

## **Agricultural Extension Reform in Tanzania: Vision and Guiding Principles**

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### **ABSTRACT**

*A case is made for the need for agricultural extension reform in Tanzania. The paper not only brings to light issues which necessitate agricultural extension reform such as financing, privatization of extension services, cost-effectiveness, relevance, emergence of farmer-led initiatives, changes in extension practice and sustainability, but also provides the vision, guiding principles and their implications, and strategic options. The vision for extension is meant to provide a shared ideal for various extension stakeholders including providers who although may be different in several-ways, will strive to work according to the vision.*

**Key words;** Agricultural extension reform, Tanzania

### **Introduction**

Agricultural extension, which has mainly been provided by the public sector, is one of the prime movers of the agricultural sector in most third world countries, including Tanzania. While the institutional affiliation, organizational set up and financing may vary from one country to another, the general purpose of agricultural extension systems is the same, and aims at improving the productivity of agricultural systems, raising the income of farm families and improving the quality of life of rural farm households. In addition, it aims at maintaining and conserving the natural resource base for sustained agricultural development and enhanced food security.

Although agricultural extension is seen as an important part of the agricultural sector, serious concern has been raised over time regarding its inability to adequately influence the development of the sector. It can be argued that agricultural extension has, among other things, been characterized by:

- Lack of ownership by farmers
- Unresponsiveness to farmers/pastoralist needs
- Poor coordination
- Poor linkages between farmers, extensionists and researchers
- Poor inter-sectoral linkages
- Poor agricultural support services and inadequate macro-economics policies
- Low efficiency – questionable sustainability

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- Wide criticisms by farmers, donors and other stakeholders (Mattee and Rutatora, 2002; MAC, 2000a; URT 1999; Keregero, 1991).

In an attempt to resolve the above concerns, this paper provides the rationale for agricultural extension reform and a vision statement which is meant to offer a shared ideal for the various extension providers. In accordance with the vision, guiding principles and strategic options are also provided.

Overall, the paper is based on various agricultural sector reports (including evaluation reports of agricultural extension projects), proceedings of a number of agricultural extension workshops and consultations with different stakeholders (MAC, 2000a 2000b, 2000c, 2000d, 2000e, 2000f).

### **The rationale for agricultural extension reform**

The following observations point to the need for agricultural extension reform in Tanzania. Lessons from past attempts and current ones reveal that the government in collaboration with donors has invested heavily in developing the agricultural extension services. In an effort to increase smallholder productivity the government launched the National Agricultural and Livestock Extension Rehabilitation Project (NALERP) in 1989 with the assistance of the World Bank, and the Southern Highlands Extension and Rural Financial Services Project (SHERFSP) funded by IFAD starting from 1991. The National Agricultural Extension Project Phase II (NAEP II) also funded by the World Bank, was launched in 1996 to continue to improve the delivery of extension services to smallholder farmers for increasing their productivity and incomes. However, reviews of the projects show that the impact to date has been disappointing particularly as exemplified by the continued poor performance of the agricultural sector (MAC, 2000a, URT, 2001).

The situation at the household levels is such that poverty is still pervasive and largely rural where about 50% of all Tanzanians live in poor conditions, while 36% live in abject poverty. In addition, most households in rural areas are food insecure. The statistics regarding food security in this country as gathered from the 1997 World Food Summit show that at least 40% of the population of Tanzania live in food deficit areas, where production is lower than consumption, and nutritional disorders affect 40% of the population. It has also been shown that about 25% of the Tanzanians are chronically malnourished. As an example, more than 50% of the households in Morogoro and Dodoma Regions are food insecure (MAC, 2000a).

Besides the above observation, it has been realized that currently, financing of agricultural extension activities is highly dependent on external funding (e.g. NAEP II, SHERFSP and limited number of NGOs). Meanwhile, the government funding of extension services has been on the decline since the 1980s (Isinika, 1995; URT, 2000). Since the budget for extension services, as is the case for the entire

government, is therefore highly dependent on external financing, it is unlikely that such services will be sustained financially from government tax revenue at the end of the NAEP II. For example, an evaluation of extension services in Karagwe District reveals that most agricultural extension activities may cease once NAEP II and other projects come to an end (Rutatora *et al*, 2002).

