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Dexter Hati/World Vision Zimbabwe

Operational factors in the integration of nutrition into agriculture and livelihoods programmes in Zimbabwe

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Location: *Zimbabwe*

What we know: Nutrition-sensitive agriculture has emerged as a new approach with guiding principles on programme design; however, little guidance currently exists on the operationalisation of such programmes.

What this article adds: A case study by consultants working for World Vision UK was undertaken as a learning exercise for World Vision, partners and a wider audience of practitioners, researchers and decision-makers. It shows that there are many opportunities and challenges to design, implement and assess multi-sector programmes for nutrition. Establishing clear objectives, a theory of change and a monitoring framework involving not only programme stakeholders but communities, government and the private sector are important. Multi-sector programmes are challenging due to their traditionally separate sectors. A good approach is to coordinate at all levels, understand the context, assess assumptions, agree objectives, be participative, harmonise training materials and give attention to any unintended consequences. A fully mainstreamed gender component is essential to optimise the pathways from agriculture to nutrition. Targeting farmers with the greatest capacity for increasing agricultural productivity could exclude the poorest and most vulnerable, making nutrition objectives elusive. A practical guide to implement and assess multi-sector programmes for nutrition under the real constraints experienced by the implementers is needed and further case studies would help achieve this.

Introduction

While the current guidance on nutrition-sensitive programming is useful for design and evaluation (FAO, 2013; SPRING, 2014), the implementation of multi-sector programmes has not been so well described. This research seeks to understand more fully issues related to the implementation of nutrition-sensitive agriculture and livelihoods programmes using a case study of the Ensuring Nutrition, Transforming and Empowering Rural Farmers and Promoting Resilience in Zimbabwe (ENTERPRIZE) project. The conceptual pathways between agriculture and nutrition (SPRING, 2014) and guiding principles for the design of agriculture programmes for nutrition (FAO, 2013) were used in the design of the ENTERPRIZE programme.

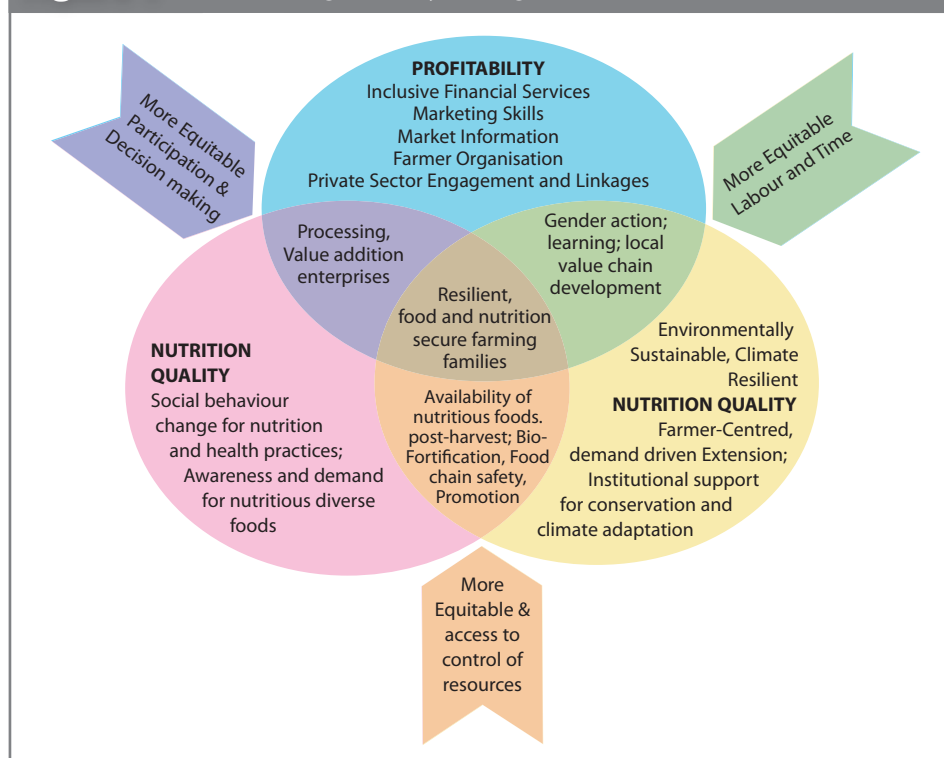
ENTERPRIZE is a multi-sector project in Mashonaland Central Province in Zimbabwe led by World Vision Zimbabwe (WVZ). It is one of three sub-projects of the Agricultural Productivity and Nutrition (APN) component managed by the Food and Agriculture Organization of the United Nations (FAO). The APN is one of three components of the Livelihoods and Food Security Programme (LFSP) funded by the UK Department for International Development (DFID). It also includes the market development (MD) component led by Palladium (an international advisory and management company) and the monitoring, reporting and evaluation (MR&E) component

