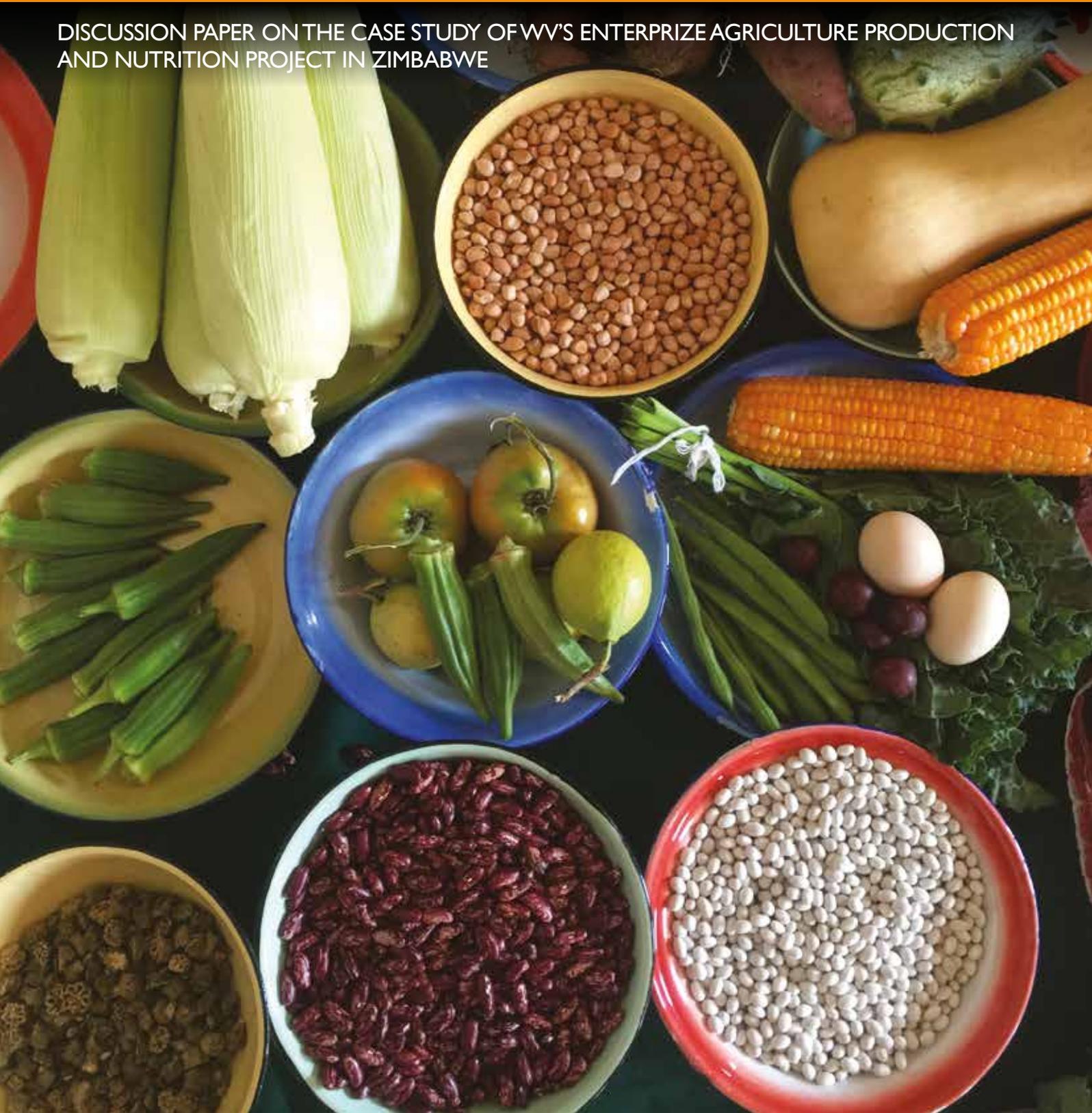


AUGUST 2017

Operational Factors for Integrating Nutrition with Agriculture/ Livelihood Programmes

