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Innovations for delivering agricultural advisory services to farmers to enable them make smart decisions

Introduction

The first logical step in deliberating on the topic would be to enjoy mastery in understanding and appreciating of how the new normal would present itself, in what fundamental ways would it differ from the current dominant state of affairs and what it would entail in terms of impacts.

Using food systems as a point of entry, it is obvious that COVID-19 has caused disruptions in food supply systems – production, trade,

markets, etc. – putting the agri-food sector under an extremely stressful situation. It has exposed vulnerabilities of socio-economic systems, negatively impacting jobs, incomes and livelihoods. It has put serious strain to access to farm inputs, services and markets – which was already a challenge in rural Africa. With prolonged disruptions, the more vulnerable farmers, small-scale producers, rural women and youth are likely to be impacted more. The majority of rural communities and producers are not always well informed and supported; there is need to ensure that they have access to basic services and accurate information during this unprecedented crisis.

The COVID-19 situation has also exposed a deficiency inherent within in agricultural advisory services. There were some manifestations of these including:

- (a) It is ‘farm production-centric’ stance – the new normal demands it to offer a much broader range of services - farmers are increasingly part of value chains that extend from inputs supply to consumption of nutritious and healthy foods. Agricultural advisory services need to partner with several other actors, not just linkage with research. Covid-19 is primarily a public health concern – the new normal demands agricultural advisory services to adapt agri-food systems to such health concerns. More information is required as farmers may need to adapt their farming systems to the impacts of the pandemic;
- (b) Its exclusive public sector-dependence: In Africa public extension systems dominate. In other regions they evolved and have taken pluralistic systems, where services are provided by different actors - from centralized top-down systems to more delegated systems – the ‘new normal’ demands such a shift towards pluralistic systems.

(c) It is often sluggishness towards embracing change – the ‘new normal’ demands it to be more anticipatory taking into account the future outlook – global economic downturns and recessions, reduced flow of foreign assistance, etc., but also recognize the rapid pace of change involved, which require even much faster pace in actions for recovery and building back better.

The good news is that mechanisms to support smart decisions are available, including provision of data and evidences and innovative solutions.

Enabling innovation systems to deliver agricultural advisory services to rural producers

The key objective is to achieve a well-functioning, dynamic and demand-driven agricultural advisory services that can play a critical role in the multi-stakeholder processes which facilitate innovation. We need to consider at least three inter-related imperatives.

First is the need to design and operationalize agricultural advisory services as an integral component of the Agricultural Innovation Systems (AIS). The issue is beyond technology dissemination and research-extension linkages. Rather it is about wider provision of support and inclusive services as well as partnerships among a wide range of actors in the innovation system and along the value chains. In effect, it is about activating a network of actors or organizations within the AIS and promoting customized technologies and practices suitable for location specific contexts.

It is also essentially about going digital: digital tools and technologies enable information flow in spite of physical distancing and mobility constraints – using accessible digital tools (e.g., mobile phones, knowledge management platforms and e-extension); as well as emerging technologies (such as blockchains, AI, and internet of things).

The second is related to the need to innovate from within to ensure an effective and efficient response to risks of crises (such as the COVID-19 pandemic). Such innovations include strengthening the coordination and governance mechanisms of the pluralistic AIS made up of public and private actors, producer organizations, farmer groups and networks; advances in digital extension, while using all available and accessible information channels; and facilitating and entering into partnerships with many (often non-traditional) actors in the agricultural innovation system. Let us also not forget that farmers are constantly innovating in their battle to cope with crisis situations. The effort therefore requires building on such local innovations and capacities through effective engagement of the AIS actors.

And third, generating effective demand for agricultural advisory services, towards a sustainable demand-driven agricultural advisory services. Agricultural advisory services are traditionally supply oriented, rather than demand driven. Where public funding is dwindling

or missing, the systems tend to collapse, raising serious questions of sustainability. For example, there could be real opportunities to smallholder farmers offered by high value agricultural markets. However because smallholder farmers individually often lack access to capital, information, technologies and relevant infrastructure, they do not benefit from such opportunities.

Two complementary changes are required in this respect: (a) first is to organize and conduct agriculture as viable business activity; and the second is to strengthen collective actions of producers. Assisting smallholder farmers to establish and sustain viable, effective and inclusive organisations, can be a game-changer. Institutional innovations can significantly improve smallholder farmers' access to markets and services for inputs and outputs. Through such innovations of empowerment, effective demand for agricultural advisory services could be generated and sustained – the issue of having it to singularly depend on public funds would be reduced.

