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THE INFLUENCE OF EXTENSION POLICY IN EXTENSION DELIVERABLES IN THE AGRICULTURAL SECTOR WITH REFERENCE TO THE SUB- SAHARAN AFRICA

[a]Elliot Zwane, [b]Phineas K. Chauke
[a] Limpopo Department of Agriculture, South Africa.
[b] Department of Agricultural Economics and Agribusiness, University of Venda.

A B S T R A C T

This paper focuses on extension policies and its deliverables in extension. It investigates the influence of such policies to the positive output of extension in Sub-Saharan Africa. It discusses the meaning of policy, policy formation process and extension. The methodology used is literature reviews from books and internet search by Google and some virtual portal of Global Forum for Rural Advisory Services. The objective of the paper is to analyze critically the policy intervention in terms of its influence towards delivering the goal of extension. The findings suggest that most of the countries in Sub-Saharan Africa do not have legislated policies. The latter creates a challenge related to the strengthening of extension services. The paper conclude with a recommendation that agricultural extension should be taken as a key in assisting their clients to be capacitated in dealing with issues of sustainability and food security. It also encourages all countries in Sub Sahara Africa to develop agricultural extension policies that guide the implementation of accountable programmes to their clients.

Keywords: Extension, agricultural policy, legislation

INTRODUCTION

Sub-Sahara Africa (SSA) consists of farming communities that mostly reside in rural areas. The rural population is expanding rapidly while accessibility to health, education and even food is becoming increasingly difficult. For instance, at the beginning of this century about 800 million inhabitants in the developing world did not have enough to eat and out of this figure, about 180million lived in Sub-Saharan Africa (Sofi, 2001). Agricultural extension is back in the agenda especially in agenda of various organizations such as Africa Forum for Agricultural Advisory Services (AFAAS) and the Global Forum for Rural Advisory Services (GFRAS) that take a front stage in advocating and strengthening agricultural services.

The objective of this paper is to investigate the influence of agricultural extension policies in SSA and the impact it makes in service delivery. This study has adopted the literature review and the use of Google search engines as a data collection methodology. In order to assist the reader the next paragraph is a background that features the importance of agriculture in few selected African countries.

Background of Agriculture in Sub-Saharan Africa: Agricultural growths in Sub-Saharan countries have been dwindling. Research has shown that agricultural production statistics consistently showed a steady decline in real growth in agricultural output. Little is known about the capacity, quality of service, and performance of extensions systems in Sub Saharan Africa (Davis, 2008:20).This situation presents a big challenge to any researcher interested in evidence based research work. Other challenges that face SSA is low agricultural productivity, a brief profile of some of the SSA countries are highlighted. A study conducted by different researchers (World Bank, 2006; Mutimba, 2010; Duvel, 2002) in developing countries indicated that agricultural development and its productivity depend on the availability of agricultural extension policies as well as its application. It has been established that agriculture in many African states, play an

* Corresponding Author:
Email: zwanefrank@gmail.com

important role although the majority of the farmers are practicing subsistence farming.

Uganda: In Uganda a contract extension system was introduced. A contract system is a form of privatization in which the government withdraws to provide extension advisory services as a sole provider, but uses other providers like retired extension advisors and meet their financial obligation in different ways such as employing the voucher systems. Sometimes vouchers are provided by the government to farmers. Farmers take the voucher to a service provider who provide such a service and the voucher is exchanged for money guaranteed by the government. The Ugandan situation underwent contract way type of reform which included NAADS, there has been a decline in agricultural productivity and this could be attributed to poor facilitation, inadequate supervision, weak accountability systems, absence of clear monitoring frameworks and the high ratio of farmers to extension workers. Agricultural productivity in Uganda was 7.9 % in 2000/2001 but in 2007/2008 was found to have reduced by 0.7 %.whereas it was expected to have grown by 6% , but it showed a negative growth of 3% (Davis, 2008).

Namibia: In Namibia, a country that is largely dependent on livestock farming, it was observed that overgrazing of communal rangeland appeared to be in conflict with the biodiversity conservation, requiring expert extension intervention (Siegmund-Schultze et al 2012.). With, 25-40 percent of the population depending on subsistence agriculture for their livelihood and contribution of 5-6% between 2004 and 2009 to the country's GDP the need for extension services cannot be sufficiently emphasized (Mutorwa, 2010).

