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AGRICULTURAL EXTENSION DEBATABLE ISSUES

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ABSTRACT

Extension, and extension workers in particular, drive the agricultural modernization process and the rest of those in associated professions and positions are 'support staff.' Whether you are a lecturer, a professor, a dean, a researcher, an extension director or a head of a non-government organization, if your mission is to develop smallholder agriculture at farmer level, you are supporting the field extension worker to achieve your/farmers' goals. To this extent, it is no surprise that, when no perceptible improvement takes place at the farmer level, the blame lies squarely on the shoulders of extension. Despite its importance, agricultural extension is the most misunderstood of all agricultural disciplines, and the lack of understanding reveals itself in several ways. This paper discusses some of the misconceptions and debatable issues that affect the way extension is supported, the way it is structured, the way it is staffed and the way extension workers are trained and capacitated. The misconceptions also affect the kinds and levels of expectations people have of extension. The misconceptions include: *unending definitions of extension, expanding extension concepts, blaming extension for perceived failures in agriculture, undermining the extension discipline, inadequacies in extension teaching and training, markets and the role of extension and structural changes in extension*. The origins of some of these debatable issues can be traced to development partners who come with their conceptions of what is needed while others come from development theorists who have not done any extension work in the field. Unfortunately, there are no strong extension professional associations in many African countries that could: raise the profile of extension as a discipline, interrogate some of the agricultural development interventions before implementation and help clear some of the misconceptions. In the absence of extension platforms, extensionists operate as individuals, each struggling the best way they know how to make a difference at the farmer level. There is no way of harnessing the experiences the individuals are going through for purposes of learning, sharing and developing common positions. The purpose of this paper is to promote debate on, and scrutiny of these extension issues which are often presented as facts and absolute truths.

Key words: Extension issues, debatable, agricultural discipline, misconceptions, professionals, smallholder farmers



INTRODUCTION

The paper is based largely on the author's experiences during the implementation of an in-service degree program for mid-career agricultural extension professionals at 12 universities in four countries: Ethiopia (Arba Minch, Awassa, Bahir Dar, Haramaya, Jigjiga, Jima, Mekelle, Samara, Wollo), Malawi (Lilongwe), Tanzania (Sokoine) and Uganda (Makerere) between 1996 and 2017. The program was supported by Sasakawa Africa Fund for Extension Education (SAFE) in partnership with Winrock International (WI). Winrock International and SAFE provided leadership in catalyzing linkages between employers and selected agricultural education institutions in Africa and encouraging them to develop responsive BSc. degree programs for mid-career agricultural extension professionals [1]. Employers, mostly ministries of agriculture, and universities formed partnerships wherein employers identified and sent their staff to universities on full salary and also paid their fees, while the universities provided staff to teach program courses. Although WI/SAFE have since ended their support, many of the programs are still running, supported by their own institutions.

As part of their training, the students together with their employers, farmers and researchers, develop 'supervised enterprise projects', or 'supervised extension projects' (SEPs) proposals relevant to their jobs as extensionists, that they go back and implement in their respective workplaces for 6-8 months. The SEPs' aim is to solve real-life problems at farmer level. The students implement the projects under direct supervision of their employers, while academic supervisors visit the projects to provide on-the-spot instruction. The SEPs provide an opportunity for co-learning amongst the farmers, the students, their employers and university lecturers in a real-life situation. They provide unique and rare opportunities for academic staff to assess the relevance and effectiveness of their teaching and to identify other opportunities for learning. Supervised enterprise projects differ substantially from the regular research projects in that SEPs involve both '*action*' and '*research*' – '*action*' to improve farmers' welfare and '*research*' to increase knowledge. Due to the intensive nature of the supervision required for these projects, annual intakes at each university do not usually exceed 30 students.

1. Unending definitions of extension

The problem with extension starts with its definition. Extension definition is a moving target – there are so many definitions, and more are still coming [2]. There is confusion about what agricultural extension is and what it is supposed to achieve – with some definitions tending to broaden its mandate [3, 4]. Apart from changing definitions of extension, there is even debate about the use of the term 'extension'



because it is believed to have top-down connotations. Some argue for the abolition of the term altogether – but have not yet found a suitable and enduring substitute.