Evolving roles of agricultural advisory services during the 'New Normal'

All of these changes mean that providers of agricultural advisory services will have to increasingly take on new, non-traditional roles and functions. In the context of COVID-19 these may include providing targeted advice and information on suitable technologies for food production, labour-saving technologies, information about locally available inputs and varieties and market information; facilitating linkages with other actors to arrange smart transport to markets, purchase of inputs, community seed banks, etc.; train agribusinesses or producer organizations in online marketing techniques using ICT (training online or with safe distancing); collaborating with health workers, raise awareness on COVID-19 and on preventive measures, distribute safety equipment and hygienic products etc.; assist rural producers and mediate for conflict resolution and help resolve tensions among the producers, pastoralists; and providing feedback to policy makers and research on issues arising on the ground.

What this means is that the design and operationalization of demand-driven agricultural advisory services along the agri-food value chains require a shift from purely hard-technical approaches to also include organizational, cultural and social aspects. Digital technologies are now increasingly accessible and are being used by agricultural advisory services providers to reach smallholders and family farmers. Traditional agricultural advisory services are not well-prepared and equipped to meet this challenge. It requires enhanced capacities of agricultural advisory services to address all these requirements because they need to be equipped with a whole set of additional knowledge, skills and attitudes – to conduct their business.

Examples of what FAO has been contributing to support AIS

The Food and Agricultural Organisation (FAO) provides an extensive repository of good practices and technologies as part of its online knowledge portals, which can be easily adopted to respond to the needs of AIS. These practices and technologies have been applied and tested on the ground and packaged for the benefit of various AIS actors. It also provides policy guidance for reform of AIS – to manage the design and implementation of an effective reform of national AIS (in more than 30 countries).

FAO assists national agricultural advisory services to advance the digital agriculture transformation through two main path-ways (a) by enhancing the delivery, scope and impact of agricultural advisory services for smallholder farmers through digital innovations, including both emerging technologies and accessible digital tools; and (b) by strengthening capacities of agricultural advisory services and farmers to contribute effectively to the digitalization of agri-food systems considering potential risks and opportunities. An example in this case: together with Pennsylvania State University, FAO developed a smartphone app known as FAMEWS (Fall Armyworm Monitoring and Early Warning System) as a key tool, available in 29 languages, that channels valuable real-time and field-level information about the pest's location and spread to a global data platform every two hours, while also giving smallholder farmers specific tips on how to cope with and contrast infestations.

FAO's response strategies for the African agricultural sector to the current COVID-19 pandemic is anchored on its COVID-19 Response and Recovery Programme: entitled Transforming Our Food Future, which has seven pillars – addressing immediate as well as medium and longer term response: (a) Global Humanitarian Response Plan: addressing the impacts of COVID-19 and safeguarding livelihoods in food crisis contexts ;(b) Economic inclusion and Social Protection to Reduce Poverty: pro-poor Covid-19 response for an inclusive post-pandemic economic recovery; (c) Boosting smallholder resilience for recovery: protecting the most vulnerable, promoting economic recovery and enhancing risk management capacities; (d) Preventing the next zoonotic pandemic: strengthening and extending the One Health approach to avert animal-origin pandemics; (e) Trade and Food Safety Standards: facilitating and accelerating food and agriculture trade during COVID-19 and beyond; (f) Food systems transformation: building back better during response and recovery; and (g) Data for Decision Making: ensuring quality data and analysis for effective policy support to food systems.

This is our thirteenth issue in a series of articles we are releasing as part of our RUFORUM Thought Pieces on the Corona Pandemic. This Thought Piece is part of the discussion Issues presented by the author during the 4th RUFORUM Webinar on “[Delivering food for Africa in a transforming agri-food system in the 'new normal'](#)” You can get more information about RUFORUM at www.ruforum.org. You may also share your thought piece about the Pandemic with us by writing to e.adipala@ruforum.org and copying m.agenam@ruforum.org

About the Author

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Haile-Gabriel holds a Doctorate and a Masters' degree in Agricultural and Rural Development from the International Institute of Social Studies (ISS) in The Hague, the Netherlands, and a Bachelor of Science degree in Agricultural Economics from the Alemaya (now Haramaya) University in Ethiopia.