

## Whose Job Is It?

# Integrating Agriculture and Nutrition in Public Sector Agricultural Extension Services

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MEAS Technical Note

July 2015

### INTRODUCTION

Nutrition-sensitive agriculture (Box 1) has the attention and is increasingly promoted by national governments and the global development community. This is exemplified in Feed the Future (FTF), the U.S. Government's initiative to sustainably reduce global hunger and poverty. It is embodied in FTF's twin objectives: inclusive agricultural sector growth and improved nutritional status especially of women and children. Nutrition-sensitive agriculture is a means towards achieving these objectives (Ruel, Alderman, & the Maternal Child and Nutrition Study Group, 2013).

Public sector agricultural extension agents are frequently seen as a country's prime resource for delivery of nutrition-sensitive agriculture. They are typically the largest, and most agriculturally experienced, group of workers who directly engage with rural populations: farmers, their families, and others who derive their livelihood from agriculture. The idea to involve them in the delivery of nutrition-sensitive agriculture interventions, utilizing their connections and leveraging their more traditional work in agriculture, is indeed attractive.

**Box 1.** Nutrition-sensitive interventions address the underlying and systemic causes of malnutrition whereas nutrition-specific interventions address the immediate determinants of malnutrition (USAID, 2014, p.5). Pathways through which nutrition-sensitive agricultural interventions may contribute to nutritional and food security include investments to increase food production (for consumption and diversification), to increase agricultural income, and to strengthen women's empowerment (adapted from Herforth & Harris, 2014; Ruel et al., 2013; and USAID, 2014).

A recent assessment of extension and nutrition services in Malawi investigates how this idea is being operationalized in Malawi and its FTF focus districts/Zone of Influence (Sigman, Rhoe, Peters, Banda, & Malindi, 2014). The assessment—based on interviews with those in the public, private, and civil society sectors and a review of related literature—pinpoints key issues to be considered in the development and implementation of integrated agriculture and

nutrition services in a coordinated and collaborative manner.

This brief focuses on a component of the assessment: Malawi's public extension system in the Ministry of Agriculture and Food Security (MoAFS<sup>1</sup>), Department of Agricultural Extension Services (DAES), and identifies and discusses these key issues within the DAES context.

## CONTEXT

Over half of Malawi's population lives under the poverty line; around 85% of its population derives its livelihood from agriculture; and the alarming fact is that 47% of its children under five are stunted (USAID/Malawi, 2013). The agriculture sector—a rain-fed sector dominated by smallholders growing maize—is characterized by low productivity, limited value addition, and erosion of agricultural services, particularly agricultural extension services. Nonetheless, the Government of Malawi (GoM) recognizes agriculture as the driver of, and food security as a pre-requisite for, economic growth and wealth creation (GoM/MoAFS, 2011). This recognition is formalized in two critical instruments: the *Malawi Agricultural Sector Wide Approach* (ASWAp) (GoM/MoAFS, 2011) and the *National Nutrition Education and Communication Strategy (NECS)* (GoM/DNHA/SUN, 2011). ASWAp is Malawi's agricultural investment plan, articulated as part of the Comprehensive African Agriculture Development Plan process. NECS details Malawi's action and commitment to the global Scaling Up Nutrition, SUN, movement<sup>2</sup>. These instruments promote cross-sectoral linkages in order to harness all available resources to meet nutrition challenges. They underpin efforts to integrate nutrition in agricultural extension programming.

Among its focus areas and key support services, the ASWAp emphasizes Food Security, Technology Generation and Dissemination, and Institutional Strengthening and Capacity Building. It is designed to address factors associated with food and nutrition insecurity identified as:

Low agricultural productivity; low food intake due to lack of effective opportunity to produce or purchase nutritious foods; poor food utilization due to knowledge/skill inadequacies related to food choices, dietary diversification, and child feeding practices; poor nutrition education which currently targets women rather than both men and women; inadequate knowledge/skills/technologies around food preparation, processing, and preservation; and weak capacity of institutions to implement nutrition programs (GoM/MoAFS, 2011, p.12).