When a pan-African extension platform was formed about 20 years ago, there were challenges in coming up with an appropriate name because the founders did not want the word ‘extension’ in it. Eventually, they called it African Forum for Agricultural Advisory Services (AFAAS). However, over the years, AFAAS’s flagship event has been the biennial Africa-Wide Agricultural Extension Week (AWAEW) – an international event that brings together agricultural extension and advisory services (AEAS) stakeholders and other value chain actors across Africa and globally, to deliberate on selected strategic and topical themes for sustainable development. The founders could not run away from the word ‘extension’ on this one.

At about the same time that AFAAS was formed, a global platform was formed and was called Global Forum for Rural Advisory Services (GFRAS) – again the founders made effort to avoid the word ‘extension.’ However, since its formation, one of GFRAS’s main achievements has been the publication of a booklet entitled ‘The New Extensionist.’ Again, they could not run away from the word ‘extension’ – because that is what it is.

Makerere University in Uganda changed their Bachelor of Agricultural Extension and Education (BAEE) program to Bachelor of Agricultural and Rural Innovation (BARI), a change which was spearheaded by a colleague who had just returned with a PhD from Wageningen University, having been influenced to avoid using the term ‘extension.’

Haramaya University in Ethiopia changed its Department of Agricultural Extension to Department of Rural Development and Agricultural Extension, a change which was spearheaded by a colleague who had just returned with a PhD from the University of Pretoria – also, where he was influenced to de-emphasize the term ‘extension.’ Several universities in Ethiopia have since adopted the Haramaya naming of their extension departments.

2. The extension concepts (or slogans?)

There is a proliferation of extension concepts and approaches which leave no traceable evidence of success. Concepts like: *demand-driven extension, farmer first, client-oriented extension, farmer-led extension, decentralized extension, accountability, farmer field schools, training and visit, participatory rural appraisal, agricultural knowledge systems, agricultural innovation systems, farmers plant wise clinics, farmer to farmer extension, market-oriented extension, value chain-oriented extension, climate-smart agricultural extension*, will not, in themselves,



bring food to the table. Their power to transform rural people's lives tends to be exaggerated at times. Debates on these can be endless without ever seeing whether they are achieving anything on the ground or not. It would be difficult to arrive at a point where people can say 'extension is doing it right' based on these concepts as the goals can keep changing depending on who is articulating the concepts. Discussions of the concepts can be quite academic – and even sound more like slogans. There is need to avoid labouring and romanticizing these concepts and focus on seeking practical ways of enabling farmers to prosper in agriculture.

3. Using extension as a punch bag for perceived failures in agriculture

When no perceptible improvement takes place at the farmer level, the blame lies squarely on the shoulders of extension. Criticisms abound of the failures and ineffectiveness of extension in sub-Saharan Africa. Literature is replete with reasons for extension failures, ranging from inappropriate training, top-down approaches (and there seems to be an obsession against public extension services on this point), to marginalization of women, youth and limited resourced farmers [5]. In fact, when one goes through literature, one hardly finds anywhere where extension has “done it right”. If it happens that a country produces more than its food needs, credit goes to some government initiative, or the weather – and rarely attributed to extension.

4. Extension is usually not recognized as an agricultural discipline

Most universities do not teach extension and, if they do, it is in the form of an elective or introductory service course given to students pursuing degrees in other agricultural disciplines. Because of this lack of understanding, these universities do not even have departments of extension – and the people who teach the odd extension course are usually placed in departments of agricultural economics. The rationale behind this structuring is not clear. What is the relationship between agricultural extension and agricultural economics?

Considerable education is needed across the board for all to know that: getting agricultural science right is one thing, and delivering the products of agricultural science to farmers is quite another. That is why there are a lot of technologies on the shelf that could make a difference at farmer level but are still lying there unused.

5. Inadequacies in extension teaching and training

The fact that extension is usually not recognized as a distinct agricultural discipline leads to poor preparation of extension practitioners as reflected in the level and type of training provided by agricultural educational/training institutions.



5.1 Few extension practitioners have received extension training

There seems to be a general belief that anybody can do extension. That is why there is no extension training at most universities; that is why people with no extension training are employed to do extension; that is why extension is being decentralized to district local governments in some countries; that is why, in some ministries of agriculture, there are no directorates of extension; that is why, in some countries, people with neither extension nor agricultural training are appointed to manage extension. Part of the reason is the failure of employers to articulate their needs to universities and training colleges.

