstream technology
ENVIRONMENTAL/ECOLOGICAL	
21. Access to climate information	Judicious and effective utilization of natural resources
22. Bio-diversity	The existence and interaction of flora and fauna in an ecosystem
23. Pest and diseases.	The control and prevention of disease causing organisms
24. Land availability	Existence of land for use and appropriation
25. Waste management systems	The structure and measures for effective control in the use and disposal of waste
26. Climatic condition	Natural elements that can affect productivity
27. Land use pattern	The way land is distributed and used in a geographic area
28. Water management	The mechanisms of effective utilization and conservation of water resources
29. Soil Management	Measures of sustaining productivity of soil
30. Weather	Natural element that can affect productivity
ECONOMIC	
31. Human resources	Availability of and access to productive human engagement
32. Standard of living	The level to which an individual or group of people can have their need and wants met
33. Market trends and systems	Patterns of demand and supply of agricultural products and services
34. Cost of living	The expense involve in maintaining a certain standard of living
35. Infrastructures	Facilities that enhances and strengthens (mediate) productivity
36. Access to Input	Ability to obtain and utilize inputs
37. Taxation	It is the system of collecting levy on income generated
38. Access to market	Facilitation of linkages between buyers and sellers of agricultural products and services
39. Market supply	Interactions of policies, institution, and other actors or players in the economic exchange (of agricultural products and services)

40. Cost of production	The expense involved in making available goods, services or research and innovation products
41. Intellectual property law	Set of rules that guide and protect the exclusive right of ownership of a particular innovation
POLICY AND POLITICAL	
42. Land tenure system	System of land ownership in a particular country including access, control and transfer
43. Regulations	Set of rules and norms that guide the operations of agricultural research and innovation systems
44. Policy integration	Level of interaction among interrelated policies
45. Political will/leadership	The extent to which policy makers are committed to develop and implementing policies that support agriculture research and innovation
46. Farmers' rights	The extent of freedom and level of protection within which farmers can conduct activities beneficial to them
47. Policy implementation	Concrete actions of putting policies into practice
48. Advocacy	Systematic campaign to raise awareness and influence policy agenda to influence change
49. Government/systems of governance	Administrative and political structure of a country (Including African Tradition)
50. Bi-lateral relationship/ relations	Conduct of Political, economic and social relations between countries
51. Political Atmosphere/ environment	Current situation of political affairs affecting the people at any giving period of time in particular country
52. Stakeholders' relations	State of political, economic and social relations among stakeholders in agricultural research and innovation systems

Structural Analysis and Measures of Mutual Influences

The next step after identifying and defining the forces of change is the analysis of mutual influences between the identified forces. This work consisted of an evaluation of the direct influence of each force on each of the other forces in the system. The existence or absence of direct influence between forces results in a classification of forces contributing to "structure" the system.

It is for this reason that this work is also called "structural analysis". Understanding the relationships between forces is an important component of the co-elaborative scenario building work because it allows both to understand the drivers of the system and in which direction it moves. It also allows the participants to understand the nature of interactions at work and relationships between the essential components of the system from a dynamic point of view.

The structural analysis is done through a binary scoring system (0:1), indicating indirect or direct influence, which are then entered into a structural analysis software (designed by Bourgeois

and Jesus, 2010) which quantitatively measures the mutual influences of the forces and provides the basis for ranking the most influential forces within the system.

Results

Unveiling the driving forces

The driving forces are the forces which are the most influential, the strongest in the system. They are called driving forces because the way they may change in the future will orient the system in a specific direction. The identification of the driving forces is a crucial step in this scenario building process because these forces are used to build the frame of the scenarios. This step aims at identifying the type of transformation that could take place in the future in relation to each selected driving forces. Each driving force can evolve in different directions leading to a specific state in the future. These states will be used in the next step to produce plausible scenarios.

The selection of the driving forces by the participants take place after the analysis and discussions of the measurements of direct, indirect and total influence are completed.

