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Commentary

Forecasting Future Funds for Food Security Projects: A Reflection on Trainings for Frontline Extension Staff on Improved Agricultural Practices in Malawi

Hector M. Malaidza
Malawian Ministry of Agriculture

Robert Strong Jr.
Texas A&M University

Abstract

Eighty percent of the Malawian population depends on agriculture for employment. This commentary is a reflection of a number of training workshops conducted to orient frontline extension staff on improved agricultural technologies. These trainings were conducted by the Technology Transfer Unit (TTU) is under the Department of Agricultural Research Services (DARS) of the Ministry of Agriculture, Malawi. The manuscript contains an analysis across various activities were done before, during, and after a number of technical training sessions. The manuscript presents a detailed picture of processes associated with implementation of the trainings where technical information was shared. The results conceptualize insights of things what was effective, and suggests ways of improving trainings in the future. Therefore, this commentary stresses on the importance of conducting training needs assessments for specific technical groups. The lessons drawn from the analysis are sketched in a general schematic model that can be used for designing, implementing and evaluating future agricultural extension staff trainings to improve food security of Malawians.

Keywords: training, agricultural extension, agricultural technologies, technology transfer

Introduction

Due to recent national elections and referendums in the United States and the United Kingdom, the future of funds allocated to develop nations is in question. Historically, developed nations in the Western world have delineated funds to help less fortunate nations build their capacity to be able to trade and strengthen alliances with the respective developed nations (Huish, 2006). A change in political winds has offered new evaluations and questions about where developed nations spend funds, for what, and to whom. The potential impact of assisting less developed nations expand their capacity offers new markets, political associations, military infrastructures, and educational opportunities to developed countries (Paris, 2006). The effect of funding projects to enhance human capital is difficult to quantify but imperative to support given the need to improve individual's living conditions and decrease opportunities for conflict to arise (Minniti & Naudé, 2010). With the uncertainty of future support provided by the West, developing nations may have to rely more on themselves, Chinese, or Russian aid to combat food insecurity.

Development funds have been designated to supporting extension organizations address food insecurity. Acquiring funds or seeking funding sources for extension programming is not new. Davis (2016) suggested extension systems crusade for increased funding regardless of budgetary environments. Moore and Harder (2015) cited deficient funding as a barrier for extension in Liberia. With decreased budgets for food security projects, there will be reduced funds available to support agricultural extension.

Malawi is a sub-Saharan African nation that attributes over 35% of the GDP to agriculture (United Nations, 2016). The Food and Agriculture Organization (FAO)

of the United Nations (2015) reported that 80% of Malawians depend on agriculture for employment. More than a decade ago, the Department of Agricultural Research Services (DARS) in Malawi conducted trainings to orient frontline extension staff on newly released technologies. A close link exists between DARS and other Departments under the Ministry of Agriculture (MoA) in Malawi. The units include Animal Health and Livestock, (Crop Development, Department of Agricultural Extension Services (DAES), Fisheries, Irrigation and the Land Resource and Conservation.

The major linkage of all the sister Departments of the Malawian MoA is the DAES. From 2000-2010, the level of interaction among the departments was very high. These interactions were channelled through a Technology Transfer Unit (TTU) of DARS. They delivered trainings and developed extension materials in unison. These trainings kept most frontline extension staff up-to-date on recent technologies developed by the National Agriculture Research System. This approach strengthened the flow of up-to-date and quality information among key players in the agricultural innovation system (Meena, 2014).

Over the years, that culture of collaborative efforts has been lost. The trainings are not available, and extension materials are not being developed collectively. This change has resulted in information gaps creating emergencies among senior extension staff, frontline extension personnel, farmers and other stakeholders. This shows that the main pathway (trainings) of communicating agricultural information and improved technologies to extension staff is under-utilized. Owing to the importance of training of agricultural extension staff, this paper analyzes a number of trainings to develop a

framework to guide implementation of trainings in the future.

The importance of capacity building through trainings has been stressed by the Agricultural Sector Wide approach (ASWAp) implementation plan which guides implementation of various promotion activities in the MOA of Malawi. The ASWAp strategy explains that the higher level of agricultural production and productivity can be achieved by improving knowledge and skills of existing technical staff, including frontline extension staff. It further expresses that trainings can either be long-term or short-term programs. This strategy also indicates that trainings should be conducted in response to results from Core Function Analyses (CFAs). These CFAs have been conducted across various departments under the MoA. It further extend discussions to details should be observed before-during-and-after (BDAT) when conducting training workshops. This commentary analyzed a number of trainings implemented by the TTU of DARS. It makes an in-depth assessment of the sessions, as individual sessions or as a set of several sessions.