The NECS represents the operationalization of SUN in Malawi. SUN, focusing on the first 1000 days, aims to reduce child stunting. Its coordination is housed at the highest national level in the Office of the President and Cabinet in the Department of Nutrition, HIV and AIDS (DNHA). DNHA has overall responsibility for all nutrition-related work (as well as for HIV and AIDS). Through technical working groups, task forces, alliances, and a complex set of linkages from the household, village, community, district to national-level, DNHA via SUN engages a wide-range of civil society, private, and public sector actors including seven line ministries, of which agriculture and health are two, in a multi-sectoral approach to improving nutrition outcomes. SUN augments capacity building of multi-sectoral frontline workers such as agriculture and health extension workers.

<sup>1</sup> Recently changed to the Ministry of Agriculture, Irrigation, and Water Development.

<sup>2</sup> See <http://scalingupnutrition.org>

Malawi has a pluralistic extension and advisory system. The system is comprised of the public extension service, housed in DAES and by far the largest provider of services; numerous local and international NGOs; and to a lesser extent private sector entities. DAES spearheads the initiative to develop a demand-driven, decentralized, participatory, and pluralistic extension system. The initiative promotes a framework for organizing farmer demand and service provider response as well as for coordinating related activities of all stakeholders. It is meant to be used by all stakeholders in the extension and advisory service sub-sector.

## ISSUES

The assessment examined numerous aspects of agriculture-nutrition integration. Because there is an indisputable link between agriculture and nutrition, it is natural to think the two are readily integrated. Not so, as the key issues in integrating the two are complex and interrelated. Though issues identified in this brief emerge from the Malawi case and focus on public sector extension, many other issues are relevant and apply to the wider arena of nutrition-sensitive agricultural, including other country systems and service providers in the civil society and private sectors.

## Conditions of Service

Existing conditions of service for public agricultural extension workers in Malawi ruthlessly limit their job performance. Although not unique to Malawi, these are commonly

known pervasive conditions. They must be acknowledged and mitigated to facilitate public extension's involvement in nutrition-sensitive agriculture. Lack of operational funding and communication tools, limited means of or access to transport, narrow opportunities for professional development and career advancement, and generally low wages already stifle extension staff capacity to carry out their work. Adding what may be perceived as increased nutrition-related responsibilities, without addressing conditions of service, deepens the strain and is unlikely to be eagerly met with enthusiasm.

## Coverage

A prime reason for integrating nutrition in extension programming is to reach and improve nutritional outcomes of the population with whom extension agents work. In Malawi, many extension posts are vacant (typically greater than 50% vacancy rate) due to various reasons, primarily budgetary. In the 1990's, a cadre of Farm Home Assistants complemented the work of agricultural extension agents. This group is no longer part of the extension structure, although there is some discussion to re-instate these positions. Thus, at field level, the ratio of agents to farmers is 1:3000 and higher. Actions to address this unrealistic expectation include training volunteer lead farmers (in nutrition-sensitive agriculture) and volunteer nutrition promoters who further engage their neighborhood farmers and families individually and in groups<sup>3</sup>, applying mass media and ICT solutions, and very practically, providing front-

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<sup>3</sup> Interviews suggest public sector extensionists are working more with individuals (typically lead farmers) than with farmer groups, although some lead farmers work with informally organized groups. Reasons given for doing so include the historical problems associated with organized farmer groups, particularly the collapse of groups organized for

credit purposes. NGOs are reportedly emphasizing group approaches and there are several large-scale associated farmer-based organizations. To an extent, public extensionists work with the latter. Associations are also reportedly hiring their own extension staff and/or are supported by NGOs.

line agents with bicycles<sup>4</sup> (Sigman et al., 2014). To improve nutritional outcomes on a large-scale requires improving extension to farmer coverage, or, alternatively, moderating outcomes and coverage expectations, or both.

### Capacity

Field-level workers are generalists who are relied upon for work across multiple subjects including crops, livestock, HIV and AIDS, and nutrition. All work is to be carried-out with a gender-sensitive lens. Lead-farmer development; food production, processing and preservation, as well as marketing are all under their purview. It is widely acknowledged that their capacity in a number of these areas is weak. SUN is rolling out training focusing on the first 1,000 Days for extension supervisors and the extension department itself (DAES) has some nutritionists who provide nutrition-related training to extension supervisors. However, training reportedly is not trickling down to field-level staff and there is limited training specifically targeting nutrition-sensitive agriculture. Learning aids such as manuals and guidelines to support work at the field level are notably scarce. Building capacity is seldom a short-term process. Further consideration and action is needed to strengthen capacity building efforts, not only in nutrition-sensitive agriculture but also in other subjects and processes.

