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NOTE 9: Integrating Nutrition into Rural Advisory Services and Extension

Compiled by: Jessica Fanzo, July 2015

There is plenty of information available in the public domain that covers various aspects of extension and know-how about new methodologies for implementation. However this information is often scattered and presented in complex academic language. Hence practitioners, who often have very limited time and/or may only have basic formal education, find it difficult to make use of this information.

The Global Good Practices Initiative aims to bridge this gap by providing information about extension approaches and methods in easy-to-understand formats. As part of this effort, it makes "Good Practice Notes" available to all on a downloadable website. This Note contains one of the extension methods included in this series.

Introduction

There is a heightened awareness globally and within development institutions and governments of the need to better understand the links between agriculture and nutrition, and to decipher the ways in which the agriculture sector can contribute to improved nutrition. The 'what' and the 'how' of effectively delivering 'nutrition-sensitive agriculture'[1] services to rural households remain even less understood.

Extension workers (through public, private, and non-government organisation (NGO) channels) are often thought of as a promising platform or vehicle for the delivery of nutrition knowledge and practices to improve the nutritional health of rural communities because they reach and interact closely with farmers in different settings. They act as significant service providers of crop, livestock, and forestry aspects of food security, consumption, and production.

Nutrition concepts were first introduced into the training of extension personnel for rural development projects in the 1960s. During those early stages, the general consensus was that to have an impact on nutrition, the agriculture sector would need to expand beyond its sole focus on food production, and incorporate food consumption as well. For this to succeed, a key step was to improve extension agents' understanding of nutrition-related concepts, as the prevailing low levels of training did not equip them with the tools necessary to recognise the causes and consequences of malnutrition.

This new approach served as a global resource and was later adapted to the national contexts of numerous countries throughout Latin America and Africa. After the 1980s, globalisation altered agricultural policies significantly and resulted in market-oriented agricultural sectors that preferred food producers selling their output in the marketplace, thereby placing less emphasis on improving home consumption. Additionally, by the late 1990s, extension advisory services (EAS) across the developing world were deprived of funding as a result of changes in donor and lending policies, as well as due to the costs of the model. Both of these factors may have influenced the limited success of these early efforts to integrate nutrition and EAS.

Philosophy

There are numerous good arguments for why it should be effective to integrate nutrition into EAS including:

- Established infrastructure. In some countries, the EAS delivery system is already in place and it is just a matter

[1] Nutrition-specific interventions address the immediate causes of undernutrition, like inadequate dietary intake and some of the underlying causes like feeding practices and access to food. Nutrition-sensitive interventions can address some of the underlying and basic causes of malnutrition by incorporating nutrition goals and actions from a wide range of sectors. They can also serve as delivery platforms for nutrition-specific interventions.

of 'topping-up' their portfolio with simple nutrition activities and messages.

- Reach. Existing networks of extension agents already reach many people, and thus there is no need to tap into or seek new clientele. Extension agents have direct and sometimes extensive links to farming communities in rural and remote areas. These links are founded upon well-established structures and systems that cover most farming households.
- Community trust. Extension agents maintain regular contact and have established relationships with the people and the communities in which they work. It is much easier to introduce nutrition issues into communities with preexisting relationships built on trust.
- Cultural awareness. Extension agents are often aware of the local social norms, cultures, and belief systems that accompany and contextualise food. Agents frequently hail from the region where they work and therefore have intimate knowledge and understanding of the local context.
- Empathy and understanding. Because of their familiarity with the conditions and context under which the farmers work and associated limitations and opportunities, extension agents are more able to demonstrate empathy with the farmers. This is particularly true with regard to questions of food production and access. Equipped with knowledge of the local food production system, access to markets, and the nutrition status of households, extension agents have a clearer understanding of how to mitigate the constraints faced by farmers.
- More knowledge. We now know more on what to do and the eight principles[2] for integrating nutrition into agriculture and rural development serve as a guide for ensuring EAS have a strong footing in the integration of nutrition into their own services. Beyond just producing or having access to nutritious foods, we also know there are three main pathways that potentially improve nutrition: agricultural production, agriculture-derived income, and women's empowerment.

