Policy Brief

Revitalizing the extension system in Ghana

Recommendations for enhancing the role of communication and information

December 2019

Summary

The extension sector in Ghana is evolving, with opportunities to make extension services more inclusive by improving the manner in which information is delivered to farmers. This policy brief explores how pluralistic approaches would support the development of a more inclusive service, through: i) an improved ratio of extension officers to support to farmers; ii) effective delivery of information through production of consistent content from different actors; iii) and use of targeted communication channels and feedback loops.

Within the development of the government and private sector services there is the opportunity to:

- achieving gender balance in the recruitment of extension staff;
- building district level teams of multi-skilled generalist extension officers, supported by ad hoc trained specialist extension officers;
- moving away from blanket agronomic recommendations;
- enhancing delivery of extension messages through ICT and e-solutions, provided that implementers consider uneven and unequal access to technology among farmers.

Introduction

This brief is designed to support the current work being undertaken by the Government of Ghana to enhance its ability to serve farmers with a fit for purpose extension service. The demands on the service are growing. There is the need for a wider range of requirements beyond traditional agronomy services to include nutrition and nutritional security, marketing and post-harvest value additional and a desire to be more inclusive of both women and younger farmer who can be under-represented in the current service. Yet, there is the need for advisory services more tailored to farm an farmers' characteristics.

Within this context, the government is exploring new, more pluralistic ways to develop extension services.

The government of Ghana's Food and Agriculture Sector Development Policy (FASDEP) has been in place since 2002 to support the modernization of the agricultural sector. It was followed by FASDEP II (MOFA, 2007) and the more recent Investing for Food and Jobs (IFJ): An agenda for transforming Ghana's Agriculture (2018 – 2021), by MOFA (2018). This last document, in particular, indicates the need of reinvigorating extension services to achieve the policy objective of improve production efficiency and yield.

The suggestions here present opportunities to strengthen the delivery of IFJ (MOFA, 2018) and provide ideas to be further developed in subsequent iterations of the policy.

In the context of exploring the potential to deliver a more pluralistic service to farmers, it is important to start by understanding what farmer recently state as the sources of information they rely on.

Between 2016 and 2019, CABI worked with partners in the region to conduct research on farmers' information sources, adoption of and barriers to adoption for legume-based sustainable agricultural intensification improved practices and technologies, specifically in the context of soybean. The project also looked into bottlenecks of information sharing along the legumes value chain. This research was undertaken under the framework of the Gender and Legume Alliance: Integrating multi-media communication approaches and input brokerage (GALA) and the Africa Soil Health Consortium (ASHC) projects in partnership with IITA and supported by the University of Development Studies. It was funded by UK-Aid. In addition, communication campaigns on soybean were rolled out in Northern Ghana with the use of village-based screenings in collaboration with Countrywise Communications Ghana. The campaigns promoted the use of P-fertilizer, improved seeds and inoculants.

In Ghana, 300 households made up of 868 people aged 18 and above were surveyed in areas where the soybean campaign had been targeted. Excluding own knowledge and experience, neighbours and friends were the most important sources of information mentioned by both men and women. Men were more likely to cite extension agents, radio and demonstration plots than women, and women more likely than men to cite other household members and agro-dealers. Women were also more likely than men to cite only one source of information. Overall, 63% of the respondents reported sharing agricultural information with others, mostly other household members, (on average with four other household members), although more men (72%) than

women (48%) did so. The survey provided evidence that age and gender can have an impact on the sources of information accessed.

Concurrently, the GALA project investigated barriers to adoption of the inputs and practices promoted. Awareness, access and financial constraints emerged as the main barriers to adoption. Farmers expressed interest in technologies such as inoculant, but cited significant difficulties in accessing the product. Further investigation showed that this was mainly due to inefficiencies in the supply chain, with information on farmers' demand not reaching agro-dealers. Research also showed some potential for improving advisory services through information brokerage along the value chain to improve linkages between input supply and demand.

Findings from the research were shared with a heterogenous group of stakeholders including representatives from the government, private sector and universities during a workshop in October 2019. The meeting identified the main challenges in the extension system in Ghana and developed a set of recommendations to guide improvement of information delivery to and from farmers.