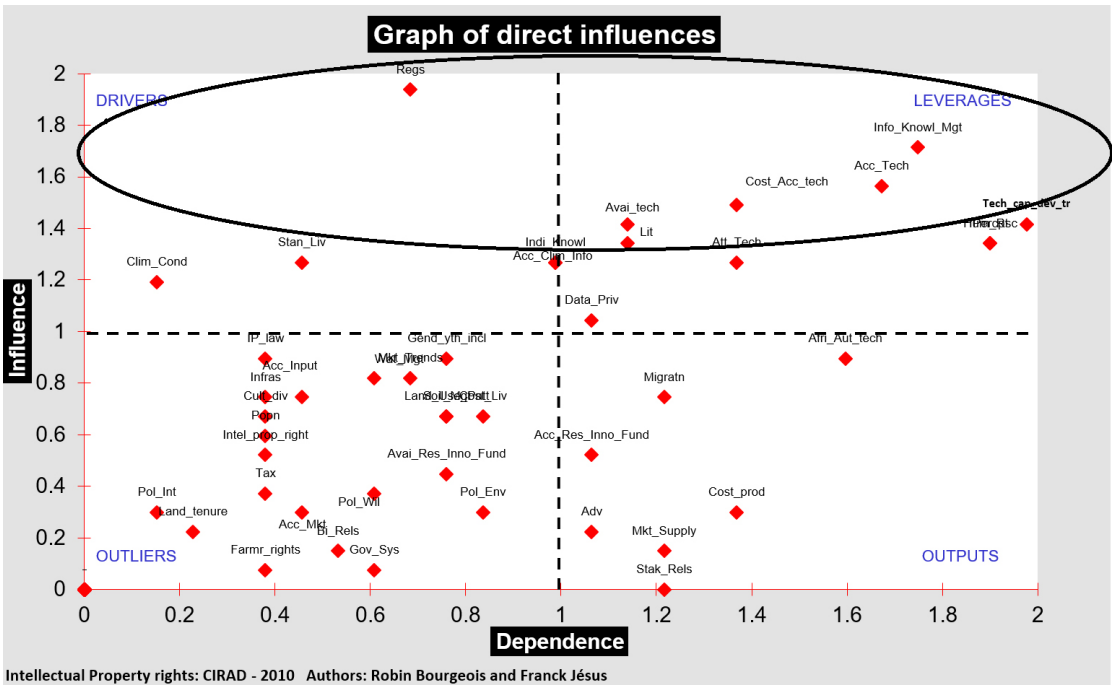

Figure 2. The graph showing the level of direct influences of forces of change in the system

Output

Participants selected 6 driving forces. These included a) regulation b) access to technology c) information & knowledge management d) literacy, e) available technology f) technical capacity. The plausible future states of these forces were then used to build scenarios for the future agricultural research and innovation in Africa.

Table 3. *Most influential driving forces in the system.*

Force number	Force	Definition
43	Regulations	Set of rules and norms that guide the operations of agricultural research and innovation systems
14	Access to technology	Availability, affordability and effective use of technology
18	Information Knowledge Management/Data management	The collection, processing and effective use of data or information
7	Literacy	Ability to receive, process, understand and use information and knowledge products towards agricultural research and innovation
8	Available Technology	The existence of technology
10	Technical Capacity	Ability to generate and harness technical knowledge

Table 4. *Plausible future states of forces of change of the agricultural research and innovation systems*

Forces of change	Plausible future states of driving forces			
A. REGULATION	**Adaptive/fair regulation** *In 2030, regulations governing agricultural research and innovation (ARI) systems are fair and equitable*	**Rigid regulation** *Regulations governing ARI systems are rigid and not evolving*	**Ineffective regulation** *Regulations governing ARI systems are ineffective, unenforced and redundant*	**No regulation** *There are no regulations governing ARI systems*
B. ACCESS TO TECHNOLOGY	**Inclusive access** *Affordable, easy and socially acceptable access to technologies that aid ARI systems and technological products of ARI systems*	**Centralized and exclusive access** *Centralized access to ARI technologies; only few have access to ARI technologies and their products*	**Disrupted access** *Interrupted access to ARI technologies as a result of conflict, or other disruptions*	**No access** *No access to ARI technologies*
C. INFORMATION KNOWLEDGE MANAGEMENT	**Open access** *Information and knowledge products from ARI systems are shared and available to whoever wants access e.g. online*	**No access** *Information and knowledge products from ARI systems are limited to those who generate the products*	**Restricted access** *Information and knowledge products from ARI systems are shared and available with restriction e.g. paywalls*	

