

Full Length Research Paper

Agricultural Extension Liberalization through Private Sector Involvement: The Necessity for modernizing Ethiopia agriculture.

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Ethiopia is a country whose economy is deep-rooted on agriculture sector. This is indicated by the development philosophy of the country which is Agriculture Led Industrialization (ADLI). The country has undergone various development strategies, where agricultural extension program takes the highest responsibility and consumed highest resource over years. Since the last six decades, when it was formally institutionalized under Ministry of Agriculture, extension services remained a public good focusing on crop production, where the marketing part of the systems was missing. During these periods, the system has been reinforced by the public sector without having someone accountable to farmers in cases of failures in services provided including inappropriate input supply. Farmers have been lacking guarantee in trying new technologies. The risk and cost of trying innovations remain with the farmers. Despite this, achievement in increased production is the success of extension roles with the support of research system. However, the follow up challenge is finding better market and improving access to inputs. This is the concern needing policy attention. Today's extension should focus on quality, cost of production, value addition, and market orientation. These economic activities call for active involvement of private sector in the system. The purpose of this study was hence to identify available alternatives with the capacity to discharge the responsibility of agricultural extension services and suggest the gradual withdraw of the public sector in extension service delivery. The existence of potential private sectors to deliver extension services in some form of commercialization is evident due the current technological advancement, increased farmers awareness, increasing need of inputs, and market orientation. Growing number of private input traders, farm business, farmer cooperatives, growing number of graduates to offer advisory service, and NGOs are potential institutions that necessitate the transfer of public roles of extension to private sectors whose complementary role improves the efficiency of service delivery, while modernizing agricultural production. The growing digital resource in transfer of information and maintaining the important technological database is an added opportunity for the system. This implies the call for private sector involvement in the extension service delivery in Ethiopia.

Keywords: Privatization¹, public extension, commercialization, private sectors, system, liberalization

INTRODUCTION

¹*Privatization* is operationally defined as the act of transferring the roles of government to private sector in part or fully; it doesn't necessarily imply cost recovery or fee based service.

Most Sub-Saharan Africans suffer from food deficits and poverty, despite a wealth of natural resources and agriculture being their main occupation. In African agriculture, agricultural extension service shares greatest portion of responsibility in improving production to have sufficient. Linked to this, the backbone of extension endeavors is the transfer of agricultural technologies that is aimed at enhancing productive capacity of farmers, and productivity of farm resources. Under this scenario, adoption of improved technologies is becoming crucial for countries in order to meet the challenges of rapidly growing population and decreasing availability of food. Moreover, the trends of shifting from resource based to technology-based system of agriculture underlie the demand and supply of agricultural information (Umali and Schwartz, 1994). To this end, a pluralistic (system) approach, inclusive of producers, input dealers, researchers and governors is most demanding for extension services to be efficient. Agricultural extension service has been the domain of public sector all years round in most developing countries. However, due to globalization and liberalization, there is a change in the approach wherein private sectors are involving in educating farmers, dealing with farm input marketing, contract farming and information dissemination. In this latest development, there is a search for new paradigm of extension system to maximize its efficiency by combining the strengths of private and public sectors. But this remains with a continued debate on what should be the role of public and private sector in agricultural extension (Byrareddy, 2000); whether there is a need to commercialize extension services; or opt for privatization of the service. Now days, potentials are emerging in areas of private sector services in the world, where a private sector development in Ethiopia is not exceptional. Yet, the inference is whether to replace the public extension; or to provide complementing role with the existing public sector (Mathewos and Chandargi, 2004).

The back ground for initiating an alternative extension structure (reform) is the growing privatization of economic activities that has been especially evident since early 1980s and has accelerated in the 1990^s (Byerlee and Echeverria, 2002). The early 1990s experience in Ethiopia when farmers produced surplus and damped most grain was the problem of lack of complementary economic activities-specifically the market issue. Despite, the public extension systems lacks accountability to the farm producers and extension package users; the greatest farm labor remained slave to the public input distributing agents. There is no liberal access to farm inputs and free market channel for produces. The demarcation of roles between public and private sectors is then assumed to help design appropriate model for private-public joint effort in provision of extension services. The service will address both the production sector and the marketing sector. This paper explored the diversity inherent in Ethiopian extension systems, identified the major extension activities included in the system, and compared that with the activities judged and scored in case of India. This analysis and exploration indicates the necessity for today's Ethiopia to reform its extension system in a way it captures the potential capabilities and efficient role of private sectors that can significantly contribute to achievement of the national Growth and Transformation Plans and modernization of Ethiopian agriculture.