led by Coffey (who provide international development assistance services).

ENTERPRIZE aims to benefit 25,500 farmers directly and 75,650 households indirectly by improving food and nutrition security through coordinated activities primarily across agriculture, finance and health sectors. It is a complex project with links across many sectors and partnerships covering government, non-governmental organisations (NGOs), financial institutions and the private sector. Figure 1 shows the original theory of change (ToC) for ENTERPRIZE. The total budget for the project to date is US\$5.3 million over the 40-month course of the project.

Nutrition in ENTERPRIZE includes 'nutrition-specific' and 'nutrition-sensitive' actions. Nutrition-specific activities include behaviour change communication (BCC), such as the promotion of infant and young child feeding (IYCF); improved hygiene; health-seeking behaviours and cooking demonstrations. Nutrition-sensitive activities include value chains of nutrient-dense foods; a gender empowerment strategy; support for diversified crop production; promotion of biofortified crops; farmer trainings; and promotion of post-harvest management, processing and preservation methods. The

¹ DFNSC multi-sector committee is designed to coordinate government nutrition activities at district level. It includes agriculture, livestock, health, environmental health, youth affairs, community development and social services.

Figure 1 ENTERPRIZE original theory of change (ToC)

project supports the District Food and Nutrition Security Committee¹ (DFNSC) and ward-level committees. Targeting varied for different components. Nutrition-specific actions were targeted for the first 1,000 days (pregnant and lactating women (PLW)) via care groups, irrespective of socio-economic classification. Nutrition-sensitive actions targeted middle-income farmers using Farmer Groups, in line with LFSP targeting guidelines.

An ENTERPRIZE-specific log frame was developed from the broader APN LFSP log frame. The following nutrition-relevant indicators were included: prevalence of households with moderate or severe hunger (based on the household hunger scale (HHS)); household dietary diversity (based on the household food consumption score (HFCS) and minimum acceptable diet (MAD)); proportion of households purchasing nutritious foods (including biofortified products); proportion of households producing diverse nutritious foods (including biofortified crops); and proportion of households practicing positive nutrition behaviours

Box 1 Gender Action Learning System (GALS)

GALS is a participatory facilitation process led by trained local facilitators and replicated through community-based, trained 'champions'. It comprises a series of tools that enable household members to negotiate their needs and interests and find innovative, gender-equitable solutions. GALS begins with dialogue at farming-family level on resource and labour planning, family visioning, identification of preferred value chains, mapping the market, and analysis of key production and marketing constraints and opportunities.

(including diversified consumption, exclusive breastfeeding and improved water, sanitation and hygiene (WASH)). Measures of nutritional status (wasting and stunting) were not included.

Methods

The case study seeks to address the gap in evidence on operational factors in the implementation of nutrition-sensitive agriculture and livelihoods programmes. The case study was carried out from October 2016 to January 2017, in the second year of the project. Interview questions were designed to address the focal question:

"In seeking to make agriculture and livelihood programmes nutrition-sensitive, what are the operational opportunities and challenges that programmes face? What lessons can be drawn from practical experience?"