For many employers, especially government ministries, things are usually alright as they are, and they do not see any need for changing them. They take whatever they are given by universities in the belief that universities know what is good for all. So, they believe that any agricultural graduate can do extension. Thus, universities see no need for extension training. This status quo is, therefore, self-reinforcing as shown in Figure 1 below.

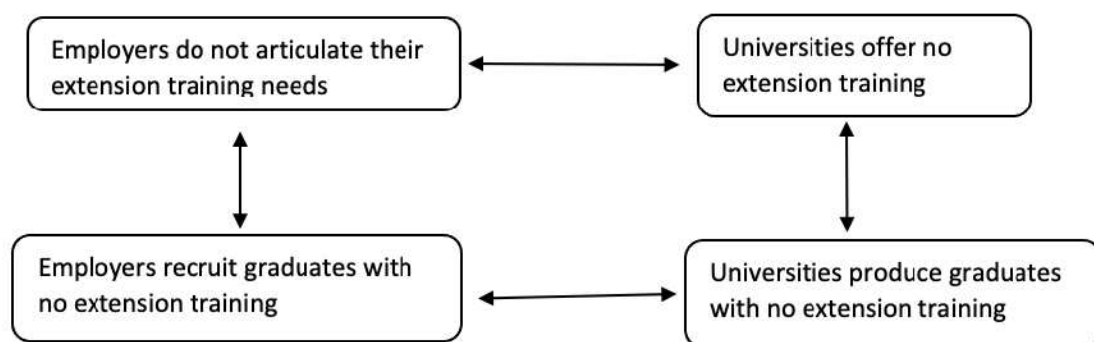


Figure1: Self-reinforcing *status quo* for no extension training

Universities churn out graduates without extension training – extension services carry the blame for poor performance. It is like sending a poorly-trained army to battle – one cannot expect to win. To break this cycle, employers need to articulate their needs to universities.

In the countries where the mid-career program was implemented, WI/SAFE demystified the ‘ivory tower’ phenomenon which has traditionally characterized institutions of higher learning by demonstrating that universities can actually respond to well-articulated needs. Through this program, employers demanded extension training and universities responded with need-based BSc. programs in agricultural extension.

5.2 Value chain-oriented curriculum

The initial curriculum used for the mid-career program was production-oriented. Extension focused on improving production and productivity. As a result, farmers were actually reducing the value of their produce through poor practices. For example, when farmers thresh their crops by using cattle to trample over the crop (Fig 2), they are reducing the value through soil, urine and dung contamination, and some seeds will be lost thereby reducing yield recovery. When they harvest their fruits prematurely and take them to the market (Fig 3), they are reducing the value of the fruits as most of them rot and are discarded.



Figure 2: Threshing wheat



Figure 3: Fruits harvested before they were fully mature

Based on this realization, value chain-oriented and practical curricula were developed [6]. The process involved needs assessment surveys, developing responsive curricula and writing instructional materials. At the same time, this process led to the realization that the original curriculum was weak on pastoral issues. So, a pastoral-oriented value chain needs survey was conducted, followed by a pastoral-oriented curriculum for Ethiopia. But, as they say, 'the devil is in the detail.' There were several challenges in implementing the value chain-oriented curricula.

5.2.1 Retooling teaching staff

The first challenge was that university teaching staff generally lack the experience necessary to teach practical-oriented programs. They are products of theory-based production-oriented programs and most of them are recruited immediately after graduating. They, therefore, can only teach what they know from what they were taught. During a discussion with the Dean of the Faculty of Agriculture at Makerere University about the practical-oriented curriculum, he wondered how the practical aspects of the program were going to be achieved, giving examples of lecturers who "have never milked a cow, but are teaching Animal Science within the program."



Finding teachers to teach the teachers became a challenge. There was very little literature of practical relevance. So, WI/SAFE decided to facilitate self-teaching and learning through workshops and individual explorations for information. Instructors were facilitated to write, or adapt their own instructional materials. That way, more appropriate teaching and learning materials were generated locally rather than buying books written in far-away countries with little local relevance. In addition, 'technology villages or centers' were set up with a range of appropriate technologies at several universities. However, only a few centers were used for teaching students. Most teaching staff had no experience in using the 'demonstration method' of teaching using hardware technologies.

The program benefited from the field experiences of Sasakawa Africa Association (SAA) staff who were working on post-harvest management. A series of value-enhancing seminars were organized at the different universities for SAA staff to share their experiences with teaching staff.