DISCUSSION PAPER ON THE CASE STUDY OF WV'S ENTERPRIZE AGRICULTURE PRODUCTION AND NUTRITION PROJECT IN ZIMBABWE





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Report authors: Anne-Marie Mayer, Nutrition and Agriculture Consultant with Rose Ndolo, Senior Nutrition and Food Security Adviser; World Vision UK and Jane Keylock, Nutrition and Food Security Consultant, NutritionWorks.
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World Vision UK
World Vision House, Opal Drive,
Fox Milne, Milton Keynes, MK15 0ZR
www.worldvision.org.uk

World Vision UK
London office
11 Belgrave Road,
London, SW1V 1RB

NutritionWorks
203 Blackfriars Road
London SE1 8NJ
Tel +44 (0)20 7922 0300

World Vision is a registered charity no. 285908, a company limited by guarantee and registered in England no. 1675552. Registered office as above.

Executive summary

Introduction:

Whilst the current guidance on nutrition-sensitive programming is very useful for design and evaluation, the implementation of multi-sectoral programmes for nutrition benefit has not been so well described. This present assignment seeks to understand more fully the operational issues related to nutrition-sensitive programming using a case study of one of World Vision's multi-sector programmes; the ENTERPRISE programme in Zimbabwe. The conceptual pathways between agriculture and nutrition (SPRING 2014) and guiding principles for the design of agriculture programmes for nutrition (FAO 2013) were used for the case study.

The Case Study

The ENTERPRISE programme (Ensuring Nutrition Transforming and Empowering Rural Farmers and Promoting Resilience in Zimbabwe) is a four-year multi-sector programme in Mashonaland led by World Vision Zimbabwe and is one of 3 subprojects of the Agricultural Productivity and Nutrition (APN) component of the Livelihoods and Food Security Programme (LFSP) in Zimbabwe funded by the UK Department for International Development (DFID). It aims to benefit 25,500 farmers directly and 75,650 households indirectly. The ENTERPRISE programme aims at improving food and nutrition security through coordinated activities across agriculture and health sectors primarily. It is complex with many links across the sectors and partnerships covering government, NGOs and private sector.

Methods

Interviews and Focus Group Discussions were carried out with stakeholders including technical specialists, World Vision staff, government staff and community-based groups and farmers. A question guide was developed from nutrition sensitive programming guidelines and incorporated lessons learnt from the literature review, consultant's experience and KI interviews. The interview questions followed a programme cycle and 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? What comparisons can be made between programmes that are co-located and those that are integrated?'

The assignment was carried out from October 2016 to February 2017 by Anne-Marie Mayer. There were limitations to the method. Private sector partners, DFID Zimbabwe, Palladium and Coffey who are key stakeholders were not interviewed. Also, the sites for the interviews were chosen by the project and stakeholders were invited; their expectations could introduce bias.

Findings

Forming partnerships: The partnership formed to implement ENTERPRISE was multi-sectoral including NGOs, an International Agriculture Research organisation, Zimbabwean Government and the private sector. Government Partners at the district level were not involved in the design of the ENTERPRISE project; the proposal was formulated in Harare by WV, ICRISAT, Mercy Corps and FACHIG within an established Call for Proposals by FAO.

Assessing need and context: The ENTERPRISE proposal lists poor utilisation of food resources, limited access to diverse and quality food at the household level as the main contributors to chronic malnutrition. The prevalence of overweight, obesity and other signs of the 'double burden' were not assessed, nor were any socio-economic differences in malnutrition assessed.

Develop Theory of Change (ToC): The ToCs available in project documents did not describe clearly the ways in which activities could impact on nutrition improvement. Value chain activities were designed to increase income rather than produce affordable nutritious food for local or distant consumption. Food markets for purchase have not been considered as part of value chains. The gender pathways are strong in this project and Gender Action Learning System (GALS) is a key component that facilitates the other pathways. Several theoretical pathways from project activities to nutrition are possible, but health, water and sanitation are not part of proposal, apart from BCC activities at the household level. The assumptions in the logframe have not been assessed and could affect successful outcomes. It is not clear whether improvement to chronic malnutrition is anticipated and hence stunting is not measured.