Kenya: A study in the late eighties uncovered that Kenya's economy was dominated by agriculture. Seventy five percent of Kenyan people were then involved in agriculture (Beynon, 1988)). Kenya has a dualistic agricultural sector. Both commercial and subsistence farming farm alongside with large farms (over 20ha) covering roughly 3.6m ha of total agricultural area, and accounting for about 23% of total production and 50% of marketed output. There are about 3 million smallholder farms with an average size of 1.13ha (80% of them less than 2ha) and providing over 85% of total employment. Women provide the bulk of the labour and head a third of the households. Smallholders account for over 70% of maize production (Beynon, 1988). The importance of advisory services becomes important in servicing Kenya's small scale farmers. A recent study reflect widespread hunger in Kenya, a factor that prompted the Catholic Church to release its vast landholdings (about 3000 acres) for commercial farming (Nzwili, 2015).

Malawi: As far as Malawi is concerned, it is a land locked country which depends on agriculture. One of the problems experienced was related to depletion of soil fertility. Soil fertility can be depleted by two phenomena, one when the nutrients are not replaced at the rate by which it is being extracted in the soil. One form of handling this is to add fertilizers, compost or manure. The second way could be leaching of nutrients to the ground either due to heavy rain or over irrigation and to some extend can happen when the land is of marginal in nature, deficient of certain important elements such as potassium or phosphorus. Depletion of soil nutrients may lead to soil fertility which has contributed to poor production. The main agricultural products in Malawi include tobacco, sugarcane, cotton, corn, potatoes, sorghum, cattle and goats. Agriculture contributes 88 % to the national economy. Tea is Malawi's second most important cash crop. One can see that to produce such crops indicated above, extension advisory services should be the key in capacitating the farmers to production (Nahdy *et al.,* 2011).

Mozambique: Due to many years of internal conflict that was coupled with capital flight resulting from the liberation war, Mozambique's agricultural policy shifted towards wooing international investments in farming, especially from large corporations and commercial farmers. As noted by Healy (2013) the unintended consequence of the policy was the displacement of small farmers who were pivotal in ensuring household food security. Despite the above observation, Mozambique's agriculture is still not fully exploited. Out of 36 million hectares of arable land only 10 % is used and have yields of half as compared to those in the region. Only 3 % is under irrigation. 80% of the cultivated area is under crops. There is a challenge when it comes to livestock production because it is underdeveloped and the use of technologies is limited such as mechanization (World Bank, 2006). There is scope for improvement and advisory services, especially in that focus need to be re-shifted towards attracting smallholder famers.

South Africa: In South Africa agriculture plays an important role in the economy but a noticeable

decline has been observed at different rates, for example, from 1930 it declined by 20% and in the 1960 by 12% and 1990 by 7 % (South Africa Year book 2010/11:39). The initiative of "Zero hunger" by the Department of Agriculture Forestry and Fisheries (DAFF) attest to the fact that the problem of food security in the provinces of South Africa is a matter of concern. It is the writer's conviction that if agricultural extension could be properly applied, may play a significant role in fighting poverty.

Challenges in Sub Sahara Africa: Studies have indicated that some of the challenges that are linked to farmer productivity are not only happening in Sub Sahara Africa (SSA) but in the world in general and they include the following : accessibility to markets, access to information, access to resources such as land, modernization and technological development in agriculture production, environmental aspects such as climate, water management and soil conservation and sustainable production, risk management, sustainability of livelihoods, post-harvest management and farmer empowerment (Nahdy e*t al.,* 2011).

One wonders as to how can the Millennium Development goal (MDG) of fighting hunger and poverty going to be realized if the situation of food production is not improving, but instead beset with problems. One way of contributing to food security is to use extension advisory services to teach farmers to have self-reliance. People in Sub Sahara are involved in agricultural extension.

Concept of agricultural extension: There are many definitions of agricultural extension and their meaning also differs. Farmers, economists, and policy makers see agricultural extension differently, for example farmers view extension as a form of assistance to help improve their know-how, efficiency, productivity, profitability, and contribution to the good of their family, community, and society, the politicians, planners, and policy makers consider it as policy instrument to increase agricultural production, to achieve national food security, and, at the same time, help alleviate rural poverty (Oladela, 2011, Van Den Ban and Hawkins, 1990). In short Kumar and Tripathi (2014) see agricultural extension as a science or of assisting others to help themselves towards some desirable direction through learning by doing. Some attributes of an extension those of being a teacher and guide to the targeted recipients.

As noted by Davies (2008) agricultural extension encapsulates the entire set of organizations that support and facilitate people engaged in agricultural production to solve problems and to obtain information, skills, and technologies to improve their livelihoods and well-being (Davis,2008).What makes agricultural extension specially is the fact that it is an applied behavioral science, which is expected to bring about desirable changes in the behavioral complex of farming community, usually through various strategies and programmes of change, by applying latest scientific and technological innovation (Bokor, 2005).