A literature review was conducted on multi-sector programming for nutrition to draw lessons from previous experiences. Key factors identified relating to the success of programmes were: adoption of a shared vocabulary and agenda; design and plan for deep engagement with communities and governments; a portfolio approach for nutrition to maximise nutritional outcomes; clear guidance from the design stage for holding actors accountable for planned coordination and collaboration efforts; a system of robust technical assistance to ensure quality implementation; and establishment of a stronger environment for collaboration, learning and adaptation (various sources, including SPRING and Feed the Future 2016). These factors were used as a basis for the assessment of ENTERPRIZE.

Interviews were conducted in Harare with WVZ, ENTERPRIZE and APN national partners. This was followed by visits to Gurube and Mount

Darwin Districts, for three days each, where 16 group discussions were conducted with District ENTERPRIZE teams, DFNSCs, Internal, Savings and Lending (ISAL) groups, community health and agriculture extension workers, care groups and farmer groups. The report reflects the situation at the time of the study.

There were limitations to the method. Some key partners were not interviewed, including private sector partners (value chain actors), DFID Zimbabwe (LFSP donor), Palladium (MD lead), Coffey (MR&E lead) and HarvestPlus (responsible for biofortification promotion). The assessment therefore missed out on valuable opinions in key areas, including value chains and MR&E. Another limitation was that the interview sites and respondents were not selected at random but chosen by the project and therefore their selection may have introduced bias. There was also a tendency towards positive responses, possibly related to the expectations of beneficiaries.

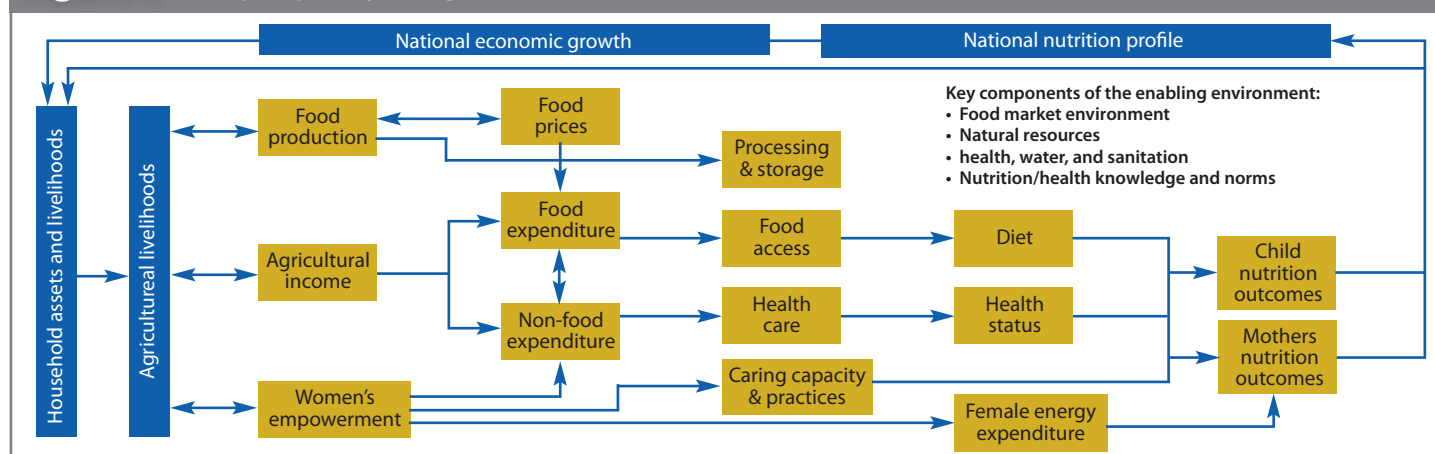
Findings

Assessment of need and context: Several surveys were carried out during the start-up phase of the project, including a contextual analysis; baseline survey; knowledge, attitude and practices (KAP) survey; barrier analysis to fine-tune behaviour change communication (BCC) activities; and a gender analysis to develop the gender strategy. These studies guided the design of ENTERPRIZE. Analyses on socio-economic differences in malnutrition were not conducted but would have further informed the targeting criteria.