Purpose and Objectives

The primary objective of the training was to promote drought tolerant maize

varieties and associated practices through workshops and associated print media in Lilongwe Rural, Dedza, Ntcheu, Balaka, Mangochi and Machinga Districts. Four objectives guided the trainings:

1. Orient frontline extension on current technological developments on drought tolerant maize production;
2. Share field experiences on performance of drought tolerant varieties promoted by frontline extension staff;
3. Collectively develop protocols for mounting demonstrations for disseminating drought tolerant varieties and associated practices; and
4. Evaluate training content for further improvement.

The trainings were attended by frontline extension staff from Lilongwe, Dedza, Ntcheu, Balaka, Machinga, Mangochi, Mangochi, Zomba and Chiradzulu districts (see Figure 1). These extension workers were selected based on their capacity to train others. Simply, this was a platform for the training of trainers. A total of three hundred seventy-eight frontline extension staff from nine districts were trained in seven different training sessions. A majority (70%) of the trainees were male; 30% were female.

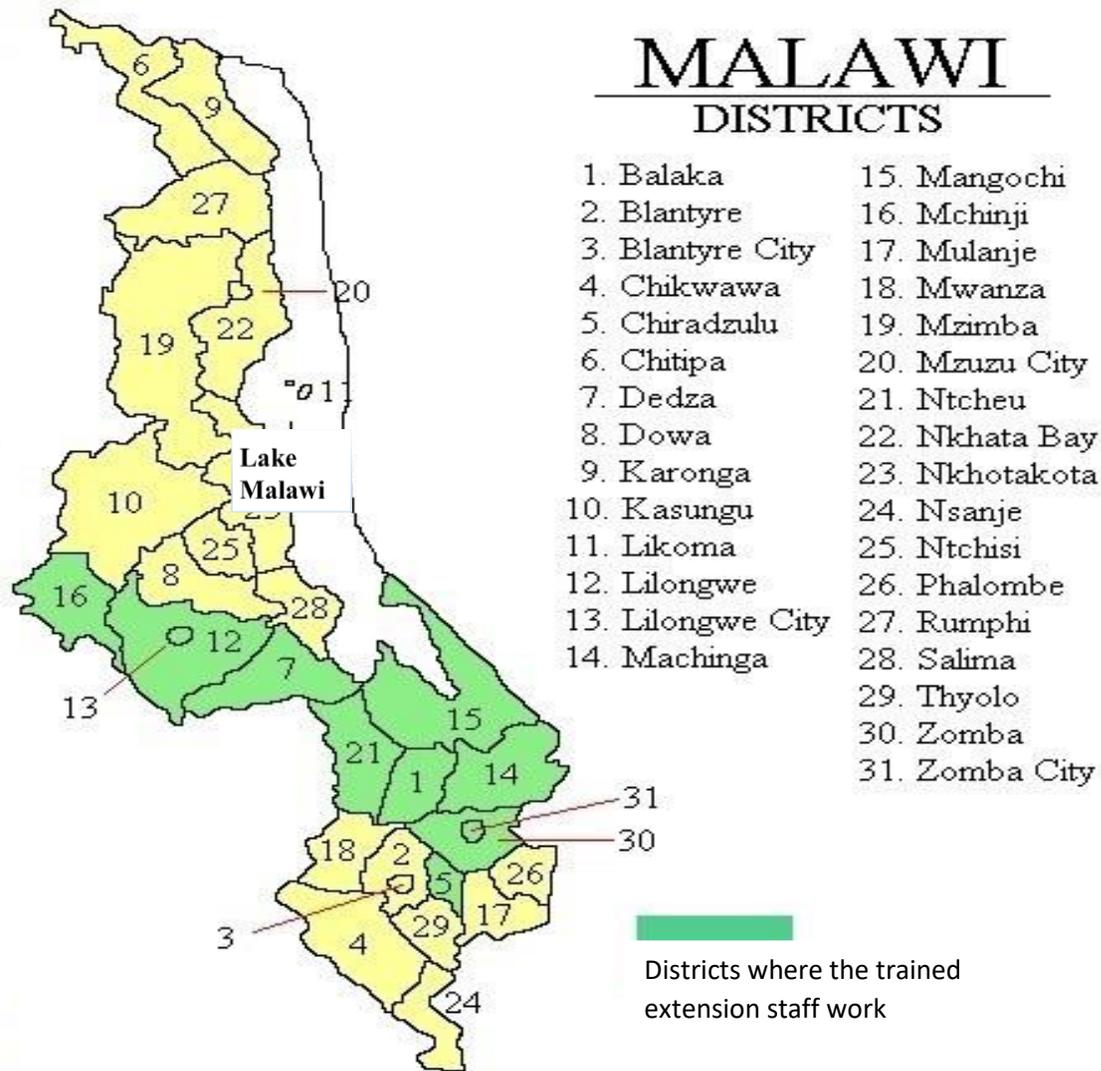


Figure 1. Malawi Extension Districts (MoA, 2015)