Zwane (2012) recommended some intervention strategies that could render extension services more efficient, including establishing rural development centres, farmer leadership structures and rural development teams, Critical though for the achievement of these developmental objectives could be ability of farmers identify their agricultural extension needs (Funmilayo, 2014). As further attested by Dorosh and Mellor (2013) achievement of rapid agricultural growth requires engagement of small commercial farmers that will be large enough to adopt new technologies and produce significant marketed surpluses, but also small and widespread to provide spending patterns that could promote a vibrant rural non-farm sector.

Agricultural policies: Different countries have decided to develop agricultural policies to navigate solutions to overcome their challenges (Kosior, 2014; Adeoye, *et al*. 2014; Brouder, *et al*., 2014). Agricultural policies are typically perceived as types of state intervention in the agricultural sector. These interventions may be designed to influence prices of input, prices of output, and income of farmers. They may also be designed to improve the technology of farm production and institutions responsible for the administration of agricultural production and marketing activities. A study on policies reveals that a policy is defined as a plan or course of action of government, political party or business. It is a course of action, guiding, principle or procedure considered expedient, prudent or advantageous, adopted by an individual, government business etc.

In this case a policy may have different objectives for example, it may be aiming at achieving agricultural goals, addressing broad based extension constraints, transfer technological information to the farmers and ensure effective ways of delivering improved extension services. The main objective of the policy is to reduce

poverty, building strong economy, strengthening food security and increase production (Oladela, 2011).

Agricultural extension policy: It is good for countries to have agricultural policies but they should not stop there. They have to take the process further and develop agricultural extension policies. If one asks why, the response is that there is a difference between agricultural policy and an agricultural extension one. The two serve different purposes. For example, agricultural extension as already indicated could be seen as a policy instrument to achieve the goal of the Government such as food security.

There are clear guidelines that exist to assist in developing an agricultural extension policy. The guideline further identifies the features of such a policy like; an approach or system, organization, coverage, monitoring and evaluation, funding, type of the policy, and how they are enacted. All the features help to make a distinction between the two policies (Contado, 1997), being ad hoc or legislated. Another study was done to confirm the features outlined by Contado (1997) in terms of which Sub-Saharan countries have a legislated or ad hoc extension policy (Oladela, 2011). A legislated policy is a type of a policy which has gone the process of the parliament and has a fully backing of the highest law making body of a country, while on the other hand a la ad hoc is the opposite, the worst of the ad hoc is that it keeps on changing it is not stable and it affects service delivery in a place where it is being used.

FINDINGS ON AGRICULTURAL EXTENSION POLICIES IN SSA

Availability of agricultural Extension policies: This study has revealed that there are no agricultural extension policies in many countries of the Sub-Saharan countries. However if one takes a closer look at the dynamics of agricultural extension, one can use the systems or model approach to understand the performance of extension indirectly because each county was found to be operating from a particular system (Davis, 2008). When these systems are viewed from a continuum one can say that they range from top down on one hand, or centralized and mixed or Pluralism in the middle to participatory or decentralized (Oladela, 2011).

Some of the systems that have been dominating in the Sub Saharan countries include : Rural Development and Extension programme, Farmer Field School, Participatory management Approach, National Agricultural Extension and Research Programme Support Project, Participatory Demonstration and Training Extension System, Pluralistic Extension System including, Ministry, private Companies, NGOs, Unified Agricultural Extension System, University based extension system, Participatory Extension system, Ministry based approach, Commodity based approach, community extension, Cyber Extension system, Farming System, Commercialized extension system and Community participation approaches.

According to Madukwe (2006), a major problem of organizing agricultural extension in developing countries is the absence of a legal and policy framework for providing the service. What exist now as extension in many African countries are programmes from colonial masters, which have over the years been refurbished and tinkered with. They have no legal, policy or philosophical bases and are out of touch with cultural realities. Such a legal framework should be passed preferably by an act of parliament. The current situation has changed it is no longer exactly as it is painted by the researcher. Efforts may not be satisfactory.

Examples of legislated extension policies which have worked well include the following: The Smith-Lever Act of May 8, 1914 that established the Cooperative Extension Service in the United States, the Japanese Agricultural Promotion Law of 1948 created and provided funding for Japan's Cooperative Agricultural Extension Service, the Agricultural Extension Law of 1957 and Rural Development Law of 1962 in South Korea and the 1956 law that created the Department of Agricultural Extension as one of nine departments of the Ministry of Agriculture and Cooperatives (Contando, 1997;Oladela, 2011).