5.2.2 Teaching of the value chain concept

The second challenge, which was related to the first one, had to do with how the value chain concept was taught. There were professionals who made a living out of articulating the value chain concept – it was an 'industry' to them. They made it sound like 'rocket science' with maps and arrows facing all over, giving examples from the motor and clothing industry – with no relevance to smallholder farmers – when, in actual fact, what the farmer needed was much simpler. The smallholder farmer needs to know what the market options are, the quality wanted, and how they can produce the product and get it to the market in a state that the market wants it. Unfortunately, these are missed out in the training of extension workers who are left to figure out how to assist farmers benefit from available market opportunities.

5.2.3 Challenges with the SEPs

The SEPs, also known as '*supervised experiential learning projects (SELPs)*', provided a unique opportunity for actualizing the value chain concept. There was a great opportunity for ensuring that the students embraced the value chain orientation through their SEPs but, challenges were observed here as well.

a) SEPs remained largely production-focused

Firstly, there seemed to be very little of practical value that was taught, beyond what smallholder farmers were already doing, that could enhance the value of their crops and crop products – especially from harvesting to marketing. Research has produced largely production-oriented technologies.



b) Crops dominated student projects

Secondly, there seemed to be very little of practical value that was taught, beyond what farmers were already doing, that could enhance the value of livestock and livestock products at smallholder farmer level. As a result, mid-career students avoided livestock when choosing topics for their SEPs – even students following the pastoral-oriented curriculum preferred crops. It seems more work has been done on crop technologies than on livestock. Extensionists, therefore, have more to say on crops than on livestock. Farmers must, therefore, be missing opportunities for enhancing their incomes through livestock production.

A workshop was organized where:

- teaching staff were requested to list specific farmer-level value-enhancing technologies and practices that they were teaching students using one value chain as an example per lecturer.
- employers were requested to list specific farmer level value-enhancing technologies and practices for crops and livestock that they recommended to smallholder farmers.

The workshop generated lists of specific smallholder farmer technologies and practices that students could recommend with confidence, but, once again, most of the technologies were production-oriented. There is need, therefore, for research to do more work on value-enhancing technologies and practices for both crops and livestock.

5.3 Standard research methods

A standard ‘research methods’ course taught at universities emphasizes scientific ways of conducting research. Students are taught scientific methods of collecting and analyzing data and report writing. They collect data and analyze it in ways that enable them to describe situations as they exist, and they come up with long ‘wish lists’ in the form of recommendations for others to implement. They become experts in analyzing and developing models to describe situations – but they cannot change the situations. In other words, they are taught how to describe problems, but not how to solve them. They produce reports that are of no use to anybody, not even to themselves, apart from other students doing similar academic studies. It is just as well that they do not claim to be anything else other than research projects done and “.... submitted to the ...university in partial fulfilment of the degree of....” They are not done in partial fulfilment of a solution to farmers’ problems. So, why would anybody be interested in the reports unless they were also students pursuing similar degrees?



In his book on writing and publishing scientific papers, Day [7] observed that the dustiest corner of a university library is where the PhD theses are kept. They are written in ways that only the advisor and other students of the same topic will understand. The methods are not suitable for action-oriented extension research of which the SEPs are a typical example. The inadequacies of the standard research methods course were so serious that three teaching staff were inspired to write a book entitled “A Step-by-Step Guide to Agricultural Extension Research”, which was published in 2019 and is now being used at some of the universities running the mid-career program.

6. Markets for agricultural produce and the role of extension

Perhaps one of the major challenges in extension has to do with the nature of markets available to smallholder farmers. Markets outlets for most of the smallholder farmers are largely informal and dominated by middle-people, who do not pay premium prices based on quality (examples Fig4, Fig 5, Fig 6). There is, therefore, little incentive for smallholder farmers to invest in quality-oriented management levels.



Figure 4: Roadside food market



Figure 5: Crop market



Figure 6: Cattle market

Functioning markets are a key and indispensable pre-condition to, and drive agricultural development. They trigger innovativeness, creativity and adoption of improved practices among farmers. They trigger entrepreneurship among farmers and all the value chain actors (Fig7).

Markets enhance efficiency of extension. Where markets are available and functioning properly, extension's role is to ensure that:

- Farmers have all the information on market needs.
- Farmers have knowledge and skills to maximize production.
- Farmers produce the best quality of each commodity.
- Farmers work together to maximize benefits.