METHODOLOGY

The study on the role of private sectors in agricultural extension was conducted in India by the current author. Comparing the then Ethiopian development with that of India, a possible public private partnership model was suggested by Mathewos and Chandargi (2004). On the background of the then recommendation and the current status of the national extension system, series of research comments have been reviewed. This particular paper deployed review of the related materials to analyze against the prevailing potential of private sectors in the country. The review has been complemented with analysis of the trend in Ethiopian extension services of 50years back. A practical observation and interview with key informants from farming community, cooperative union, private input dealers, and development agents has also been used as reliable information source for the analysis.

Attempting to measure the extent to which private sectors perform extension activities, those activities regarded by public government as extension activities were identified and scrutinized. These activities were categorized as major activities of extension personnel(Mathewos 2002). The same were screened by judges and tested using Kendal's correlation coefficient. These lists of activities have also been identified as the major component of Ethiopian agricultural extension services, which is purely public owned service. The key objective of this study was hence to analyze if the existing and emerging private sectors have the capabilities to replace or complement the existing public oriented extension services and recommend as alternative approach for Ethiopia. The activities that were statistically tested for relevance have been adopted to evaluate the capacity of private sectors in Ethiopia to deliver extension services. Comparing the efficiency of service provisions in the two cases, this paper pointed out factors that necessitate the reform of current Ethiopian extension system while recommending the possible ways of reforming the system. The demand of farmers for effective extension services, the capacity, experience, and relative importance of private sectors are considered in suggesting the reform. The long years of tension in the farming system for being determined to look for the single hand of the government for every input appeared demanding liberal system of input-output transaction.

RESULT AND DISCUSSION

Ethiopian Extension System; Historical Analysis

The genesis of agricultural research and extension as well established institution goes back to 1950^s with the establishment of the higher learning institution (Imperial Ethiopian College of Agriculture and Mechanical Arts (IECAMA)-the current Haramaya University. The institutions were modeled to emphasize the integration of teaching, research and extension. The extension wing was later transferred to Ministry of Agriculture (MoA) (1963), thereby marking the beginning of government funded public extension service. Since then, a number of methods, approaches and strategies have been implemented aiming at improving agricultural production and productivity. The Comprehensive Integrated Package Projects (1967-1975), IAR/EPID joint programs (1974), IAR/ADD joint programs (1980) and the Peasant Agricultural Development and Extension Project (PADEP) (1985) are among the projects. However, the impacts of these interventions were not significant in terms of improving the life of people in general and the mode of farming in particular (Habtemariam, 1997; Beyene *et al*, 2000). From 1986-1995, other various approaches implemented including the National Program for Food Self Sufficiency (1986-89), and Modified Training and Visit system (TandV). With the new regime (1991), the focus changed to a free market economy; and extended package program (through SG₂₀₀₀) became an intervention that begun penetrating into rural areas with participatory approach. In this case, greater emphasis was given to increasing production using improved varieties of crops with application of chemical fertilizers and pesticides. Participatory Demonstration and Training Extension Systems (PADETES) is again designed to appreciate the participatory learning. However, it indicates only the general statement and directives envisaged by the central government (Habtemariam, 1997). Thus, extension service remained with input distribution than farmers' education. During these periods, advancement in technology promotion was hampered by lack of farmers' organization, private sectors' involvement, and village level information center. The concern in analyzing the system is hence, to question whether there has been enough food production, market guarantee, sustainable economic growth and visible social change.