Generally, the current level of funding for extension on Tanzania is insufficient to provide adequate coverage for all groups of farmers, especially those who are resource poor and at the subsistence level. Consequently, the needs of resource farmers, who include women and young farmers, are largely neglected. In addition, the consequence of under-funding (as only resource rich will be targeted) tends to be an increasing the gap between the rich and poor farmers, increased levels of poverty among many farm households, and accelerating rural to urban migration, even if employment opportunities are not readily available in the destined urban centers

Finally, it is argued that sustainability of agricultural extension services is dependent on coherent long-term plans. However, in Tanzania, extension programmes have been highly dependent on donor funds, which has led to short term and ad-hoc planning and implementation. Even NAEP II and the IFAD funded SHERFSP projects documents did not spell out institutionalization strategies including funding of extension services beyond the life of those projects.

The current political and economic climate in Tanzania calls for a different approach to extension which complements the trend towards economic liberalization and public sector reform, among others. The government has embarked on a major reform initiative under which the government's role will be limited to the functions of governance, while the provision of many of the public services will be made by local government authorities and the private sector. In view of this, perceptions are also changing (even amongst donors like the World Bank, FAO, USAID, DANIDA and IFAD) from previous understanding of extension as a public good that requires public provision to prevailing advocacy on cost sharing and privatization of extension services. There is also a growing recognition that uniform, hierarchical government bureaucracies are not the best way of providing a flexible service that is tailored to the needs of different categories of farmers and varied agro-ecological and economic conditions.

In this context, it is expected that public services, including agricultural extension will be provided on a demand-driven and sustainable manner. Such services are expected to respond to the needs of different categories of farmers, and the farmers, in turn, will have to meet some of the costs of providing such services.

In view of the above, the government has decentralized the provision of extension services to the District level, which calls for re-orientation and restructuring of the

whole extension service, and formulation of policies and procedures. This is essential not only to come up with strategies for mobilizing local resources and making extension services meaningful to clients, but also make extension staff accountable to local government authorities. Likewise, realization of a demand driven extension services as espoused by the Ministry of Agriculture and Food Security and the Ministry Water and Livestock Development, requires a deliberate and well thought-out implementation strategy, which is not reflected in the current government documents (Rutatora, 2000).

Additional observations (e.g. URT 2000, MAC, 2000a, URT 2001) reveal that several NGO and farmer-led initiatives have, over time, supplemented delivery of the public extension services, but their experiences have not been formally integrated into the extension system nor has their potential to reduce public expenditure and improve quality of extension service been considered. In the past, the government discouraged private sector entry to provide extension service in crops or enterprises of their interest for no apparent reasons. But now the government is encouraging such steps (MAC, 1997a; URT 2001). Good practice examples include such NGOs as Uluguru Mountain Agricultural Development Project (UMADEP), Rural Integrated Projects (Mtwara & Lindi) (RIPS), Mogabiri Extension Micro Project (MEMP) and Community Based Extension Project for Pastoralists in Monduli (CEPAM).

It is envisaged that even though NGOs/CBOs depend on donors, they will for the foreseeable future continue to be active in providing agricultural extension. Thus the issue is how to come up with protocols of coordination and/or collaboration with government initiative.

Our understanding of how the activity of extension works has also changed over time, from the technology transfer model to the present participatory problem solving approaches, which aim at empowering farmers and their farm families. These participatory methods, which are based on adult education models, recognize the need for greater interaction and dialogue between farmers and facilitators, and acknowledge the farmers' expertise in identifying problems and selecting options for improvement (Rogers, 1996).

The frequent call for participatory approaches and recognition of farmers' knowledge derives partly from the failure of transfer of technology approaches. In addition, it comes from better empirically based understanding of how farmers compare options, minimize risk, adapt practices, and seek information to assist them in their decisions. This notion fits very well with the idea of district focus which requires extension services to be nested at the lowest level of government.