Strategies

Food-based approaches would provide the best use of the skill sets of extension agents. These approaches can focus on:

- Nutrition-rich crops and their cultivation at the farm level.
- Linking farmers to markets and value chains to sell and buy nutritious foods at the farm gate level.
- Better use of foods grown and purchased at the household level through preservation, cooking, storing, and processing.
- Nutrition messaging and education geared towards behaviour change at the individual level. One source of this could be the essential nutrition actions,[3] which provide core messages that can be adapted.
- Improving food safety at the farm gate level by reducing aflatoxin during post-harvest storage and minimising environmental enteropathy[4] by pairing work with other interventions such as Water, Sanitation, and Hygiene (WASH).

Non-food based approaches can also impact nutrition. Approaches such as:

- Providing women with the tools and technology to improve their own livelihoods and reduce their work and time burden, thus addressing women's empowerment.
- Generating income through raising livestock. Improved husbandry practices very likely will reduce incidence of environmental enteropathy.
- Adopting good agricultural practice (including safe use of chemicals) can have an impact on nutrition and health without even explicitly mentioning nutrition.

There are several delivery channels that EAS could use to deliver better nutrition. These include:

- On-farm demonstrations
- Farmer field schools and associations
- Public health and school platforms
- Water and sanitation programmes.

Adoption of more nutrition-sensitive agriculture takes more than just providing tools, technologies, and messages. If we want to see behaviour change, it is important for EAS to understand farmers' decision-making processes and how these impact livelihoods, incomes, and nutrition outcomes. This would include increasing awareness and interest, decision and uptake, evaluation, adaptation, and finally, adoption.

Capacities required

The types of service providers working in nutrition extend beyond traditional frontline agricultural extension agents. As EAS have become more pluralistic, the actors providing services have become more diversified. There is also a tension with other rural workers, such as community health workers. Often, nutrition is thought to rest in their responsibilities. However, often they too are over worked, undercompensated, and have many tasks in the primary health care package.

The capacities that extension agents need to effectively integrate nutrition into EAS include:

- Technical knowledge of nutrition: Crop production for improving nutrition, in addition to training on diets, food preparation, preservation, and hygiene. Training of extension agents should include emphasis on creating awareness of the potential causes of malnutrition that apply to them as fieldworkers (since extension agents often perceive information about nutrition to be less important than other technical information) as well as messages that are applicable to farmers.

[2] See: http://www.fao.org/fileadmin/user_upload/wa_workshop/docs/Synthesis_of_Ag-Nutr_Guidance_FAO_IssuePaper_Draft.pdf

[3] While most nutrition interventions are delivered through the health sector, non-health interventions can also be critical. Actions should target the different causes to reach sustainable change, which requires a multisectoral approach. The essential nutrition actions (ENA) are a package of interventions that could reduce infant and child mortality, improve physical and mental growth and development, and improve productivity. http://www.who.int/nutrition/publications/infantfeeding/essential_nutrition_actions/en/

[4] Environmental enteropathy, also known as tropical enteropathy, is a condition (subclinical disorder) believed to be due to frequent intestinal infections. There are often minimal acute symptoms. There may be chronic problems with absorbing nutrients, which may result in malnutrition and growth stunting in children.

- Communication, facilitation, and management skills: It is necessary to introduce soft skills to agents, such as facilitation, negotiation, communication, and gender sensitivity. Farmers will need to be convinced to invest in nutrition for their own families and for the market. Creating demand amongst farmers will take time.
- Minimising harm: Extension service providers need to be sensitised to the fact that the promotion of certain practices, technologies, and income generation strategies can have adverse effects on diversity of production, home consumption vs. selling, and increased labour, time, and energy demands (especially for women), making nutrition improvements more difficult. Extension agents need to not only be sensitive to unintended harmful consequences but should facilitate a discussion on these potential trade-offs among the clients they work with. This would also include understanding how power dynamics in households and communities can influence outcomes.

Training also encompasses support systems for extension agents including mentorship, feedback, and career advancement. If a country does not have a support system for EAS in place, the probability of younger generations entering the education system, or doing vocational training with a focus on EAS, remains low. Training should include pre-service and in-service training on nutrition sensitive agriculture and be ongoing, reinforced, and mentored, in order for the addition of nutrition as a topic to be sustainable. This requires the public sector to take ownership and responsibility, and requires building the capacity of trainers and mentors in the field of nutrition. Training on nutrition-related agronomy can be done in the field by using field plots, greenhouses, and local biodiversity and ecosystems.

Costs

Determining the costs of integrating nutrition into EAS is hampered by a lack of conclusive information about the efficiency and cost-effectiveness of integrated agriculture–nutrition interventions. There is some variation in viewpoints regarding the bundle of additional resources required. There is general recognition that integrating nutrition into EAS would incur additional costs, and there is some convergence on what the main drivers of the cost increases would be. These include nutrition training for extension agents, additional skills training for extension agents, cost of demonstrations and logistics, and use of technology.