D. LITERACY	**Total literacy (everyone is literate)** *All stakeholders within the ARI system, including farmers, are literate*	**No literacy (No one is literate)** *None of the stakeholder within the ARI system, including farmers, is literate*	**Limited literacy (Only few are literate)** *Only few stakeholders within the ARI system, including farmers, are literate*	**Only women are literate** *Only female stakeholders within the ARI system are literate*	**Only men are literate** *Only male stakeholders within the ARI system are literate*	
E. AVAILABLE TECHNOLOGY	**Advanced and user friendly** *Available ARI technologies are state-of-the-art and easy to use*	**Obsolete** *ARI technologies are old and outdated*	**Rudimentary** *ARI technologies are very basic*	**Complex(not user friendly)** *Available ARI technologies are complex and not user friendly*		
F. TECHNICAL CAPACITY	**Total capacity (everyone is skilled)** *All ARI stakeholders are skilled and technically capable*	**No capacity** *No ARI stakeholder is skilled and technically capable*	**Limited capacity** *Few ARI stakeholders are skilled and technically capable*	**Unexploited capacity** *ARI stakeholders are skilled and technically capable, but cannot use their skills and technical capacity*	**Only woman have technical capacity**	**Only men have technical capacity**

Scenarios

Workshops participants identified a number of compatible states of the forces with which they build a number of scenarios. As there was limited time to finalize this aspect of the workshop, a number of scenario narratives were proposed in their unrefined forms. We have tried to refine the four of the proposed scenarios which are consistent to the overarching views of the participants at the workshop about how the future of agricultural research and innovations may unfold in Africa.

Scenario 1: The African Big Bang

***Future states*: Adaptive/fair regulation, inclusive access, open access information and knowledge products, limited literacy, availability of advanced and user friendly technologies, limited technical capacity.**

In 2030, regulations governing agricultural research and innovation (ARI) systems are in Africa fair and equitable. This is as a result of an increasing open access to information and knowledge which improves the literacy of stakeholders in agricultural research and innovations space – though still at limited level – and enhance their ability to advocate for better policies and implementation from policy and decision makers. Because, policy makers are held more accountable, the quality of policymaking and implementation for agricultural research improves and fosters an enabling environment for the advancement of agricultural research and innovations that are relevant to the needs of stakeholder in the sector. Also, open and inclusive access to information and better sharing of knowledge products unleash the production of a host of advanced, fit-for-purpose and user friendly agricultural research and innovations that are easily accessible to users, despite their limited technical capacity.

Consequently, this will lead to affordable, easy and socially acceptable access to the agricultural technologies that will aid the diffusion of technological products. Available ARI technologies will be state-of-the-art and easy to use. Information and knowledge products from ARI systems are shared and available online to whoever wants to access them.

Even though only a few stakeholders within the ARI system, including farmers, are literate, this will not impact on the strength of the system itself. In conclusion, the few ARI stakeholders who are skilled will use their technical capability to bring about innovations that drive forward agriculture in Africa.

Scenario 2: From Malabo to Accra

Future states: **Adaptive/fair regulation, inclusive access, open access information and knowledge products, total literacy, availability of advanced and user friendly technologies, total technical capacity.**

By the year 2030, regulations governing agricultural research and innovation (ARI) systems are adaptive, fair and equitable. African ARI policy and decision makers become more accountable to the stakeholders and implement the commitments of the Malabo Declaration, by increasing funding to agricultural research and innovation systems towards significantly reducing hunger and poverty, improving agricultural stakeholders' livelihoods and African economies – as result of boosting trade of agricultural commodities. Due to increased funding to the ARI systems in Africa and inclusive and adaptive policies, coupled with open access to information and knowledge production and data sharing among ARI stakeholders, there is proliferation of relevant, advanced agricultural research, innovations and technologies in Africa. Access to ARI technologies and their products also become affordable, easy to use and socially acceptable.

All stakeholders within the ARI system, including farmers, are literate as a result of a combination of policies that build their capacity and empower them, a democratized and inclusive access to information, open access to new and existing knowledge, and access to the technologies that significantly improves their productivity, reduces the drudgery associated with farming and frees up significant time for to engage in learning and build their own capacity. Thus, all stakeholders including farmers are skilled and technically capable in deploying ARI technologies.