From this discussion, it is clear that the landscape is changing with regard to the provision of extension services in the country in terms of key actors, approaches and management styles of extension services. At the same time, it is becoming increasingly evident that the extension services have become more and more dependent on donor funds be it through the Ministry (e.g. NAEP II) or NGOs. The question as to what will happen when donor funds run out is now no longer rhetorical. There is now a real concern about how the extension services can be made to work in the long run, and how various actors including the intended beneficiaries can support the extension services, so that they continue to perform at the expected level in the future. Of late, there is a growing feeling amongst stakeholders that extension services should be demand – driven, cost-effective and sustainable.

The government in collaboration with the World Bank is currently in the process of reforming the agricultural extension services so as to bring the services in line with the current socio-economic situation, and the aspirations of the agricultural sector reforms. These reforms present serious challenges to all the stakeholders, particularly since there are many cross-cutting issues which will need to be taken into account in formulating long-term strategies which will ensure that the extension services are ultimately demand-driven, cost-effective, and sustainable. Some of the important issues and challenges which must be considered as part of the reform include:

- How to create a demand-driven extension service, which is accountable to the clients?
- How to ensure financial and institutional sustainability of extension services?
- To what extent and in which way can extension services be privatized and given a more commercial orientation?
- How can the various (actual and potential) extension providers collaborate and complement each other?
- How can the positive experiences of the many on going local initiatives be mainstreamed into the District focused extension services?
- What are the perceptions of local government authority leaders, extension staff and farmers, with respect to the changing role of agricultural extension and its key actors?
- How to build the capacity of local government authorities to deliver extension services effectively, and
- How to make agricultural training more relevant to emerging needs of the reformed extension services?

The implications of all these, requires the government to develop a clear vision and devise a plausible strategy for extension such that it is pluralistic and encompasses the adoption of multiple approaches to extension.

**Outline of the Vision for Extension to the Year 2010**

The vision for extension is meant to provide a shared ideal for various extension stakeholders including providers, who may be different in several ways, but they will strive to work according to the common vision. In order to make the extension vision relevant and appropriate to the context in which extension operates, an active stakeholders' participation in the process of coming up with the vision was deemed essential. A number of Workshops involving stakeholders (e.g. Ministry of Agriculture and Cooperatives, (MAC), Ministry of Regional Administration and Local Government (MRALG), Planning Commission, World Bank, NGOs, Parastatals, farmers and farmer organizations, private sector, educational and research institutions) were held at different times and venues.

The process entailed participatory analysis of the current situation of the agricultural sector in the country and how it should be developing in future, and the role of extension in this overall development process. In either case, deliberations led to proposing a desired vision and guiding principles for agricultural extension for a limited time frame of ten years. The proposed vision takes into account issues of sustainability. It also fits well within the national Development Vision (TDV) 2025, the National Poverty Eradication Strategy (NPES), the Agriculture Sector Development Strategy (ASDS), the Rural Development Strategy (RDS), and has adhered fully to the Agriculture and Livestock Policy of 1997 as well as the Co-operative Development Policy of 1997 (MAC 1997a; MAC 1997b). All these documents place emphasis on promoting the private sector, modernization of the agricultural sector, ensuring basic food security, improved farm incomes, rural poverty reduction and sustainable management of natural resources.

According to the Agricultural Sector Vision "The government and stakeholders in agriculture envisage an agricultural sector that by the year 2025 is modernized, commercial, highly productive and profitable, utilizes natural resources in an overall sustainable manner and acts as an effective basis for intersectoral linkages" (URT, 2001:32).

For the agricultural sector, the main instrument for realizing the national vision is the ASDS, whose objective is to create an enabling and conducive environment for improving profitability of the sector as the basis for improved farm incomes and rural poverty reduction in the long term. The interventions (of which extension is one) to achieve this objective are intended to facilitate the participation of the private sector in agriculture.

In view of the fact that the ASDS will be implemented under severe public and private financial and human resource constraints, it was deemed essential to come up with priority strategic options or interventions. Among the identified strategic options is the agricultural extension service, which will include the participation of

both the public and private domains, even though the primary responsibility to provide guidance and coordination rests with the local government authorities.

It can generally be argued that while agricultural extension was seen as a national responsibility in terms of establishing policy, regulations and direction for the conduct of extension work, execution of extension programmes was regarded as a national responsibility shared between the public agricultural extension system, the farm families to be served, farmer organizations, parastatal and private sector

firms that are engaged in technology transfer, and non-governmental organizations that seek to improve the quality of life of rural households.