Despite the increase in agriculture production, lack of private sector engagement and farmers' organizations and/or the link, exerts market failure in the system. In spite of the achievements and strengths of the current extension system, some controversies on how the system should be organized ever existed. The persisting question is whether extension is to be organized functionally by agro ecology, by commodity based on enterprise, or potential of an area; whether extension agents are answerable to the community? or to the government? and what should happen if the technology fails? These are agendas for today's policy makers. From this point of view, one can judge whether Ethiopian extension system is a complete design or has potential gaps. Study by Ethiopian Economic Association/ Economic Policy Research Institute (EEA/EPRI, 2006), on evaluation of Ethiopian agricultural extension observed serious gaps on marketing of farm products. The same indicated the need of private sectors' involvement in agriculture extension service delivery. According to Chandra (2001), the follow up challenge to increased production is finding better market. Today's extension focus should therefore be on quality, cost of production, value addition, market orientation, and cyber application on agriculture.

Reporting on the approach and methodological gaps of the public driven Ethiopian extension system, Davis et al (2009) commented that the system is focusing only on crop extension, when other potential sectors are existing; the policy failed to look at other extension providers and alternative methods; it neglected productivity issues, and the package formulation is centralized. Despite these lacunas, there is a celebration that production is increasing resulting to farmers' transformation from subsistence to commercial orientation. If this is the case, system reformation ought to in parallel with transformation of farmers. However, the reality is not the same. Under this scenario, the current commercial oriented farmers can hardly be treated with the same fashion as earlier. Their confidence is declining on the effectiveness of public extension service delivery; as input supply system is highly bureaucratic and is insufficient. Marketing farm produce has again faced with monopolistic situation. Both production and marketing remained under public sectors heavy hand. The systems however demands liberalization (free movement). These situations call for an alternative paradigm, where market based solutions and privatization of extension is assumed to be effective and sustainable base for development (Wongtschowskiet al, 2013). Practical reports reveal that Ethiopian agriculture lagged behind the target in the first GTP that was mainly due to traditional farming and marketing systems together with limitation of private sectors engagement and insufficient supply of inputs during the program period (H.E. Ethiopian Prime Minister; Haile Mariam Desalegn, *Ethiopian Herald, Friday, August 21, 2015*). According to the report, this state of affairs sets priority to increase private sector engagement in the system.

Alternative Extension System; Comparative Analysis.

Realities expressed in the trend analysis of Ethiopian extension system, and review of the GTP-I performance entails a search for alternative paradigm. To this end, the following subheadings describe available capacities to look for most appropriate reform in the current extension system in the country.

Major extension activities performed by private firms.

In production-marketing-utilization continuum, it is interesting to understand the probable reasons for market failure and for lack of post-harvest handling. Despite that farming is said to be transformed from subsistence to market orientation, the existing extension system remains the same. It is true, a system is dynamic; meaning, and transformation of its effect calls for reformation of the system. Therefore, pertinent questions to be asked are if Ethiopian farming is commercialized, why the current commercial orientation of the farming is not able to bring a reform on its extension system? Can commercial farming be effective if private sector roles are missing? When potential private sectors are emerging? why does government remains with the burden of farmers' inquiries; input needs, market problems, storage and transportation? How long do farmers look at the hands of the government for input acquisition and product marketing? The system totally seems lacking free transaction and liberated farm operation. There appears a wider gap between input side and the farming side. Farmers chance of getting required inputs had become on the best will of the government agencies. This drives farmers for opting freedom of operation.

In India, many of the private firms perform extension functions, viewed as one function of marketing their inputs. Marketing officers oversee extension related activities. Schwartz (1994) reported that private sectors are providing certain services under some conditions. Among major activities, input supply, farm/ home visit, group discussions/ meetings, and farmers' training are those activities that private firms are operating in connection with their business. In contrary, Davis, et al (2009) reported that Ethiopian farmers are challenged by lack of seeds, credit and basic trainings to modernize/ diversify their production and access market. It seems a paradox hearing that farmers are lacking sufficient inputs, technical trainings and farm advice in times when the country has invested huge budget to produce over 60,000 Development Agents, and established over 8500 Farmers Training Centers (FTCs). These challenges are mainly attributed to the top-down nature of the public extension program planning; and irresponsiveness of extension service providers.