Programme Design: ENTERPRISE follows the Zimbabwean national nutrition policy and fits well with the DFID nutrition strategy. Nutrition in ENTERPRISE is divided into 'nutrition-specific' actions, those primarily designed to address the immediate causes of malnutrition and 'nutrition-sensitive' broadly designed to address the underlying and basic causes of malnutrition. The nutrition-sensitive include nutritious value chain commodities, a gender empowerment strategy, support for the District Food and Nutrition Security Committee (DFNSC) and ward level committees; support for diversified crop production-through cascade farmer trainings; promotion of post harvesting management and processing; preservation methods.

Targeting: Care Groups are targeted to first 1000 days irrespective of socio-economic classification. However, ENTERPRISE follows LFSP targeting guidelines for farmers' groups which target middle-income farmers and not the poorest or better-off. For nutrition impact, it is important to include the poorest and the most vulnerable.

Integration or co-location and coordination: ENTERPRISE is not fully integrated because implementation is carried out by separate government sectors. The presence of the DFNSC facilitates coordination of activities between the different District and Ward government sectors. ENTERPRISE non-government partners are well coordinated.

Implementation: There is some evidence that the programme has been adapted well to the context. Several factors enable implementation, such as supportive government policies, a strong focus on gender, effective cascade training models and practical demonstrations, Behaviour Change Communication (BCC) based on prior analysis of barriers and strong human resources. Blockers of implementation include coordination and resources for training, insufficient inputs, price issues, and crop diversification is challenged by current agricultural practices. It is early to assess the impact of the programme; however, the testimonials of respondents were positive.

Unintended consequences: Potential unintended consequences have not been fully explored by the implementing partners to date. These could include production of hyper-processed foods through the value chain contributing to the 'double burden' of malnutrition and chronic disease; nutritious foods sold rather than consumed at home; high input agriculture can introduce risks particularly during drought; conservation agriculture introduces herbicides that could pose a risk to human health and excluding the poorest farmers could leave them relatively worse-off compared to others.

Training and Capacity building activities: To date the main opportunity for nutrition training is delivered through Care group training cascade which only reaches the targeted 1000 days' group. The DFNSC has received some nutrition training. The level of staffing for nutrition is probably not adequate for the scope of work to deliver the full nutrition components. The Value chain partners have no mandate to work on nutrition which means that 'Value Chains for Nutrition' has not so far been fully explored in the project.

Monitoring and Evaluation (M&E): There is a consolidated framework for the LFSP but no separate logframe for the ENTERPRISE project. Whilst there is considerable effort to collect the required data by ENTERPRISE and Government partners, there are currently shortfalls in the M & E design. The indicators for nutrition are not driven by the ToC, the context and assumptions are not monitored routinely. There appears to be more routine data collected than can be analysed and there is little time for qualitative data to monitor impact of the activities. It is not clear from the data where there is overlap in activities at the household level. Finally, the dissemination of the findings of the considerable M&E effort to communities is underdeveloped.

Scaling up and sustainability: The Scaling Up Nutrition movement (SUN) has produced a strategy for scaling up nutrition (Scaling Up Nutrition 2016-2020). The ENTERPRISE programme is contributing by supporting the DFNSC, contributing to M & E and tackling gender inequities as well as the other components. The Conservation Agriculture and Climate-Smart Agriculture will be environmentally sustainable compared to the high input alternatives, however an alternative to herbicides is needed to prevent contamination of crops and exposure of farmers to possibly carcinogenic chemicals.

Points for learning

ENTERPRISE experience offers scope for learning for multi-sector nutrition programmes. The existing guidelines and frameworks are useful for assessing the nutrition-sensitivity of programmes, such as the FAO guidelines (FAO 2013). However, a practical guide for implementation and assessment of multi-sector programmes would advance the field.