### Incentives

While the literature on nutrition-sensitive agriculture has grown considerably, limited attention has been given to determining ways to incentivize agricultural workers to become more fully involved in nutrition-sensitive agriculture, not to mention means to incentivize agriculture and health workers to engage with each other (Haddad, 2012). Common knowledge asserts

that lack of transportation and competing demands on extension agents' time are disincentives to involvement and engagement in nutrition-sensitive agriculture. However, the evidence base identifying disincentives as well as effective incentives is remarkably lacking.

In Malawi, better conditions of service and further training are put forth as desired incentives. It is highly likely additional deeper incentives are also needed. This is not a new dilemma for Malawi (and elsewhere), yet innovative approaches to develop and deliver sustainable incentives that result in desired behaviors must be found. Among the possibilities are introducing performance-based management systems, utilizing theories of job satisfaction and employee motivation to frame studies to identify feasible incentives, and experimenting with competitive small grants programs. Modifying Haddad's (2011) suggestion could prove useful: conduct an incentives-focused study asking agricultural extension and nutrition staff to identify and prioritize incentives they think would be most effective and why.

The complexity of incentive-related issues is compounded by the prevailing practices of NGOs. Due to staff limitations, various NGOs in Malawi engage government extension field staff to work directly with farmers and other target groups to implement NGO-financed projects and/or NGO field staff work hand-in-hand with government field staff to deliver services. On the one hand, these practices increase the reach of extension and provide much needed services to farmers who may not otherwise be served. On the other hand, different NGOs provide different types of incentives and support to different public sector extension workers. This has the unintended consequence of creating wide

prefer motorcycles, which also have issues, most agree bicycles are better than walking.

<sup>4</sup> Provision of bicycles brings forth additional issues such as maintenance allowance, distances to be traveled, etc. While extension agents generally

disparities for extensionists in terms of their working conditions and performance incentives. High-level deliberation by government and the NGO community to develop reasonable standards and protocols is required to address this sensitive and distortionary situation.

### Messages

Currently, the messages delivered by agricultural extension staff in Malawi are driven by the SUN framework, which focuses on the first 1000 days (GoM/DNHA/SUN, 2011). Training and materials are being made available, although availability is constrained as mentioned above. Diversification of food production and diets is a primary message. Tips on food processing and storage are also on the agenda. Exclusive breastfeeding is promoted and messages around other feeding and care practices are included. Extension agents, primarily male as there are few female agents, are involved in cooking demonstrations. These messages and their related-activities give rise to the following issues:

- Diversification is particularly challenging in Malawi. A long-standing tradition of growing maize makes it difficult to expand production of nutrient-dense crops such as vegetables, fruits, and legumes. Not only are many of these crops more difficult to produce than maize (they require good seed, water, production, processing, and storage knowledge), but also most farmers perceive maize as the best way to ensure food will be available for the family throughout the year. Although the GoM includes legume seeds in its dominant program designed to increase maize production, the Farm Input Subsidy Program, diversity of production and consumption is limited. Additional strategies to tackle diversification might include identification of the best bet fruits and vegetables for production and consumption (which may include native fruits and vegetables), further training of farmers by extension in diversification, input support for families, and community

demonstrations of vegetable and fruit production, processing, storage, and preservation. Understanding the benefits of dietary diversification alone may not be sufficiently convincing to change behavior. Farm families will also want evidence of how diversification of production affects risk, labor requirements, and household income.

