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THE ROLE OF AGRICULTURE EXTENSION IN THE 21 CENTURY: REFLECTIONS FROM AFRICA

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ABSTRACT

Agricultural Extension in 21st century anticipated to be surrounded with challenges infer to the contributions in the process of agriculture development and transformation into sustainable ways. Therefore, various extension and advisory services need new capacities in order to address the current challenges which will enable them to contribute meaningfully to better the agricultural innovation. To perform these roles extension needs new capacities at individual, organizational and enabling system environmental levels. This paper seeks to reflect on the role agricultural extension can play in agriculture development. It also looks at how best the three spheres of government can play a role in insuring that policies relevant to addressing the needs of our farmers are considered and that conducive environment are put in place for extension personnel to effectively provide services to our farmers. The paper reviewed and assessed the role of agricultural extensionists and extension services from systems perspective approach. It emanated from the conference papers presented from district conferences. The paper outlines the approaches the extensionists need to understand in order for them to achieve their objectives. It also highlights the key important elements for future direction. Furthermore, the paper concludes by recommending complete participatory agriculture innovation systems.

Keywords: Extension service, agricultural extensionists, agriculture development, approach

INTRODUCTION:

In South Africa agricultural extension is still largely the responsibility of the government through the ministry of agriculture. Extension service started experiencing some challenges in the last decade due to socio-economic changes and agriculture sector reforms taking place. Given the increase in food price, high demand for agricultural products, weather changes and constrained resources becomes critical to food security and poverty reduction in Africa (World Bank, 2010). According Slim *et al.* (2011), nearly one billion people globally suffer from chronic food insecurity. Public extension systems all over the world are being challenged to improve their relevance and effectiveness in contributing to agricultural and rural livelihood sustainability in an environment of increasing economic, social and ecological risk (Funtowitz and Ravetz, 1993). In South

Africa there was prevalent gaps in the extension and advisory services. In addressing the gaps, norms and standards for extension advisory services were developed. Confusion was also created with regards to the roles and responsibilities of different stakeholders on service delivery due to a lack of national framework for extension and advisory services (DAFF, 2008/9). In this 21st century, extension and advisory services needs to reinvents itself and clearly articulates its roles in the rapidly changing rural and agricultural context in order to improve their relevancy. Extension services needs staff with good understanding of technical knowledge and skills to manage social processes.

Currently, the public sector is confronted with new challenges in the transformation of its roles, functions and organization, as well as its relationship with civil society and market actors. A reminder from Extension scholar, NielsRöling (1999) is that extension system constitutes the most effective means to strengthen and creatively reconstruct the entrepreneurial, social, and

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ecological capacities of people to successfully engage in production and livelihood activities that demand on one hand, a strong competitive orientation, and on the other, heightened sensitivity of environmental issues. Critically, changes and adaptive agriculture and extension education institutions in the 21st century should be to improve their effectiveness in preparing professionals with capacities to address local as well as global level challenges of agriculture, natural resources, and people's livelihoods in Su-Saharan Africa. Conventional approaches to agricultural development and extension have failed to achieve the results in the small-scale farming sector of developing world (Davis, 2008). Agriculture extension service is the bedrock of agricultural development; however, the development of the sector cannot be achieved without an efficient and effective extension system. A study commissioned by DAFF (2008/9) recommended Participatory Programmed Extension Approach (PPEA) for South Africa. However, no single extension model for South Africa was recommended. High failures and less success of agricultural development projects necessitated one to review and analyze the roles and responsibilities of agricultural extensionists in addressing farmers' perceptual sets of problems within Capricorn District and Ba-Phalaborwa municipality.

Purpose of the Paper: The purpose of this paper is to examine conceptually and assess the roles and responsibilities of agricultural extensionists in the context of rapid global and local level changes occurring in the economic, political and social systems. It also aims to encourage agricultural extensionists to better contribute to increasing the productivity and

effectiveness of agricultural systems to improve the livelihoods of smallholder farmers.