The facilitators were encourage to adhere to the content that will help in achieving the goal of the training workshop. If circumstances arose where a facilitator was deviating from the main content, a co-facilitator intervened by raising a hand, making a brief summary, and provided a strategy to progress. This was a technique discussed and agreed during the planning meeting for delivery of the trainings. It was

advised that facilitators were not to argue during the sessions but to purposely construct and deliver the learning content.

Program administrators recorded and documented comments, remarks, suggestions, questions and participants’ answers. Note takers were advised to not concentrate on recording the presentations because PowerPoint files contained the

content from the presenters and were to be shared.

Audio recordings and printed paper cards were used to capture discussions to complement the rapporteurs' notes. Program

administrators used their smartphones or uni/multi-directional audio recorders to capture video clips. The printed paper card (see Figure 2) was issued to the participants for their name and comments or questions.

Name.....	Date:
Title of Presentation:	
Comment/Remark/Suggestion/Questions:.....	
.....	
.....	
.....	
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Figure 1. Printed paper card for trainees' comments

This implies multiple ways of taking notes from the training sessions should be engaged. This helps to have reliable information and feedback for developing reference materials responsive to the participants' needs. It also provided rich information for reporting.

Issues, experiences and feedback on technology performance were captured and to which thoroughly responded. Action plans that rose from the discussions were recorded and the strategy was mapped. In addition, responsibilities for every action point was entrusted to specific individuals.

Several activities were implemented immediately after and sometime after the trainings. These activities included a training review meeting; some follow-up activities (such as mounting of demonstrations); back to office impact; and ongoing communication with the participants.

A review meeting was conducted a day after completing the training workshops. This meeting provided an opportunity to reflect on activities which were well-done and those which needed improvement in the future. It also provided an opportunity to analyze, synthesize, and draw lessons on the data collected from evaluation of the training sessions. Facilitators who attended

the review meetings alluded that all dissemination activities, such as seed fairs, product fairs, field days, and village meetings, should be included for future trainings. They expressed that review meetings can help in improving many extension activities.

The training workshops were resource intensive. They consumed financial, human, and time resources to be effectively implemented. The return on investment in trainings should be evaluated. They should achieve their goals. They should enrich the extension workers' knowledge base and also provide them a platform to express their perceptions of the performance of existing technologies. On the other hand, they help researchers and policy makers capture feedback and adoption status of available agricultural technologies.

Conclusion and Recommendations

Key elements were followed in conducting the training workshops that imparted technical knowledge among frontline agricultural extension staff. Those primary components are outlined in the BDAT training model (see Figure 3). In addition, authors recommend the BDAT

model be used as a checklist for organizing future technical training sessions for frontline agricultural extension staff in Malawi and in other developing nations. The authors also recommend trainers should do further analysis and refine the tool as

necessary. The size and content within the boxes in the model shows that much work conducting such trainings is concentrated at the planning stage versus during or after the program.