Development of a theory of change (ToC): The pathways from programme activities to improved nutrition were not included in the original ToC diagram but were drawn out during meetings with project partners during the assessment (see Figure 2). The ToCs presented in project documents did not describe clearly the ways in which project activities could impact nutrition outcomes. The potential for nutrition impact would be improved if these pathways had been monitored to understand and respond to changes during project implementation. Nutrition was a substantive outcome with clear approaches and intervention for PLW and young children, but the impact pathways for other components were not drawn up during project design.

The gender pathways are strong in this project and Gender Action Learning System (GALS) (see Box 1) is a key component that facilitates the other pathways. The GALS component has supported other programme activities, such as the rollout of trainings. As women have greater influence in their communities, men seem more willing to take on a broader range of tasks than before. Respondents' testimonials also suggest that GALS has had a strong positive impact on nutrition through women's power to influence household decisions around food and nutrition.

The assessment revealed that value chain activities within the programme were designed to increase income, rather than produce affordable, nutritious food for local or distant consumption. This may limit the impact of the programme on

Figure 2 Conceptual pathway from agriculture to nutrition

nutrition outcomes. Although the criteria for selection of value chain crops included those that are nutritious, including biofortified maize and beans, more work needs to be done beyond production to enhance the nutrition sensitivity of the entire value chain. Improving water availability for agriculture or health was not included in the design of the project; this proved to be an important limitation of the project in the context of the drought that was occurring in Zimbabwe at the time of the assessment.

The project supports the production and marketing of diverse foods, but a key question is what food is available and affordable to the poor (farmers or non-farmers) in practice. It would be helpful if the project explored some of the links between production and consumption (who produces what and who consumes what). Assumptions in the project log frame have not been assessed and could affect successful nutrition outcomes, such as 'access to nutrition foods from markets', 'no serious or macro-economic instability' and 'no severe or prolonged drought'.

Targeting: Nutrition-specific activities are appropriately targeted to the first 1,000 days (PLW and children under two years of age), irrespective of socio-economic classification. However, farmers groups targeted middle-income farmers with capacity to increase productivity and not the poorest or better-off. Whilst the review identified that poorer and more well-off farmers also accessed support, omitting the poorest and most vulnerable from targeted activities is a key limitation of the programme that reduces the potential to improve nutrition.

Integration or co-location and coordination: In the initial years before the DFNSC was up and running, challenges in the coordination of trainings and other community activities were common, leading to conflict between farmer and care group activities. As the committee has evolved, there have been positive changes in this respect.

ENTERPRIZE activities are co-located at district-level (the same districts are included in all activities). Within wards, however, the same households are not necessarily targeted for all activities. The district ENTERPRIZE teams are also located together under one roof, making

coordination easier. Other initiatives such as learning visits to other LFSP projects have helped cross-sector communication. *The Healthy Harvest*² training manual naturally integrates agriculture and nutrition 'from farm to fork' and DFNSC nutrition training helps build understanding of the pathways between agriculture and nutrition. However, there have been coordination challenges, such as a lack of clear strategy and resources for DFNSCs and different priorities and targets for each sector. Also, agriculture extension has insufficient resources for nutrition training in practice.

Training, capacity-building and behaviour change communication activities: The project is delivered through government structures and it supported the establishment of the DFNSC in its initial training and ongoing meetings; WVZ participates in the DFNSC as an NGO member. The DFNSC and WVZ work together on community trainings and monitoring activities and the DFNSC is involved in training ward extension staff who are frontline facilitators at field-level.

Nutrition training is delivered through care groups, with training cascading to reach the 'first 1000 days' target group. There is also some nutrition material covered in training to agriculture extension workers using the *Healthy Harvest* manual. The DFNSC has received some nutrition training but the level of staffing for nutrition is probably not adequate for the scope of work to deliver the full nutrition components. In future, the project would benefit from a shared curriculum on nutrition across sectors.