Markets are a key determinant of agricultural development. Where there is a functioning marketing system, markets express their needs, make production inputs available and pay for agricultural commodities that meet their needs.

Market needs trigger entrepreneurship. Farmers respond to market needs by investing in their agricultural education to get the knowledge and skills that enable them to capitalize on the market needs. They invest in improved technologies and production inputs that give them the best yields and quality products. They invest in improved management practices that enhance their incomes.

Market needs trigger the emergence of service entrepreneurs like input distributors (for example veterinary products and feeds), veterinary paraprofessionals, combine harvester and thresher operators, transport operators, labour providers, middle people or persons (middlemen), money lenders, and so on.

Markets trigger the emergence of farmer institutions to lower transaction costs in sharing knowledge and skills, encouraging each other, buying inputs, selling farm products and lobbying for services and for fair prices.

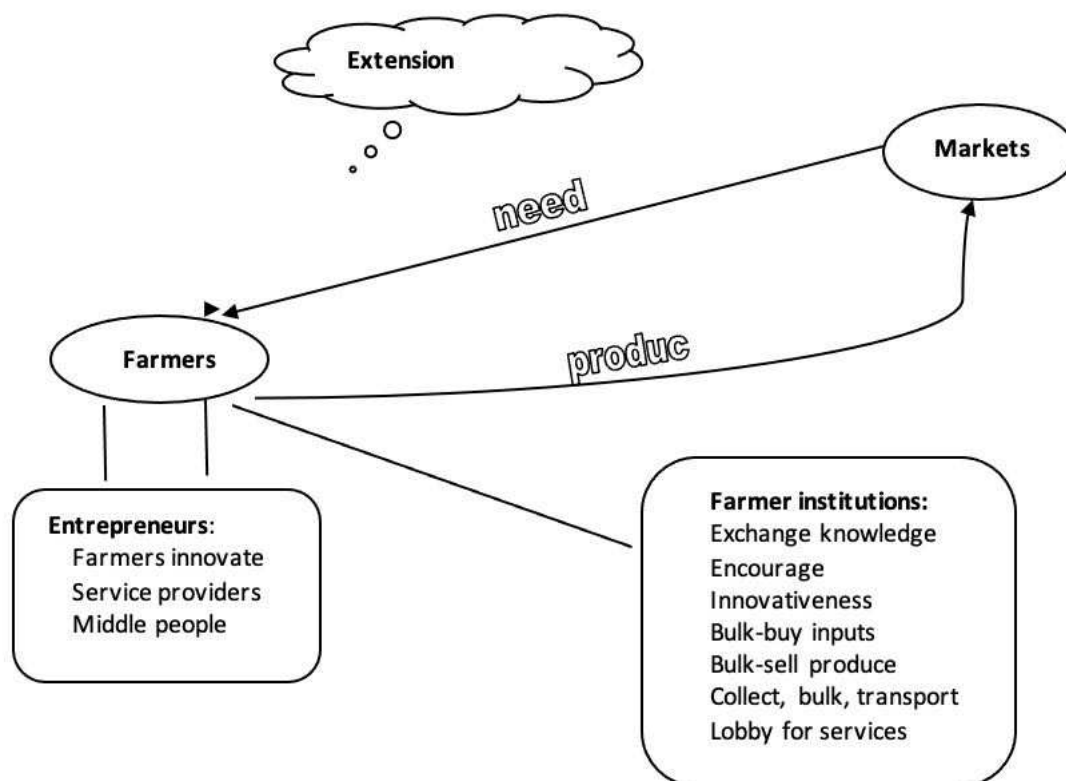


Figure 7: Linkages between markets, entrepreneurs and farmer institutions

Where markets are dysfunctional: extension cannot link farmers to markets because there are no markets, and extension cannot create markets and farmers produce for home consumption or produce based on 'hope' that someone will be

willing to pay for their produce. There is, therefore, no real incentive for farmers to invest in production beyond home consumption needs. There is no incentive for service entrepreneurs and there is no incentive for farmers to work together as the benefits for doing so are not clear.