In view of the changing role of agricultural extension in Tanzania, it was proposed by the stakeholders that the agricultural extension system should be guided by a vision, guiding principles and strategies as follows;

### **Vision Statement**

*The agricultural extension services in Tanzania should, by the year 2010, be participatory, demand driven, carefully targeted, cost-effective, gender sensitive and provided in a collaborative and coordinated way involving various stakeholders, including the beneficiaries so as to enable the farming and pastoral communities to utilize available resources in an effective and sustainable manner in order to improve their incomes and overall standard of living.*

The vision statement is derived from a good understanding of the agricultural situation in the country, and how it should be developing in the future, and the role of extension in this development. It seems that given the current situation of the sector, and the small-holder farmers in general agricultural extension should aim at:

- Stimulating increased agricultural production, agricultural incomes, and consequently increased standards of living.
- Stimulating increased access by farmers and/or pastoralists to knowledge, skills, the factors of production and markets.
- Empowering farmers to create demand on social services including extension.
- Improving the capacity of farmers to produce on a sustainable basis, and to work with liberalized input and output markets.
- Enhancing, on a continuous basis, agricultural extension staff knowledge and skills on new technologies and methods of dissemination.

For different stakeholders and/or providers of extension services to be able to work toward the above stated vision, it was deemed relevant to come up with guiding principles, which are discussed below.

### **Guiding principles**

In accordance with the vision, the extension service must adopt the following guiding principles:

- i. *Shared responsibility between the various stakeholders including the beneficiaries (in terms of planning, decision – making, financing and evaluation).* The idea of having a variety of providers of extension services, endowed with different resources, approaches and methods, possibly working with different categories of clients call for a shared responsibility in order to promote a farmer-led extension system that is cost-effective, efficient and sustainable.
  
- ii. *Farmers/pastoralists empowerment through participatory approaches*  
Empowerment is a concept that goes beyond participation and is seen as a process that enables people to understand the reality of their environment, reflect on the factors shaping that environment, and take steps to effect changes to improve the situation. Thus, basic processes that farmers go through during participatory rural appraisal, participatory technology development, working groups and farmer-to-farmer extension are meant for empowering farmers. Empowerment helps farmers and pastoralists to develop a sense of autonomy, ownership and independence and are able to view the success or failure of a given project as their responsibility rather than the responsibility of experts or outsiders. This is a cornerstone for a demand driven and farmer centred extension service. Empowerment as such aims at providing people with the knowledge that will give them control of their world.
  
- iii. *Motivation of farmers and pastoralists through formation and strengthening of farmer and pastoral organizations.* It is now recognized that strong farmers/pastoralists organizations can be instrumental actors in most rural development ventures including extension. It is believed that through farmer and pastoral organizations, they can be able to increase their political and economic power to influence policy decisions, and to propose plausible solutions to their problems. Experience shows that there is a strong connection between farmer/pastoral organizations and collective action for empowerment, which is enhanced through participatory approaches. Farmer organizations have two central functions regarding extension.
  - o To provide extension services for their own members (farmer-to-farmer extension)
  - o To serve as a link between farmers and other agencies (public and private) offering extension services.



These organizations may attempt to coordinate and draw upon the services of a variety of institutions which impact on technological change, such as credit, input supply, marketing and research.

- iv. *Stimulation of strong community based institutions (with minimum government interference) to take care of farmers' needs e.g. credit, inputs and marketing.* This is similar to farmer/pastoral organizations but of a different magnitude. Extension staff have the responsibility to build up the capabilities of small groups and organizations within each community to undertake the process of problems identification, and problem solving through dialogue, discussion and analysis of their local situation. This, among others, helps in addressing issues or needs of disadvantaged groups like women and youth. Promotion of self directed groups and associations may lead to increased demand for extension services in terms of advice, technology and skills. In addition, these institutions may entice people to commit themselves to action, while holding public extension service providers accountable and relevant to their clientele.
- v. *Financial sustainability.* This is the most critical issue as most of the agricultural extension activities are highly dependent on external funding. Thus, there is now a real concern about how the extension services can be made effective and sustainable, and how various actors including beneficiaries themselves, can support the extension services, so that they continue to perform at the expected level in future.