Pluralistic advisory services

Pluralistic extension refers to the involvement of multiple stakeholders (public, private actors, civil society organizations, farmer organizations, NGOs, universities and research institutions, etc.) in the extension service delivery and funding, and the use of different extension approaches and methods. Extension delivery is primarily a government responsibility in Ghana, though many other actors are involved including development partners and non-governmental organisations. Advisory services offered by other providers, such as NGOs, agribusinesses and farmers' organisations, open up new opportunities based on distinct competitive and comparative advantages (KIT, 2016).

Currently the following are identified to be the major challenges in the delivery of advisory services:

Ensuring good ratio of extension officers to farmers: A 'good quality' extension service is described as one with a high number of extension agents per farmer or a high number of visits or contacts between farmer and agent (Ragasa et al. 2013), and evidenced by useful, high-quality advice (Ragasa et al. 2013; Thuo et al. 2014). The public extension service should seek to work with all farmers, irrespective of who and where they are or their financial means. There is a poor farmer access to extension staff (resulting in high AEA – farmers ratio of 1:1,885 as at 2017), (MOFA, 2018). There has been a recruitment drive which has resulted in several thousand new extension officers. But there are also challenges to set up the extension infrastructure in the new regions (established in the government's regional reorganization in early 2019). There is also a general embargo on replacing staff that leave their posts. In addition, extension might not be seen as a lucrative career – leading to people, especially young ones in the service, lacking commitment and motivation and eventually leaving the system.

Achieving **gender balance in the recruitment of extension staff:** Women farmers are disadvantaged by the limited number of female extension workers in many districts (Beintema and Di Marcantonio 2009; McNamara et al. 2014; Christie et al., 2015), especially in areas where cultural norms make it difficult for a female farmer to talk to a male extension worker. This trend might have been exacerbated by a policy that allows posting of recruited extension staff anywhere within the country. The requirement to relocate may be an unwitting barrier to women applying for positions especially when they have family ties to particular regions.

Need for multi-skilled generalist extension officers: Extension teams are recruited based on their knowledge of agronomy but are increasingly required to bring in additional knowledge covering post-harvest issues such as marketing, basic economics and access to markets, together with nutrition, which is the focus in some programs (Msuya et al., 2017). Increasingly the extension service has a small bank of subject matter specialists (SMS) who are there to backstop the extension teams.

Ad hoc trained extension officers: Some of the government extension officers working in the field were perceived to be inadequately trained. The perception is that they do not receive regular up to date trainings and this might affect the content and information they are delivering to farmers. Furthermore, the training they receive is mostly face-to face, further reducing the opportunities to take advantage of faster and up to date learning that could be offered, for example, by e-learning or access to better digital knowledge.

Blanket recommendations: The need to move away from blanket recommendations has been identified as a means to consider farmers' diverse socio-economic and bio-physical conditions (Sanginga, and Woomer, 2009). The success of scaling out depends on a clear understanding of the factors that affect adoption of grain legumes and account for the dynamism of those factors across heterogeneous contexts of sub-Saharan Africa (Farrow et al., 2016). The current extension service is often not well served with materials or approaches that sufficiently support heterogeneous farmers and farms to achieve sustainable changes in practice. This might lead for example, to blanket recommendations, which is also indicative of a top-down approach that lacks tailored and demand driven recommendations.

Achieving greater inclusion: The IFJ (MOFA, 2018) states the need to work towards gender equity and considers inclusivity of men, women, and youth as one of its guiding principles. It recognizes that the 'fight against gender bias in agriculture is crucial to sustaining economic growth and ensuring food security'. Furthermore, finding the best fit for men and women farmers helps in reducing the gender gap in agricultural extension and advisory services (Manfre et al., 2013).