Interest in integrating nutrition into EAS stems, at least partially, from the perception that it could be an efficient, effective use of existing resources, as extension agents are already embedded within the communities. However, it is important to keep in mind that incorporating nutrition into EAS activities will require additional resources, and that these systems are generally under-funded.

Best-fit considerations

- Biofortification (of tested and approved crops) serves as an accessible entry point and opportunity for the integration of nutrition into EAS. With biofortification, extension agents are dealing with staple crops that provide nutritional value. Farmers are demanding more technology and improved cultivation training, both of which can be introduced by extension agents through biofortification.
- The use of information and communication technologies (ICTs) to backstop and support providers of EAS is gaining in popularity, particularly among NGOs experimenting with innovative ways to deliver messages. Mobile platforms, using SMS, apps, and voice messages, have been in use for some years. Digital Green is an example of an organisation that is starting to explore the use of ICTs to deliver nutrition messages through extension agents. Radio can play a vital role in strengthening and complementing EAS nutrition messages.
- The Farmer Field School model and farmer associations can be considered an opportunity for EAS and nutrition and allow for effective delivery of nutrition-sensitive agriculture without the hindrance of some of the transport and training challenges faced by extension agents.

Strengths and weaknesses

Strengths

- Many extension agents have substantial reach into the communities in which they operate, and trust and rapport with community members. Harnessing this social capital is considered to be effective in improving nutrition.
- Improving yield and incomes are major goals for farmers. Integrating communication about nutrition and dietary-related behaviour change into the portfolio of activities of extension agents may create the conditions for improved nutrition to be adopted and demanded within farmer families.
- Extension agents focus on local food production systems. Through knowledge and adoption of new practices that integrate nutrition within local cropping, livestock, and food safety technologies and innovations, extension agents can better address the causal factors impacting the communities in which they work.
- Use of other delivery platforms, such as WASH, could link agriculture with the health and water sectors in meaningful ways to impact nutrition.

Weaknesses

- The agriculture and nutrition sectors speak different 'languages'. Coming from different disciplines, agriculturalists and nutritionists adopt different language, priorities, and terms, which constrains integration. This is often apparent among different rural workers.
- There is limited understanding of nutrition within EAS. There is an underlying ignorance regarding the basics of nutrition.
- Those working in nutrition contend there needs to be a discussion across sectors to clarify the role of each sector in addressing nutrition, and to decide how to mobilise resources and create a budget for nutrition interventions for EAS specifically.
- There is a lack of joint planning and dialogue at all levels. Coordination of planning and dialogue among the

relevant agriculture, nutrition, and health actors does not happen. It is important to identify and leverage existing mechanisms and avenues for collaboration.

Policy-making and enabling environment

Securing and maintaining high-level political support for both nutrition and EAS is key to ensuring the inter-ministerial coordination and resource allocation necessary for EAS to play a meaningful role in contributing to nutritional outcomes.

National multi-sectoral nutrition policies and strategies could provide a starting point for the integration of EAS delivery systems and nutrition activities. However, there needs to be an alignment with agricultural policies and priorities as well. Multi-sectoral coordination, particularly between the agriculture and health sectors, lies at the heart of integrating nutrition into EAS. While there are successful examples of coordination at the grassroots and district levels, stakeholders noted the need for higher-level support and engagement to replicate and scale successes.

Evidence of impact and potential scalability

With the increased attention on, and investment in, nutrition-sensitive agriculture, EAS should be considered as an important potential contributor to delivering effective nutrition to rural farming communities. EAS could be a promising vehicle for delivering nutrition interventions through agriculture. The extent to which it is effective to rely on EAS to deliver nutrition interventions is uncertain. Much more understanding is needed of what approaches have the most significant impact on nutrition outcomes. Without that understanding, and research to assess impact, it is difficult to understand the effectiveness of integration of nutrition into extension.

Beyond gaining evidence of what approaches are most appropriate, there also needs to be significant investment and ramping up of EAS in general. If EAS are unable to provide the most basic agriculture services, it will be much more difficult to layer nutrition interventions, messages, and activities within their portfolio. EAS systems need support – financial, training, human resources, and infrastructure – to ensure that the services that are provided are robust.

Training materials

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Further reading

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