Implementation: The project has been adapted well to the context and implemented according to timeframes and targets, even during the severe drought in 2016. Several factors enabled successful implementation, including supportive government policies, a strong focus on gender, effective cascade training models including practical demonstrations and tailored BCC messages, and strong human resources. However, there have been several challenges related to implementation, including:

Resource and co-ordination issues around training: There have been limited resources for training

and sometimes poor communication between the different government and NGO partners involved.

Lack of cross-learning across training models: Training materials related to the Healthy Harvest manual are not available in easy-to-use formats for the cascade training. There is no plan to roll out the training with a different message each month and barriers to practice have not been adequately determined. It would be helpful for the agriculture extension department to learn from the care group BCC rollout in these respects.

Insufficient inputs: There appears to be a chronic shortage of seeds for crops other than maize. Even the biofortified seeds supplied by the project had initial supply problems. Other seeds of naturally nutritious grains such as pulses, small grains and vegetables also have supply problems. This, a lack of inputs and lack of water affects farmers' ability to plant the crops suggested in the training.

Price issues: Commodity groups are not getting good prices from buyers and buyers dictate the price. Farmers reported that prices in the market are low for produce which then affects the farmers' motivation to grow these crops.

Challenges for agricultural diversification: During the 2015/16 drought, agriculture was challenged; diversification became difficult as farmers concentrated on staple production. Agricultural diversification has also been challenged by national maize supporting policies (such as provision of maize seeds and other inputs).

MR&E: There is considerable effort to collect the required data by ENTERPRIZE and government partners, through extension staff, community promoters, lead mothers and lead farmers. However, the project is complex and more routine quantitative data is collected than can be analysed; there is also limited qualitative routine monitoring. There is an accountability system in place for beneficiaries to receive information on the project and provide feedback on services, but this is not structured for nutrition

² An FAO nutrition training manual for community workers on good nutrition and the growing, processing and preparation of healthy food.

monitoring purposes. The dissemination of the findings of the considerable MR&E effort to communities is also underdeveloped.

Impacts on nutrition: At baseline, chronic malnutrition (stunting) was 26.8% and global acute malnutrition (GAM) in 6-59 months children was 3.2% (DHS 2015). It was not considered appropriate to include stunting as an impact indicator, given the short duration of the project. Wasting not considered as an indicator, which has since been identified as a missed opportunity and something to consider in future phases of this and other programmes. Communities reported several positive knowledge and behavioural changes related to nutrition; for example, use of new food groups for children's porridge; support for women to prioritise food for young children; improved nutrition and hygiene knowledge; and improved conservation agriculture practices. Importantly, women reported that feeding practices had improved because conservation agriculture saves time and heavy workload. Respondents reported many challenges related to the drought which have an impact on nutrition, particularly the lack of water, reduced agricultural production, reduced income from sales and lack of agricultural diversification.

Unintended nutritional consequences: Potential unintended consequences related to nutrition have not been fully explored by ENTERPRIZE. These could include the production of highly processed foods through the value chain, contributing to the 'double burden' of malnutrition and chronic disease; nutritious foods sold rather than consumed at home; and exclusion of the poorest farmers, which could leave them relatively worse off compared to others.

Scaling up and sustainability: The ENTERPRIZE project is contributing to the Scaling Up Nutrition Movement (SUN) by supporting the DFNSC, contributing to MR&E systems and tackling gender inequities. Some agricultural approaches used in the project, such as conservation agriculture and climate-smart agriculture, will be environmentally sustainable compared to the high-input, high-tillage, mono-crop alternatives; however, an alternative to herbicides is needed to prevent contamination of crops and possible exposure of farmers to health risks. Whether the committee will be able to continue the joint planning, coordination and monitoring activities without external project support remains an open question.