Gender norms might be a challenge in women participation in trainings and producer organizations and/or might impede them from voicing their opinions in the presence of men. In addition, Ghana, like many other countries in Sub Saharan Africa, is experiencing a 'youth bulge' and will need to identify ways of drawing a proportion of them into the agricultural sector. There are opportunities for young people to create livelihoods in the agricultural sector, which would require, for example, understanding that there are technologies and innovations that can allow farming to be more profitable than the low-input approach that they predominantly see in the community.

Recommendations:

- Redesigning the extension agent recruitment model to be more inclusive, for example through the introduction of quotas for percentage of women entering the service. As part of the push to improve access to extension, enlist young people in national service, and volunteers. Students could also be actively engaged in extension projects.
- The incorporation of more women scientists as role models in pluralistic extension services and the promotion of the farming family concept could help achieve greater inclusion and overcome some challenges linked with the cultural contexts, traditions and norms. Strong role models can help demonstrate that women can succeed in science and technology -

and overcome the bias against science from women and girls.

- Access to credit and career development opportunities (skills, knowledge, access to markets) can help increase youth engagement in provision of extension services.
- A pluralistic advisory service approach could be in addition, favoured by: i) trained agro-dealers to ensure delivery of high quality and trusted advise to farmers; ii) establishment of partnerships with local organizations; iii) reinforcement of farmers' unions, organisations and cooperatives to promote better information on and access to inputs; iv) tight links between research and extension, for example by revamping the Research -Extension - Farmer Linkage Committee (RELC) to enhance farmer participation and representation; v) the establishment of a platform to share ideas among extension, research, private sector and farmers' representatives. This platform could also help to understand and predict farmers' demand for various inputs.
- Blanket recommendations can be overcome by adopting customized and/or bundling approaches. Bundling is a farmer-centered approach to provide agricultural information based on farmers individual resource ability. Field trials have made it possible to work out the economic and agronomic impact of different combinations of various inputs. In this regard, some work has been done for soybean in Ghana by the Soybean Innovation Lab of the University of Illinois, under the framework of the Feed for Future programme[1]. Customizing extension refers to adapting the current extension approach towards a market-driven commodity-based approach that targets the needs of different farmers (from small to large commercial farmers) also related to their heterogeneous bio-physical contexts. Up to date trainings should be provided, and the content of the trainings should be broadened to include markets, basic economics, and nutrition, for example in order to keep up with a fast-moving innovative and technological environment.

Coordination

The challenges that are currently hampering a coordinated and smooth delivery of agricultural information are here listed.

Inconsistent information from different actors. A pluralistic approach sometimes presents challenges with consistency of messages, meaning farmers might receive contradicting and confusing messages including those, which expected benefits are not scientifically proven.

Targeted communication channels and feedback loops. The choice of media and formats to use in agricultural extension can largely influence the ability of farmers, especially women and youth, to enhance their engagement in the agricultural sector. Family-centered learning, through for example, village-based video screenings, is one way to support inclusion. However, the choice of the media depends also on the complexity of the message that has to be delivered. The

[1] The Soybean Innovation Lab of the University of Illinois, under the framework of the Feed for Future programme developed a series of bundles of different potential and different economic costs, fitted to the pockets of farmers with different finance availability. Currently, four bundles are available: red bundle (focusing on improved seed); yellow bundle (focusing on improved seeds and inoculant); the blue bundle (focused on improved seeds, inoculant and fertilizer); and the green bundle (focused on improved seeds, inoculant, fertilizer, combined with soil tests and liming). The bundling approach allows farmers to be able to plan to scale up investment – improving both yield and income.
Source: http://soybeaninnovationlab.illinois.edu/

complementarity of different approaches should be considered to ensure equity of reach and increase likelihood of uptake of agricultural practices and technologies. Consideration of the different languages and levels of literacy among farmers is also important to ensure production of farmer-friendly materials. Furthermore, farmers' input and feedback loops into the development of communication materials and advocacy services ensures avoidance of the mismatch between farmers' needs and projects' services including information.