A study was conducted in which 27 countries of SSA were reviewed in order to establish the number of counties that use: (a) legislated extension policy, (b) countries that use provisional policy and (c) the countries that use decree and proclamation. Out of 27counties only 4 were found to be using the legislated namely Malawi, Uganda, Botswana and Kenya. Only one country that has used decree and proclamation, namely Zimbabwe, however that did not last long but was abandoned.

Zimbabwe's Department of Agricultural Technical and Extension Services was established by law in 1981 but eventually collapsed and gave way to other forms of extension policy. Twenty two countries were found to be

using Provincial Extension policy (Oladela, 2011). The problems of establishing or maintaining an effective agricultural extension service can be traced back to the lack of a realistic policy or an unstable policy framework for guiding the mission of the extension system. some of the mission could be reducing poverty and social inequalities, ensuring food security, the sustainable use of natural resources, and participatory development, are overall objectives to which extension policies can make a significant contribution.

These objectives highlight the fact that extension systems must be accessible and useful to the poorest, and address the special concerns of women farmers and young farmers (Rivera and Alex, 2004; Oladela, 2011). Despite some of the challenges of available data on the various extension systems, a close analysis of these systems show that they are making some impact and some evidence are presented.

The impact of extension systems in Sub Sahara Africa: No matter what kind of an extension system is in operation in a particular country, it is expected to make a contribution in the lives of the people it serves. It should however be noted that public extension systems in general, came under attack in the 1980s due to the cost of financing coupled with criticisms of irrelevance, inefficiency, ineffectiveness, and lack of equity (Rivera, 2004). In terms of establishing the impact of these systems, of paramount importance is the agricultural extension objectives they seek to achieve.

Each system may have specified objectives but Bokor (2005) identified four critical ones worth noting namely:

1. Dissemination of the information relating to advanced technology in agricultural production, which includes usage of improved seeds, methods of use of chemical fertilizers; 2. Application of advanced scientific knowledge to the farming and home of the rural people;

3. Scientific management of land based farming such as horticulture, sericulture, dairying, poultry by the farming community;

4. Overall improvement of the quality of life of the rural people within the framework of the national economic and social policies as a whole.

Challenges of Logistical support to extensionists: The extensionists should be competent to deliver upon these objectives.

However there are some challenges which need to be tackled if such contribution is to be realized. The first challenge relate to supporting the extension system itself especially the extensionists. It has long been observed that effective agricultural extension was be devilled by a range of problems such as a lack of a single line of command, dilution of efforts by assigning too many jobs to extension workers. Excessively large areas of operation without providing any logistic support i.e. vehicle, lack of regular training for updating knowledge of extension workers, lack of research findings appropriate to condition of farmers field, low status and morale of extension staff and the duplications of services by various development departments. At present other than Agricultural Extension Department there are several agencies and some NGO's that are involved in Agricultural Extension activities. But sadly true, there exists little coordination among these departments (Bokor, 2005).

Extension impact in Zimbabwe: In a study to assess the impact of extension services Birkhaeuser and colleagues, Owens, Hoddinott, and Kinsey (2003) cited by Davis (2008), found that the impact of access to extension services on productivity in Zimbabwe by one or two visits per year from extension agents raised the value of crop production by about 15%, a statistically significant parameter (Davis, 2008).

In another case where the World Bank's Operations Evaluation Department reviewed projects that were sponsored by the Bank in the1980 and 1990's found that three out of five extension projects in Africa were "satisfactory," which alluded to how fully the stated objectives were achieved (Purcell & Anderson, 1997). This is an indication that extension services were making an impact in the project, obviously benefiting the project beneficiaries (Davis, 2008).

Extension impact in Uganda: Looking at some extension systems such as Training and Visit (Gautam, 2000) found that T& V as a system was inefficient, ineffective, and not financially sustainable, but in countries where it has operated it has helped to improve the management of extension technicians and in some instances it has increased agricultural production. Other extension systems that came as a response to poor performance of public extension systems like privatization, decentralization, outsource, and participatory or demand-driven and Farmer Field schools, (FFS) had varying degrees of success when evaluated (Anderson &Feder, 2004). However a separate review of impact evaluations of FFS was also done and had promising results (Van den Berg and Juggins, 2007) cited by Davis (2008:19).

Uganda had introduced a system to modernize extension. One component created in 2001 is the NAADS program which has the goal of increasing market-oriented production through empowering farmers to demand and control extension services. According to Anderson (2007), who evaluated Uganda's farmer-centred National Agricultural Advisory Services (NAADS) in 2005, found that it had positive impacts on farm income and availability and quality of services.