Extension services will become financially sustainable by de-linking public funding from private funding, by piloting, demonstrating and mainstreaming alternative funding mechanisms, and this can be achieved by creating an enabling environment for private providers, while providing a legal framework for public/private partnering. Moreover, the benefits of extension must be clearly demonstrated to decision makers who vote for, and allocate resources

- vi. *Professionalism (providing high quality services to beneficiaries).* In order to nurture the above vision and the rest of the guiding principles, there is a need for having a competent and dynamic extension cadre that will be able to address the changing roles of the extension service by providing appropriate advice and support of different categories of farmers or pastoralists. The changing role of extension service requires extension staff who are capable of empowering farmers/pastoralists through participatory experiential approaches.

- vii. *Promotion of environmentally sound technologies.* Emphasis on participatory approaches aims at development of appropriate or ecologically sound technologies and solutions, which is technologies that are compatible with the socio-economic milieu of the communities, and those that enhance sustainable natural resource management. This includes technologies that:
- Conserve genetic resources, land and water resources
  - Are ecologically sound
  - Technically appropriate
  - Economically viable
  - Socially just
  - Culturally appropriate and
  - Adaptable
- viii. *Adoption of community based approaches.* This refers to approaches that take into consideration the prevailing abilities, resources and the environment of the farming/pastoral communities. Such approaches (e.g. farmer-to-farmer extension) call for active participation of farmers, emphasize group learning, action and reflection.
- ix. *Adoption of gender sensitive approaches.* The term gender describes the socially determined attribute of men and women, including male and female roles. Gender has proven to be an essential variable for analyzing the roles, responsibilities, constraints, opportunities, incentives, costs and benefits in agriculture. Thus gender sensitive approaches should offer tools and strategies to identify the gender specific needs of a defined community and to put them into a format, which can fit into the structure of local institutions and development programmes.
- x. *Effective linkages among farmers, researchers, extensionists, educators, local leadership and other stakeholders.* Linkages are of key importance as they create channels (whether formal or informal) through which products, data, information, knowledge, and wisdom are exchanged between the various partners in the development and utilization process. They also enhance effective communication among actors with possibilities of enhanced feedback mechanisms.

### **Implications of the Stated Vision and Guiding Principles**

The vision and guiding principles should not be looked at as an end in themselves or as a panacea to all constraints facing the extension service in the country. In light of the current decentralization of extension services to the Districts, the success of the extension services will hinge to a large extent, on the effective partnership that can be forged among the Extension Facilitation Unit within the Ministry of Agriculture and Food Security (MAFS) (in collaboration with the Extension Units in the

Ministry of Water and Livestock Development (MWLD)), the national agricultural research system and the Local Government Authorities, in developing and promoting technologies that are ecologically sound and can address the production constraints for different farmer/pastoral circumstances.

Within this partnership, it seems that the Extension Facilitation Unit within MAFS, and through the Zonal Communication Centres, should support local government authorities by, for example:

- Developing, testing (through pilot projects) and disseminating various extension methodologies that prove to be more effective
- Developing various training programmes for extension staff and sponsoring a continuous programme of professional development for extension staff, to promote professionalism in this field.
- Developing monitoring tools and indicators to be used by local government authorities and MAFS for generating the necessary data and information for national policy formulation and analysis.
- Preparing and disseminating to local government authorities information on local, national and international markets for various commodities.
- Offering general advice to local government authorities, on a regular basis, on the general conduct of extension services, including policies, strategies, methodologies, staff development and the like, to assist local government authorities to implement their extension activities in an efficient and effective manner.

At the same time, Local Government Authorities, which are now shouldering the responsibilities for actual delivery of extension services, will need to play a very strong coordinating role, in order to bring on board all the various extension providers, and other stakeholders, so that extension services are provided as part of a comprehensive agricultural development programme for the District. It will be necessary for the District to demonstrate strong leadership in terms of visioning and planning the agricultural development of the District, and developing a strategic framework for extension providers to participate in such a programme.