Scenario 3: The Road to Sambisa

Future States**: Ineffective regulations, disrupted access, restricted access to information, limited literacy, complex technology, limited capacity**

In 2030, regulations governing ARI systems are ineffective, unenforced and redundant. This is due to resource conflict situations, such as farmer-herdsmen and territorial conflicts, that broke out as a result of past rigid/no regulations and poor management of policies which have thus rendered governments ineffective and unable to enforce any of the current regulations. There is disrupted access to the limited technology available to ARI stakeholders and the available technologies are complex, not user friendly and not fit for purpose. There is diminished technical capacity of ARI stakeholders who are unable or find it very difficult to access new information and knowledge products in order to improve their own capacity, because of the restricted access to information and the disruptions to normal life.

Scenario 4: Every man for himself (Isolated islands of capacity)

Future States: **Rigid regulation, centralized and exclusive access, no (or exclusive) access to information, only men are literate, complex technology, limited capacity**

In 2030, regulations governing ARI systems are rigid and not evolving as a result of closed and exclusive systems that centralize access to technologies and give preferential access. Only few privileged groups have access to ARI technologies and their products. Information and knowledge products are closed off and limited to those who generate them, limiting cross fertilization of knowledge and hampering creativity and innovations in ARI systems. Women are structurally excluded through low literacy and capacity. Overall there is limited capacity in the system as the

exclusionary tendencies ensure there is limited or no capacity building to replace aging stakeholders and to transfer skills and knowledge and ensure sustainability. As a result, available technologies are too complex for the current stakeholders and not relevant to their limited skills and capacity. Few ARI stakeholders have adequate skills and capacity and the close access means they are hardly sharing their capacity nor the products their skills with others.

In the end, farmers will continue with ARI technologies that are old and outdated, and the system stagnates and atrophies.

Conclusion and Way Forward

It is clear that that Scenario 2: From Malabo to Accra is the desired future scenario. What is not very clear is what it will take to get there. Political will, will be crucial. This will mean implementing the Malabo declaration that seeks to increased funding for agriculture to at least 10% of the government budget and accelerate agriculture GDP growth by 6%. Central to this objective will be an increased focus of ARI systems as the key vehicle for achieving these objectives.

African agriculture is going through transformations – with an increasing need for relevant research and innovation – and requires anticipation and foresight tools to better shape its futures. Participatory foresight techniques such as PPA offer the opportunity to explore the futures of the agriculture research and innovations in a multi-stakeholder setting through diverse perspectives of multiple actors. Exploring future trends through the interactions social, technological, environmental, economic and political forces shaping agricultural and innovation systems in Africa provides robust views of how the futures may be shaping up. However, understanding that the agricultural research and innovation systems in different countries of Africa are at different levels of development and thus not homogenous is important. Indeed, different scenarios as envisioned by the stakeholders can actually manifest in different countries of Africa, or within different regions of a country, at the same time. Therefore, the scenarios put forward are to facilitate dialogues and discourses around agricultural research and innovations in Africa, their drivers and plausible directions.

The shaping of better futures will also require this new generation of African agricultural scientists, research for development experts and innovators with futures literacy to start embedding forward thinking and strategic foresight into their work. The group will form the core of the emerging Africa Foresight Academy – a regional platform for foresight exchange and discussion on futures of agriculture in Africa. As part of its main constituencies and a key stakeholder, the Global Forum on Agricultural Research (GFAR) supports the Forum for Agricultural Research in Africa (FARA) in its work that focuses on driving agricultural transformations in Africa.

To this end, GFAR and FARA have collaborated to establish the Africa Foresight Academy in agricultural development that will support the ongoing transformation of agriculture in Africa with foresight knowledge through futures literacy outputs that will help policymakers and agricultural development and innovation stakeholders to better understand the drivers of the futures and identify potential leverages for policies. The academy, whose founding members came out of the workshop, will engage in strong advocacy, based on foresight knowledge outputs, and lead discussions on the futures of agriculture at different levels – regional, sub-regional, national and subnational – to facilitate the agricultural transformation process across Africa.

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Endnotes

1. This Science Agenda is an Africa-owned agenda for the mobilization of science for the improvement of the livelihoods of the majority of African farmers and agribusiness entrepreneurs, and a drive towards a coherent investment in agricultural development. The Science agenda has been developed by the Forum for Agricultural Research in Africa (FARA), which is the overarching body with the mandate to drive the agricultural development agenda of the African Union (FARA 2014)

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