- Male agents are reportedly not uncomfortable conducting cooking demonstrations. They are far less comfortable discussing exclusive breastfeeding. A question is: what messages and materials are best for agricultural workers to deliver? Contextual analysis, with input from those who will deliver messages and materials, is needed.
- Conceptual tools are available such as the *Pathways between Agriculture and Nutrition*, which describe paths through which agriculture can contribute to reductions in undernutrition (Herforth & Harris, 2014). The primary pathways are via food production, agricultural income, and women's empowerment. Applying an analysis of the pathways between agriculture and nutrition within the Malawian context can inform decisions regarding best-fit messages and materials.
- Women tend to spend income they control on food and healthcare for the family (UNICEF, 2011). Empowering women by increasing women's agricultural productivity, processing, and marketing skills and their agricultural income are paths toward improving their and their families' nutritional status. While not conclusive, results of some case studies indicate that Malawian women farmers prefer to work with female extension workers, as this facilitates women's open discussion of messages and other issues and considers cultural norms that, in many places, limit women's direct engagement with male extension workers (Jafry, Moyo, & Mandaloma, 2014). Malawi recognizes the

need to increase women's participation in agricultural extension—both in delivering and receiving extension services. However, given difficulties recruiting women a specific concerted effort to do so is needed (Manfre et al., 2013).

### Coordination

There are numerous dedicated players from public, civil society, and the private sector working to improve nutrition outcomes in Malawi. Coordination, to bring the comparative advantages of all players together to tackle undernutrition, is a paramount challenge. The challenge is evident both within the government sector and across sectors where civil society and the private sector engage in nutrition-sensitive agricultural interventions either using public sector employees or working hand-in-hand with public sector employees.

The complications of coordination increase as the numbers of actors increases. Even though there are numerous planned coordinating structures, remarkably few are functioning effectively. This is compounded by the fact that each of the involved ministries, as well as DNHA, and SUN, has its own unique set of committees and committee structures, several of which are tasked with nutrition-related responsibilities. Coordination is reportedly strongest at the national level and weakest at the field level, although some NGOs reportedly coordinate with government agents. NGOs typically have resources to support coordination meetings and subsequent activities. Of the seven line ministries collaborating within the SUN framework, the MoAFS; Ministry of Health; and Ministry of Gender, Children, and Social Welfare have staff at the field level (village level). These staff often operate in the same villages but with little or no coordination between units. Their reported willingness to harmonize their work is constrained by ineffective or non-existent planning and coordination mechanisms. Or,

lacking resources, they are not in position to participate in and help improve these mechanisms. Establishing a coordination fund to support field level coordination would help field level staff. Streamlining, and perhaps realigning, the various coordinating structures at the various levels among the various players could prove beneficial.

### Investments

Each of the above issues has financial implications. The cost-benefit of adequately addressing these issues has yet to be determined. Implementing cost-benefit analysis offers an important funding opportunity for the donor community. Such analysis is vital to rationally guide much needed agricultural extension investments.

The assessment confirms findings of a 2012 extension system study, which specifies DAES is underfunded and consequently understaffed (Simpson, Heinrich, & Malindi, 2012). While specific DAES budget figures are unavailable, available evidence indicates the Department receives about 3% of MoAFS recurrent budget and the Malawi Farm Input Subsidy Programme FISP receives around 80% (CISANET, 2014). The FISP allocation reportedly results in cuts in other MoAFS budget areas such as extension, livestock, and crop production management, though others have questioned this result (Mazunda, 2013). It is indeed difficult to envisage a successfully operating public sector extension system without further investments in the system. While a more efficient use of resources may be possible, the more apparent choices are to decrease the scope of extension activity or increase resources. Additional and significant investment is needed to boost and back up extension and its engagement in nutrition-sensitive agriculture. The main financial contributor to government extension services is the GoM. Several other donors have contributed directly to strengthening GoM

extension but the trend has been such that most bi- and multilateral donors contribute to private sector and NGO-based extension and advisory services. Given existing and emerging expectations for public sector extension engagement in nutrition-sensitive agriculture, this trend warrants a careful fresh look.

## CONCLUSION

The title of this brief is: “Whose Job Is It? Integrating Agriculture and Nutrition in Public

Sector Agricultural Extension Services.” A compelling response to this question from the standpoint of public sector agricultural extension is: while it is part of the job of the public sector, it is also part of the job of the global development community to facilitate public sector agricultural extension services in their quest to create environments and conditions conducive to successfully achieving this integration.

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