METHODOLOGY

The approach used to review and assess the roles and responsibilities of agricultural Extensionists were based on farmer perceptual sets of problems as per two districts reflected during 2011 and 2013 district conference papers, journals, books and articles.

RESULTS

Why agriculture extension: The work of Picciotto and Anderson, (1997); Anderson, (2007); World Bank (2003a&b); Ngomane, (2006); Eicher, (2003); World Bank report, (2000), Zwane (2012) have indicated that the main focus of extension work is to increase food production and spread the benefits of improved farming techniques more widely. The change is needed not only to increase production, but to liberate households from poverty. Agriculture extension has a role to play in agriculture development.

A role may be defined as a set of norms, values and interaction patterns associated with a given category of individuals (Anaeto *et al.*, 2012). As a result of the foregoing changes to the country, agriculture extension faces a number of challenges in adequately responding and achieving their objectives. The key challenge to the extension remains how to interpret, develop and implement strategies and approaches for optimum participation of farmers in technology process. The assessment has revealed that development process should be clearly understood in order to do the correct things and one needs to have an understanding of information, knowledge patterns and have wisdom in understanding principles (Fig-1).

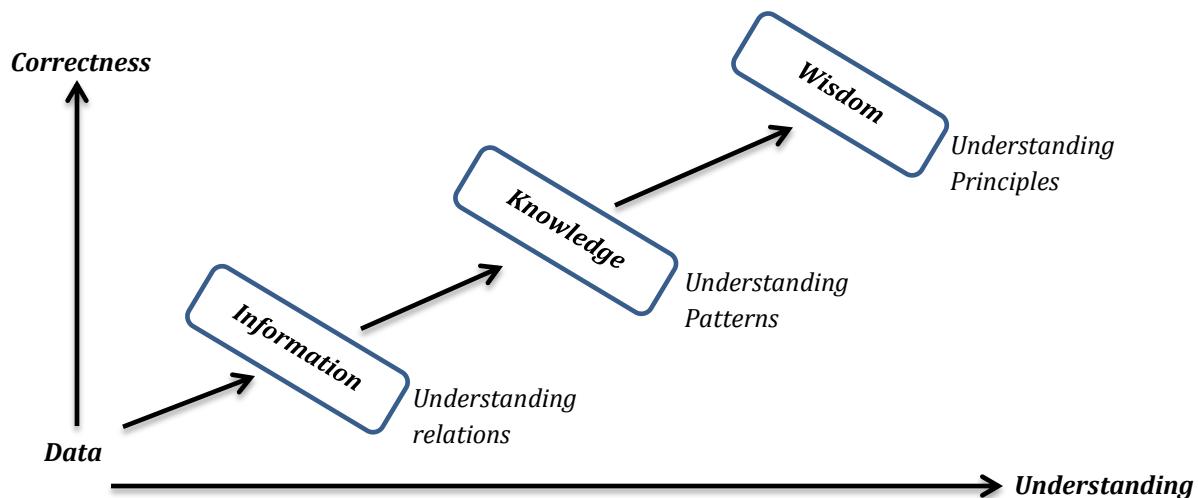


Figure 1. Understanding of the development process.

The generic problems of agriculture extension are bound to its diverse functions, as well as the bureaucratic, political and social operating environment within which extension systems operate. The following generic problems were identified:

Scale and complexity: These problems arise from a top down approach which is not amenable to participatory, bottom up approaches. The extension task can be understood in terms of numbers, farmers and other stakeholders. The complex issue is that there are diverse sources of farmers' agricultural information and advice, multiple stakeholders and range in extension mandate (Feder *et al.*, 1999).

Accountability: The informing and persuading approach to farmers to adopt technologies and practices developed by the experts as indicated by Haug (1998), Botha and Stevens (1999) and Anderson (2007) creates rigid hierarchy which discourages feedback from the users of the technology. Extensionists are seen as technical agents in this regard. The promotion of top down approach was imminent in the last century. Opion-Odongo (2000).

argues that agricultural extensionists in sub-Saharan Africa have behaved as if the farmers can only benefit from innovations that are external to their farming systems. More interestingly he further stresses that agricultural extensionists have tended to treat farmers

as if they were empty vessels to be filled with knowledge and expertise. It is clear from the different perceptual sets of problems from farmers that during technology generation process there was a lack of social expertise and accountability. Without farmer participation, an extension service gains only limited ideas about how willing users would be to contribute.