Throughout the project the government faced financial constraints to adequately finance agricultural and nutrition extension. It is therefore unlikely that the government will take up the entire package of interventions in this programme in the immediate future. Further funding for this programme would help to consolidate the gains made while the enabling public sector/government environment improves. Efforts have been made to work with government ministries at district and national levels during implementation and learning and best practices have been shared with government stakeholders at national learning events. There is willingness at the district government level to take up project activities after transition, once finances allow. Policy at national level has also been influenced by the programme, particularly in the support of small grains and biofortification and national subsidies to promote conservation agriculture.

Discussion and lessons learned

Lessons learned from the ENTERPRIZE case study are described in Box 2.

Conclusions

The effort to introduce 'nutrition-sensitivity' into existing and new programmes is crucial to address the urgent and widespread problems of malnutrition globally. ENTERPRIZE has made considerable efforts to integrate nutrition into its ENTERPRIZE project; however, internal and external challenges remain. Since this review, ENTERPRIZE has responded to lessons learned to improve nutrition sensitivity by expanding targeting of nutrition and diet messaging to groups beyond PLW to include neighbourhood women, men's forums and extended family members. Reach has been improved to the most vulnerable villages with high levels of malnutrition through community-level food fairs in those villages. Agriculture training has been extended to nutrition care groups, health technicians and village health workers on agronomy practices for biofortified, vitamin A-rich maize and iron-rich beans, post-harvest management, food storage and preservation techniques. Care groups and farmers have also been trained in the *Healthy Harvest* agriculture module to increase their skills on diversified food production, and care groups have been supported to set up household micro-gardens and continue to manage community nutrition gardens to promote inclusive production. In addition, all 1,530 lead crop farmers have been trained on key nutrition messages, harvest and post-harvest handling procedures, value addition and processing.

To strengthen monitoring practices, the project has implemented quarterly monitoring of DFNSC activities, monthly monitoring of uptake of agriculture and nutrition services and practices through focus group discussions with beneficiary communities, and monthly accountability monitoring and feedback with farmer households. Further case studies and an implementation guide would help move this work forward.

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The full report is available from World Vision: www.worldvision.org.uk/files/2315/1024/1152/IntegratingNutritionwithAgricultureCaseStudy.pdf

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Box 2 Learning points from the ENTERPRIZE case study

- **Guidelines:** Develop a practical guide for the design, implementation and assessment of nutrition-sensitive programmes, to complement existing guidelines.
- **Partnerships:** Form early partnerships with district government, community and the private sector to establish ownership and understand complementarities and trade-offs.
- **Assessing needs and context:** Assess the environmental, social, political, cultural, economic and nutrition contexts and groups affected by malnutrition, based on existing data where possible.
- **Theory of change (ToC), programme design and targeting:** Test the design assumptions through monitoring and surveys and use results to revise ToC, activities and approaches; involve the community and partners in ToC development to verify assumptions and open new possibilities; explore the full potential of value chains (and even 'value webs' to analyse the whole food system); integrate and fully fund a safety net component; ensure the poorest groups participate in farmers groups, value chains, subsistence production and income-generating activities; include a gender component (such as GALS); target the right groups (first 1,000 days for nutrition-specific activities and a wider group for nutrition-sensitive activities, ensuring the poorest are included).
- **Implementation and coordination:** Allow for a longer implementation period than would be necessary for single-sector programmes; plan for integration and coordination at project design; target barriers to behaviour change specific to the community; ensure funding is flexible to allow adaption to observed changes.
- **Training and capacity-building activities:** Include nutrition expertise from the earliest design stage; train all groups involved using a multi-sector curriculum and materials (livelihoods, agriculture, nutrition and health); develop communication, coordination and integrated data management skills within the programme.
- **Monitoring and evaluation (M&E):** Link the ToC to M&E plans; involve beneficiaries in participatory monitoring; monitor data to consider the effect of the programme on the poor and extreme poor; include a coordination process level indicator; include a mechanism to recognise and mitigate unintended consequences (open ended questions).
- **Sustainability:** Support government structures to build sustainability; build social accountability through extension work, safety nets, climate smart approaches and sustainable agriculture, all underpinned by engagement of communities.