Extension impact in Mozambique: A study in Mozambique showed that public and private extension had a statistically significant positive effect on rural livelihoods (ECON Analysis, 2005). In this case extension focused mainly on introducing new varieties, promoting natural pesticides, and promoting commercialization. The study showed that access to extension increased farm production by 8.4%. (Davis, 2008).

Extension impact in Kenya: In evaluating the impact of extension programme called National Agricultural Livestock Extension Programme (NALEP) in Kenya, it was found that 80% of respondents said that the program offered new opportunities, and 70% said that they viewed farming as a business as a result of NALEP (Crueller, Hedland et al, 2006) cited by (Davis, 2008).

Extension impact in Malawi: The influence of policy intervention has been clearly demonstrated in the Malawi. For example, farmers in Malawi could not afford to purchase fertilizers, however this problem was resolved by a policy intervention from the government in which farmers were subsidized on buying fertilizers. This has become a success story and in 2007 Malawi exported tons of maize to Zimbabwe, and selling corn to World Food Programme of the United Nations (Dugger, 2007). The subsidy scheme has improved the country's food status. It is further believed that if more investments in training and upgrading knowledge and skills of extension officers and agriculture journalists were made, more could have been achieved.

Extension impact in South Africa: One can go on citing impact of extension systems of sub-Saharan countries but space cannot permit. To conclude one can briefly look at the South African situation. Like the other 27 countries evaluating terms of the type of the agricultural extension policy it applies on a day to day basis, it was found that South Africa falls within the 22 countries that do not have / proclaimed or legislated policy (Oladela, 2011). It has provisional one, called Norms and Standard developed in 2005. A consultant (Duvel, 2002) found that a national extension system was not feasible. The aim of the Norms and Standard is to guide the extension systems operating in its nine provinces. There is no national extension approach because of the uniqueness of its provinces.

In terms of boasting the morale of its extensionists, The Department of Agriculture Forestry and Fisheries (DAFF) has conceived and implemented Extension Recovery Programme (ERP) which is founded in 2008 with an aim of addressing the critical challenges facing the extensionists such as insufficient extension personnel, lack of ICT tools to support them, lack of accountability and professionalism in extension. The impact of this programme is yet to be seen, a consultant has been commissioned started in February 2012 and it will finish in June 2012. The aim is to conduct an evaluation since its implementation, 3 years ago.

CONCLUSION

This study has revealed a number of challenges related to agricultural extension in the SSA region. Paramount to these was the absence of extension policies in most countries although at different levels. However these countries had initiated several agricultural based systems and programmes, especially those that were adopted from their colonial past. The study also alluded to policies that have worked well in certain countries outside the SSA region, such as the Smith-Lever Act in the United States and the Japanese Agricultural Promotion. Some attempts at creating effective agricultural extension services within SSA were also outlined. As regards the implementation of extension services in various SSA countries the study uncovered that:

- Zimbabwean extension officers were pivotal in raising crop production levels.
- In Uganda the Training and Visit (V & T) system was relatively unsuccessful in addressing the needs of farmers, while other support mechanisms such as out-sourcing and demand-driven services were relatively successful.
- For Mozambique public and private extension had positive effects on rural livelihoods due to extension's focus on adoption of new technologies and promotion of commercialization. However smallholder farmers were generally displaced by international farming corporations and large-scale farmers.
- In Kenya the introduction of the National Agricultural Livestock Extension Programme

(NALEP) received massive accolades from farmers.

- Agricultural extension in Malawi was relatively successful due mainly to input subsidisation to farmers that increased crop production by several tonnages in some years.
- Despite its modest developmental status South Africa did not differ much from other SSA countries in terms of implementation of effective extension services. In particular it lacked substantially in the area of legislated policies. However, the country has embarked on an ambitious plan, the National Extension Recovery Programme (ERP) aimed at addressing the critical challenges facing extension officers.

RECOMMENDATIONS

Based on the findings of the study in Sub Sahara Africa, the following are recommended:

- Since there are no legislated policy for agricultural extension, and the fact that it is not easy to evaluate the influence of an ad hoc policy, it is recommended that each country in SSA develop an agricultural extension policy that will guide its activities.
- The positive outcome emanating from extension services in most SSA countries need to be acknowledged and fostered through proper legislation and support.
- Due to population growths which need more food and competing land for residence and farming, there will be minimal additional land to practice farming. In future agriculture can only rely on sustainable management of existing natural resource bases. Increases in productivity could likely emanate from more efficient use of inputs, requiring more innovation for knowledge generation from research and extension services.

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