7. Structural changes in extension

According to a study report by Oladele [8], international agencies and scholars have been urging developing countries to decentralize, and, indeed, several countries have been decentralizing in response to pressure from donor agencies. Under this arrangement, extension is decentralized to, and managed by, rural councils or district local governments whose pre-occupation is in 'governing.' They may not have full appreciation of extension, in which case they may not prioritize extension in the allocation of resources; they may give extension personnel non-extension duties; and they may not consider capacity development of extension staff as important. This posed a problem for the mid-career program in the countries with decentralized extension like Tanzania and Uganda, where neither the ministries of agriculture nor the ministries of local government would sponsor extension staff for the program. The ministries of agriculture were no longer the employers, and ministries of local government did not consider staff development as important. This led to low morale among the extension staff as they felt like 'orphans' with neither ministry paying attention to their professional development needs.

This also created problems for WI/SAFE in terms of negotiations. In countries where extension staff were under the respective ministries of agriculture, WI/SAFE had only one employer to negotiate with regarding the mid-career program. Where countries had decentralized extension, WI/SAFE had to engage with dozens of new 'employers' as decision-making powers were decentralized to local councils.

It is not clear what informs the call for decentralization. More worrying is the fact that countries do not seem to learn from each other's experiences as they move to 'experiment' with decentralization. Uganda ran the experiment for 10 years and realized that it was not producing the desired results. Production statistics showed a decline and only 10% of the farmers received extension services [9]. The Government of Uganda had to reconstitute its ministry of agriculture and modified the decentralized system. As Uganda was having second thoughts about its experiment, Kenya, right next door, was also decentralizing, the same way Uganda had done and was abandoning. During a friendly discussion, a Kenyan lady was asked why Kenya was not learning from its neighbor, and her response was "...we are a sovereign nation." This short and sharp answer might have been a joke, but it looks like this is how governments do their business.



Theorists argue that ‘decentralization’ of extension services leads to strong farmer participation. They say that decentralization leads to *improved efficiency, effectiveness and relevance of extension through: increased participation of farmers, improved extension accountability to farmers, improved extension responsiveness to farmers’ demands and, timely access to advice by farmers.*

However, the theorists make these arguments without showing how moving the extension function from a technical ministry (agriculture) to an administration ministry (local government) will enhance farmer participation. In fact, it is not clear how extension can be closer to farmers via the ministry of local government – a ministry whose main preoccupation is ‘governing’ with no special orientation to agricultural extension. How does handing over the extension function to local government lead to increased farmer participation in extension programs? How does this bring field extension workers (who are already in the field by the way) closer to farmers? The fact that the extension departments in many countries are already more decentralized than other departments with an extension worker at village or community level is ignored. In fact, in many cases, frontline agricultural extension staff end up providing services on behalf of other departments who have no staff at local level.

If extension reports to district councils, these are not farmer representatives, they are political representatives. If the aim is to strengthen farmer participation, then decentralization should be preceded by farmer institutional development and strengthening. Not only will this provide a network of farmer organizations that extension can engage with, but the farmers will have capacity to demand services.

For decentralized extension systems to be effective, there will be need for strong, viable and self-sustaining farmer organizations (FOs) that are able to, among other things:

- identify their own problems and seek ways and means to solve them
- seek ways and means of developing their technical and management knowledge and skills to better plan, implement and evaluate their programs
- take collective actions for the common good of their members
- take collective action in lobbying for better services from extension and other services providers and,
- monitor and evaluate performance of delivery services.

Strengthening farmer organizations is a more realistic and practical strategy for achieving the objective of *improved efficiency, effectiveness and relevance*, as strong FOs will demand services, accountability, responsiveness and they will participate in developing and implementing programs.



CONCLUSION, AND RECOMMENDATIONS FOR DEVELOPMENT

Agricultural extension is the most misunderstood of all agricultural disciplines. The misunderstanding starts with its definition which is continually evolving; its roles are not well understood leading to varied expectations, some of which border on the rejection of its importance. The confusion affects the way extension is supported, structured and staffed. It affects how extension workers are trained and capacitated. Generally, the confusion is the major source of the lack of appreciation of extension prevailing in many African countries today. At the center of all this is the failure to recognize extension as a distinct agricultural discipline.

Employers, universities and development partners need to recognize extension as a full-fledged agricultural discipline with its own knowledge and skills set. The recognition will change the whole perspective on extension including the definition and expectations. It will lead to a more focused understanding of extension capacity needs. Employers, in particular, need to articulate their extension capacity development needs in ways that will enable universities and other training institutions to come up with appropriate curricula.

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