Comparative advantages of private sectors in extension service delivery

Despite the achievements, diagnoses of gaps give the chance of opting best alternatives. This depicts the fact that extension service by itself is not a complete domain of the scenario. Its efforts would be of no vain if active research is missing. Active farming community and stakeholders' linkage is also mandatory. This indicates a system approach which guarantees efficiency in dealing with community services; and still sectors have comparative efficiency over one another. To help categorize sectors based on relative role advantage, activities identified as major role of extension services in technology dissemination were listed (Mathewos 2002). This includes, Agricultural input supply, farm /home visit, meetings/ group discussion, method demonstrations, credit service, farmers training, result demonstrations, field day/ farmers' day, and audiovisual presentations. Accordingly, the following private sector categories were identified with comparative role advantage in extension service delivery.

- **Profit oriented private sectors.**

Agricultural input supply, technology demonstration, farmers' training, supervision and farm follow up are activities for which POP sectors have comparative role advantage. According to Mathewos(2002), in order to remain competitive, private input suppliers provide advice and guidance with the sale of their products. That is why the study (*Ibid*) indicated that input supply is efficiently performed by private dealers. This responsibility is attached with accountability and credibility of the sectors that determine their existence in the market. Effectiveness of the sector correlates with their market efficiency and the competition under which they operate. Yet, government involvement for regulating the system while encouraging healthy competition among private service providers is recommended. Similarly, Rasheed and Sadamate (2000) noted that, fertilizer companies conduct demonstrations on fertilizer use (as prescribed by agronomists), and arrange soil-testing facilities with provision of technical services. This reveals that with some legislative reform and inclusive responsibility in the licensing procedure, the input traders would take part in the service delivery in part or wholly.

- **Private for no profit**

This sector includes development NGOs, farmers' organizations, local Institutions, and micro finance institutions. In this case, the sector demonstrates comparative importance in community empowerment, rural capacity development, infrastructural development, credit access and capacity building at the farming level. For better marketing, establishing cooperatives and encouraging private sectors is crucially the responsibility of government. The case of India is exemplary with respect to the role of cooperatives and Self Help Groups (SHG). In Ethiopian context, active role of NGOs like IDE-Ethiopia, ACID/VOCA, Farm Africa, AgriService, SNV, Self Help Africa and many other similar NGOs as well as cooperative unions that are working for improving economic capacity of farmers through value chain development can be mentioned. The relief oriented NGOs are currently reformed and redesigned their programs into development and then advisory services. These are the other potential sectors (nonprofit) to offer private extension services. The scale and potential availability of these private sectors will remain a follow up research in thinking of the alternative paradigm.

Does Ethiopian extension system needs liberalization and why?

The question of whether there needs to reform and redesign Ethiopian extension system from public orientation to privatization/ or commercialization persists with extension policy analysts. Despite lack of sufficient research on the case, there are indications to look for alternatives in the system. Not only the need, but availability of potential private sectors to take up or partner with the government, matters the importance of the reform. The system has been under tension for over five decades. The subsequent governments remained input feeders to the farmers and grain collectors from the farmers. These operations however did not confirm the government efficiency in the system. Missing the private business entities in the systems made extension services as a public best will operation that cannot realize free access to input and help farmers enjoy free market. This is why the system is said to need liberalization.

For Ethiopia, the system itself is calling private sector's involvement, because market instability, to a great extent, emanated from the public oriented extension and monopolized input supply with no accountability in service delivery. This results farmers to fail due to lack of market protection. In case of privatization, market grantee can be given to farmers in the form of forward and back ward contracting with input dealers(Mathewos and Chandargi, 2004). Added to this, Niek(2009) reported of countries that failed to protect their farmers and got their agriculture stagnated. He noted the case of Britain (1880 -1930), whose agriculture productivity growth totally stagnated as a result.