Moreover, administrators of the extension system will have to raise funds from various sources within and outside the District, to finance agricultural development, including various agricultural extension and farmer training activities. This may be achieved by creating an agricultural development fund from which extension services will be funded. They will also facilitate the emergence of strong cooperative and other forms of farmers' organizations which can enhance access to knowledge, information, inputs, credit and other services.

District Councils should also encourage, through some form of incentives, private providers of extension, inputs, credit and other services. Such providers are likely to

be NGOs or CBOs operating in the District, but could also be commercial profit seeking organizations. There is also need to mobilize political support for agricultural development programmes in the District by developing such programmes in a participatory manner. Meanwhile, general extension work will have to be facilitated in terms of provision of transport, funds and materials to extension staff. In addition, professional upgrading is imperative, so as to improve the competence of staff in working with farmers in a participatory manner.

At the same time, districts should maintain very close contact with the Regional Agricultural and Livestock Advisors and the Zonal Communication Centres in order to obtain technical backstopping on a regular basis, as well as facilitate researchers (through funding) to conduct research on important problems in the District.

It should be noted that the adoption of agricultural technologies will continue to be low unless research scientists pay more attention to the constraints which farmers face in adopting new technologies. Technology development must take into account the realities of the farmers in terms of needs, interests, and potentials and must involve more closely other stakeholders in the agricultural development process. These include farmers themselves, extension providers, other service providers, such as input suppliers and crop buyers. Other stakeholders include local leaders and policy makers.

Such broad based participation will enable districts to come up with research programmes which address real practical constraints to production that farmers face, and ultimately develop technologies which can solve those constraints. Researchers must therefore use more participatory and collaborative approaches in their research, so as to capture the contributions of the different stakeholders. Under the current policy environment and on-going reforms the potential to realize the above vision seems to be great. What is needed is effective commitment by all partners and stakeholders.

### **Strategic Options for Financing and Sustaining Extension**

In this following section some strategic options for financing extension services as envisaged by different stakeholders are presented so that they may be used by various providers and those who are responsible for mobilizing resources. Pluralism is important in funding and delivery of extension, so that there is optimal use of resources as well as division of labour between the public and private sector. This will require an establishment of effective partnerships and coordination between government and other stakeholders.

Empowerment of farmers through organizational development, training and resources should be an important part of any future strategies, which requires corresponding efforts to improve the management capacity in the Ministry of

Agriculture and Food Security to get extension done, by the various providers from both the public and the privates sector. In this respect, the government's commitment is high, as evidenced by, for instance (i) a policy environment that promote profitable, productive and sustainable farming, (ii) a policy environment that allows for private and community – driven extension to operate competitively, and complementary to public extension, (iii) the existence of a national extension strategy and implementation plan, and (iv) adequate operational funds for the remaining, essential public extension services.

In addition, efficiency is expected to improve through contracting out extension service delivery, which is now happening on a small scale. Along with this, plans are underway to privatize selected “private good” extension services, such as soil testing and fertilizer advice, farm improvement plans and many others.

Co-financing of public extension services by farmers and farmers' associations should also reduce pressure on public finances and to improve the accountability and responsiveness of extension to farmers. However, all these providers need to be monitored to ensure that they provide quality services and resources that are mobilized for extension services delivery by public and private providers are actually used for that purpose.

Staff incentives and training should be provided on the basis of skill gap analyses, with a prominent role for farmers in decisions on incentives. Moreover, research, extension and farming communities should be effectively linked to each other, to local communities they serve as well as to wider national and global networks. All these networks need to be supported by cost-effective information and communication technologies. In order to replicate best practices of various providers, the documentation and dissemination of extension success stories should be institutionalized within the operational plans of all providers.

### **Conclusion**

This paper has provided an overview of issues revolving around the delivery of extension services, and the need for agricultural extension reform in Tanzania. Based on views of stakeholders, a vision for extension, including the guiding principles and strategic options were provided. Of utmost importance is the government's commitment in terms of providing a policy environment that allows for private and community driven extension to operate competitively, and complementary to public extension, while ensuring that a national extension strategy and implementation plan are in place and well comprehended by extension staff and other providers of extension services.

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