Cause and effects: Inability to trace cause and effect include political support, budget provision, and accountability. There are elements that require an agricultural extensionist to understand which contribute to sustainable agricultural development to address the perceptual set of farmers. The assessment has revealed that the information dissemination by agriculture extension services is composed of a large number of varying elements where roles and responsibilities needs to be understood and applied correctly (figure 2). As shown on figure 2, all the components are focusing on farmers and farmers are focusing on them. The model does not view farmers as separate strata and link between them is strong. The understanding is that in earlier empirical studies in the country have identified weak links between farmers, extension and researchers. Commitment and political support and failure of government to allocate necessary funds to run extension systems has a very serious negative impact in service delivery.

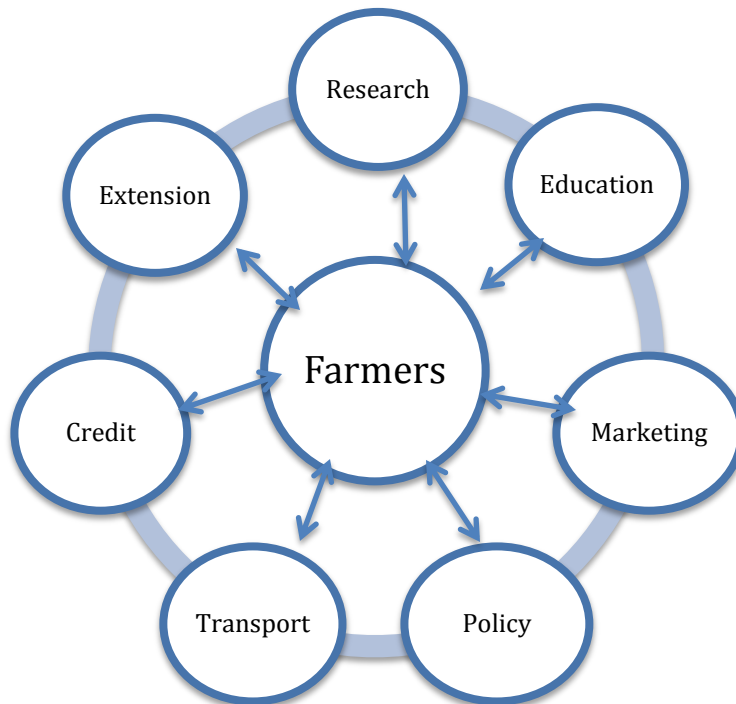


Figure 2. Iterative process of agriculture development

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The identified generic problems cannot be seen in isolation from one another, they are interrelated. However, research and extension often tend to compete for power and resources, and fail to see themselves as part of a broader agricultural technology system.

CONCLUSION

National agriculture extension and advisory systems have undergone major changes during the past decades. The role of agriculture extension in national agricultural development is pertinent. The role of public sector extension in each country is shaped to a large extent by the national agricultural development goals. These could be achieving national food security, improving rural livelihoods, empowering farmers by building social capital, or improving natural resource management (Swanson, and Rajalahti, 2010). The extension uses different delivery mechanism to reach farmers. The role of extension in the 21st century should be that of the sustainers, catalysts, agency of empowerment, human infrastructure, contextualizes synergists', and collaborators. Extension services should also re-appraise its work periodically and modify its programs to suit the changing conditions. The extension worker is the last and the most important link in the chain connecting research and the farmers. A complete participatory approach to agriculture development should be encouraged. Linear approach to development of agriculture innovation should be discouraged because the farmers' ideas are left out. Furthermore, no one is in a better position to participate and to form linkages with farmers than the frontline extension worker (Terblanchè, 2005). Too many players who bring in too many divergent ideas and causing confusion among smallholder farmers should be noted. Models which do not built on what exists in response to local conditions should be avoided.

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