Recommendations:

- There is a need for local/regional/national leadership to bring together the pluralistic extension providers to work towards greater consistency of agronomic practices and/or to show the economic impact of different choices to help farmers make informed decisions. The process of developing an agreed set of agronomic practices was piloted by the Legume Alliance[2] using CABI's signature process of developing what became known as a Technical and Messaging Brief[3].
- Match the media to the farmers needs and preferences for consistent, high quality information also allowing for feedback loops, and combine a range of approaches to include face-to-face engagement, sending out SMS, radio programs, video, etc.

ICT/e-solutions

The IFJ (MOFA, 2018) states the importance of promoting the application of information and communications technology (ICT) in the agricultural value chain in order to minimise cost in all operations. However, for ICT to be used more widely, there are some challenges that need to be addressed.

Unequal access to technology: Substantial progress has been made in making Information & Communication Technologies (ICTs) available and accessible for rural communities. However, the success of use of ICTs is linked with the need to overcome some challenges linked with content, gender and diversity, access and participation, and type of technologies, to mention a few (Manfre et al., 2013; FAO, 2018).

In some rural areas network coverage is poor and access to smart phones is limited to an estimated 1 in 10 households. People in rural areas also have lower levels of literacy and are disadvantaged by the use of e-learning. Notably, older people usually have less access to new technologies because of low literacy levels and discomfort with new technologies.

Furthermore, the gender composition of the person(s) providing the information as well as the gender composition of the person(s) receiving the information are particularly important in the context of ICT mediated knowledge transfer (Campenhout et al., 2018).

[2] For information about the legume alliance: https://africasoilhealth.cabi.org/2015/06/08/the-legume-alliance/

[3] A Technical and Messaging brief is developed through an inclusive and participatory process that brings together key stakeholders such as research agencies, input dealers, farmers and development partners to agree on key messages to be shared. This brief then becomes the basis for adapting messages for multiple dissemination channels and formats such as radio, video, mobile SMS and print material.

Farmer profiling: Farm-level and field-based data provides critical information that can be used to create farmer profiles. Farmer profiling enables provision of specialized, context-specific services to farmers. The delivery of these services can largely be supported and improved by using ICTs (Boyera et al., 2009).

Currently, contact details of farmers are collected within the framework of different initiatives.

The establishment of reciprocal arrangements between private sector business, farmers organizations, cooperatives and other public entities, to access farmers' data through a shared platform could contribute to different benefits, such as the production of targeted communication campaigns, easier communication if the profiling platform includes ICT options, planning and strategies based on real data. The value of these profiles could also help policy makers to target the most representative organizations.

M-learning is an emerging concept and a natural extension of e-learning. It refers to learning through mobile technologies (Sanga et al., 2016). M-learning has the potential to support the transition to a more effective advisory services, allowing learning to become more widely available. However, to be effective it would require access to tablets, credit, smart phones, etc.

Recommendations:

- There is an opportunity for greater collaboration between the various holders of farmer databases to share information to support compilation of a consolidated database of farmer profiles, provided good data stewardship is adhered to (e.g., customer privacy, appropriate consent, security, etc.).
- Strategies that develop e-learning solutions for farmers need to be mindful of existing constraints, with an understanding that farmers with access to good ICTs are also most likely to be the early adopters.

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Acknowledgements

The opinions expressed in this briefing are those of the authors and do not necessarily reflect the views of DFID. This policy brief was supported by the CABI Development Fund and SAIRLA. CABI is an international intergovernmental organization and we gratefully acknowledge the core financial support from our member countries (and lead agencies) including the United Kingdom (Department for International Development), China (Chinese Ministry of Agriculture), Australia (Australian Centre for International Agricultural Research), Canada (Agriculture and Agri-Food Canada), Netherlands (Directorate-General for International Cooperation), and Switzerland (Swiss Agency for Development and Cooperation). The Sustainable Intensification of Agricultural Research and Learning in Africa (SAIRLA) programme is funded by the UK Department for International Development and managed by WYG International Ltd and the Natural Resources Institute, University of Greenwich.

How to cite this policy brief

Silvestri, S., Baars E., Njunge R., Sones D., Adraki, P., Obeng F., (2019). Revitalizing the extension system in Ghana. Recommendations for enhancing the role of communication and information. SAIRLA Policy Brief, Ghana.