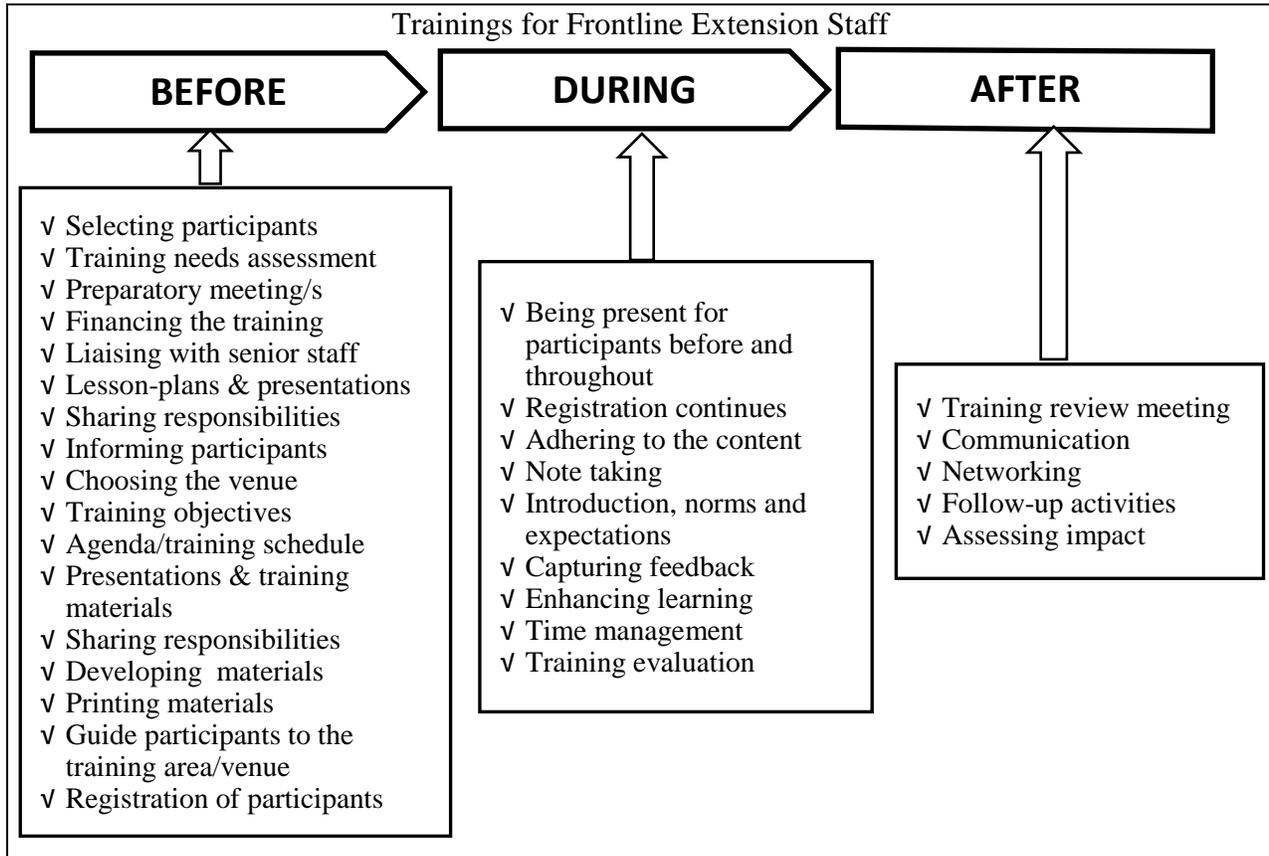


Figure 3. A model for conducting trainings to frontline agricultural extension staff

The trainings discussed in this paper, provided an opportunity for researchers and extension staff to share knowledge and experiences on recent developments in research and performance of existing technologies. These trainings also provided a platform for capturing feedback to research on areas for further research as well as failures and gaps on dissemination of DT maize varieties. They also helped in capturing indigenous ways and means for dealing with issues in maize production as well as feedback on performance of various

technologies developed by the National Agricultural Research System. Trainings of this kind should be conducted frequently to reduce the knowledge gap between agricultural research professionals and frontline extension workers. As a consequence, this will increase the reliability of extension staff and the effectiveness of their delivery of extension-services.

Agricultural extension staff trainings are vital to the agricultural development of Malawi. They equip frontline agricultural extension staff with recent developments on

new agricultural technologies and with appropriate information on existing agricultural innovations. Equipping frontline agricultural extension staff assists the government to have a critical mass of dependable extension staff that can train farmers to work effectively and efficiently. The agricultural extension staff are key professionals in training farmers in providing technical support to NGOs and other stakeholders and in managing many public initiatives in Malawi (Meena, 2014).

The trainings enhance food security at household and at national levels meaning that farmers are able to have enough food for their homes throughout the year. In addition, these farming households have surplus food and cash crops for sale. Proceeds from the sale help them have cash to pay for education, medical bills, transport, and energy, among others. Malawi, as country, is able to have sufficient agricultural products for export earnings to finance its development activities while reducing food imports.

Regardless of future funds developed nations allocate to food security programs, extension systems must continue to document the impact of their trainings and promote agricultural innovations that improve food security. The data will help extension personnel at all levels advocate for increased extension funding (Davis, 2016) by utilizing successful programs that improve the livelihoods of citizens (Minniti & Naudé, 2010). Political cacophony will change but the need to promote the benefits of international agricultural and extension programs to prevent food security issues will endure.

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