As a lesson, the rapid growth of Indian agriculture sector is the efficient delivery of inputs and provision of marketing services through private sectors and cooperatives. The green revolution of 1950^s is the event for the birth of agribusiness firms and private extension services that continued to take part in its extension service delivery. Findings of Rogers (1983) support the fact that private sectors are playing a predominant extension role for particular inputs, particular outputs in a particular area. In Ethiopia, extension system has not been inviting private sector for the last decades. However, the current development in agriculture demands the keen participation of private sectors in the whole system (production-processing-marketing). Reviews indicate that there is a potential area for involvement and active participation of private sectors to lead the gradual withdraw of public sector. But if the system fails to encourage the active involvement of private sectors in extension service provision, the national extension service will remain public monopoly and the attempt for commercialization of agriculture; as well the philosophy of Agriculture Led Industrialization remains textual. This signifies the most decisive support of private sectors to the national extension system. When countries like India use private sectors as key players in extension system, Ethiopian development policy has not considered the effective role of this sector. The free market economy reform of the current regime, gave an insight to private sectors that have been emerging. The issue is however, beyond emerging; potentials of private sectors need to be put in action to complement the role of government.

Does The Analysis Call For Privatization?

When the analysis reveals performance gap in Ethiopian extension system like it was reported by EEA/EPRI (2006), the need for reform must be crucial. This complemented by practical experience of Indian, indicates the existence of potential private sectors with the capacity to offer extension services in some form of commercialization. It promotes competition and accountability among private service providers which is lacking in part of public extension; it

also helps to regulate unexpectedly changing input price. Production orientation of the public extension also lacks responsibility for ensuring market; and hence, the value chain part of the system is missing. That is why privatization has appeared as alternative approach and strategy. Speaking Indian context, one has to look into the controversial argument from public extension systems to private, either as a substitution or complementarities. This provokes professionals to study the world extension and share experiences for conceptualizing privatization of the system. Even if it takes time for complete privatization, especially in countries like Ethiopia, some sort of partnership with public sector is most demanding. In agreement to this fact, EEA/EPRI, (2006) reported as now being a high time for active involvement of private sectors in provision of extension services in Ethiopia. Added to this, Davis, et al (2009) indicated the fact that various private sectors are emerging as potentially important for the country; which necessitates Ethiopian extension system to draw out ways to enhance the role of private sectors.

The promotion of export-oriented agricultural production is one of the very important means in the integration of the national economy into the global economy and increasing the income of the poor farmers. Today's Ethiopia is promoting export commodities, over 90% of which is accounted for by agriculture sector contributing to 45% of the GDP (Belay and Ferdu,2008). This indicates the commercial trend of Ethiopian agriculture; which in turn necessitates the need for commercialization/ privatization of extension system that frees the government sector from bearing the burden.

• **Indications for the need and possibility of private extension service.**

Assessment on the capacity of private sectors in Ethiopian needs a wider scale research. Nonetheless, without determining the degree of capacity in areas of private sector to take up the responsibility of extension service provision; this contextual analysis considered the possibilities based on observable facts. Johun, et al (eds.) cited the report of Ethiopian Federal Cooperative Agency as there are over 25,000 cooperatives out of which 3800 cooperatives are grouped into 174 unions. 2800 cooperatives are engaged in production and marketing of commercial products including dairy, honey, fish and other vegetables. This depicts that there is considerable scope for using existing farmers' organizations besides the private dealers as a base for strengthening production and marketing extension services. This is the loop hole to get agriculture extension service reformed in a form that supports country's growth and transformation. The following are few lists of indicators for availability of potential private sectors to actively involve in extension service provision.

1. *The growing number of private input dealers/ traders*
2. *The growing private farm business (Agro industries, seed producers...)*
3. *The growing number of farmer cooperatives, and unions (with clear institutional roles)*
4. *The growing information need of farmers with efficiency and accountability; that the current system could not satisfy*
5. *The growing number of professionals who can offer agricultural advisory service*
6. *The reformed NGOs from relief to development and then farm advisory services*
7. *Establishment of innovative institutions in the form of agriculture advisory services*
8. *Growing number of Micro Finance Institutions; rural Saving and Credit Associations*
9. *The growing competition in national and international market*
10. *The state of recurrent market failure that discourages commercial farmers*
11. *Declining confidence (and loss of trust) of farmers on effectiveness of public extension services*
12. *Growing digital technology for transfer and storage of technical information*

Besides, the encouragement to privatized extension services which may create the question of sufficiency/inclusiveness, sustainability and public interference; an alternative mechanisms and model for public-private cooperation recommended by earlier reports (Mathewosand Chandargi, 2004) could be adopted. Supplementary to that, the policy environment must be enabling for the growing interest of entrants into the privatized extension and farm advisory services.

CONCLUSION AND POLICY RECOMMENDATIONS

Ethiopia, hosting over 85% of farming population started improving agricultural sectors through technology dissemination and extension service delivery in early 1950^s. For the last over half a century, only the government owns the system as public good. This long period involved three regimes. Almost in all the regimes, extension was treated as service than farmers' learning. Relatively, the current regime tries to make the system participatory with farmers, and yet the various important development sectors that could have had significant input to the system were not considered. A program evaluation research on the performance of Ethiopian extension system often shows gaps which

could have been filled by the active involvement of private sectors. A comparative analysis between countries also shows that Ethiopian system is more behind the reach of others. Relevant comparison is with India that has started private oriented extension with the birth of private agribusiness firms that have emerged due to the success in green revolution of the 1950^s.

The case of current Ethiopia is promising with basic infrastructure development; and in areas of farming, some attempts are observed. But considering the long years old extension in the country, the move is said to be slower. The public oriented extension service delivery tried to bring farmers up to some level, but the planned modernization and commercialization is still a question. If transformation of farming community is reported as achievement of the last years, that did not follow with reformation of the system. In this case, inadequacy and service gap is observed in the system. This situation demands necessary adjustment, which is possible through incorporating the best contributions of private firms. Various extension approaches/ models might have been used in one form or the other, but in general the control of clients over the system is negligible. Therefore, the recommendations in this paper provide a wide scope of possibilities for increasing efficiency and quality of extension services by encouraging private sector's involvement in areas where they show comparative role advantage and enhancing the controlling power of clients on the system. A point to underline here is, however, that **privatization** doesn't necessarily imply cost recovery or fee based service.

Attempting for the reform, attention should be given to the resource poor farmers who are much dependent on public services and the remotest areas which private dealers could not reach because of cost effectiveness. At the end, this paper gives the following key recommendations to consider in extension system reform.

1. Private sectors can perform extension activities through production and distribution of inputs. Hence, government need to relief from the burden and emphasis on institutional and infrastructural capacity development.
2. Contractual arrangement between private seed producers and farmers is a good start in fostering contractual mode.
3. Government assistance is needed in exploring market opportunities as agricultural production tends to increase with privatization of the services.
4. Farmers should be assisted in developing effective marketing of seeds and their produces in order to ensure sustainability. In this respect, governments need to provide assistances in marketing and utilization, reasonable pricing of inputs and market protection for farmers.
5. Government need to support private sectors and encourage them for investment on agro based industries in rural areas in order to promote agriculture led industrialization. It should create enabling environment for entry of private sector services providers.
6. Public research should emphasis on development of production technologies, taking into account the current national issues; food security, marketing, and commercialization.
7. Innovation systems approach has a high potential in agriculture sector transformation and hence should be established and strengthened.
8. Finally, the government should gradually withdraw from the service due to the fact that private sectors have comparative role advantage extension service delivery. The focus of government need to be capacity building for private agro enterprises, farmers, cooperatives, unions, local level institutions, and graduate entrants into the business and strengthen the link through established innovation platforms.

The following action points are also worth considering in the reform process.

- Capacity building for existing extension workers on private extension system and a gradual transfer of development agents (DAs) and FTCs to private service providers
- Orientation to agriculture input dealers; that extension service provision may be included in the legislation (licensing) until warm competition is created. This competition is sought to enhance quality of services and increases the level of accountability of the service providers;
- Promoting context based, commodity based, and agro ecology based, extension package formulation. This specialization supports the development of private extension service;
- Integrating farm commodities with industries through effective marketing channel; where market information becomes an important input for extension service
- Integrating farmers, agro based industries and marketing agents (including brokers).
- Promotion of farmers contractual farming with business enterprises;
- Integrating cost effectiveness with accountability and quality of extension services.

Finally, this paper signifies privatization model to gain the effective role of private sectors in extension service provision making their involvement a necessity for modernized Ethiopian agriculture and liberated Ethiopian farmers.

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