Early involvement of district government partners, community and the private sector is useful to build confidence and ownership of the programme. Communities need to participate fully in every stage from identifying their problems, aspiration and challenges to design and monitoring progress and assimilating learning. With a project, such as ENTERPRISE, it is not possible to fully integrate because activities are being implemented by Government partners who operate in separate sectors. One approach is integrated design, coordinated sector specific implementation, integrated evaluation.

The ToC should describe the ways in which the programme theoretically impacts nutrition and the pathways to impact and this should drive M&E plans. A multi-sector programme needs a longer implementation period than single sector programmes and this needs to be incorporated into the design. A gender component was much appreciated and crucial to the impact of the ENTERPRIZE programme, so this should be prioritised. There is much more potential to work with Value chains to introduce nutrition sensitivity and localise the benefits for communities. For livelihood programmes, safety nets are necessary for those unable to benefit from programme activities. The sustainability of a programme will depend on government structures, so effort to support these builds sustainability. Some flexibility in funding is needed to adapt to observed changes.

It is important to ensure relevant targeting to achieve improvements in nutritional outcomes, i.e. vulnerable groups, particularly the poor and target households in the first 1000 days. Nutrition impact will only be possible where all benefits meet at the level of the individual child.

If a programme aims to impact nutrition, nutrition expertise needs to be available for the design at the earliest stage, then progress against nutrition objectives tracked throughout. Capacity building should include skills on coordination and capacity to integrate nutrition. A multi-sectoral curriculum covering all topics across livelihoods, agriculture, nutrition and health can promote coherence. The prevalence of overweight, obesity and other signs of the 'double burden' need to be included in assessments and impact because the pattern of nutrition problems are changing globally.

Monitoring plans need to consider the effect of the programme on the poor and extreme poor. There needs to be a clear purpose for each piece of data collected and computerised. Monitoring needs to go beyond tracking outputs to a fuller understanding of impact by including assessments of dietary change, knowledge, the nutrition environment or other key indicators. It is important for the design assumptions to be tested during monitoring or special surveys. A mechanism to recognise and mitigate unintended consequences is also necessary.

Conclusions

ENTERPRIZE has made considerable efforts to improve implementation, coordination and integration and there are still challenges in design and implementation. Future programmes can learn from the experience of ENTERPRIZE and the effort to introduce 'nutrition-sensitivity' into existing and new programmes is important to address the urgent and widespread problems of malnutrition globally.



Abbreviations

Ag2Nut Agriculture to Nutrition	IP Implementing Partners
AEW Agriculture Extension Worker	ISAL Internal Savings and Lending
AGRITEX Department of Agricultural, Technical and Extension Services	IYCF Infant and Young Child Feeding
APN Agricultural Productivity and Nutrition	LFSP Livelihoods and Food Security Programme
BCC Behaviour Change Communication	LPD Department of Livestock and Development
CSA Climate Smart Agriculture	MAD Minimal Acceptable Diet
CA Conservation Agriculture	MAMID Ministry of Agriculture, Mechanisation and Irrigation Development
CARE Cooperative for Assistance and Relief Everywhere	MD Market Development
CIRAD Centre de Coopération Internationale en Recherche Agronomique pour le Développement	MDGs Millennium Development Goals
DBC Design for Behaviour Change	MHH Male-Headed Households
DFID UK Department for International Development	MIS Management Information System
DFNSC District Food and Nutrition Security Committee	MoH Ministry of Health
EHT Environmental Health Technician	MR&E Monitoring, Reporting and Evaluation
ENIPPA Extended Nutrition Impact and Positive Practices Approach	M&E Monitoring and Evaluation
ENSURE Enhancing Nutrition, Stepping Up Resiliency and Enterprise	NGO Non-Governmental Organisation
ENTERPRIZE Ensuring Nutrition, Transforming and Empowering Rural Farmers and Promoting Resilience in Zimbabwe	OECD Organisation for Economic Cooperation and Development
EU European Union	PAM Pro Vitamin A Maize
FACHIG Farmers Association of Community Self- Help Investment Groups	QPM Quality Protein Maize
FAO Food and Agriculture Organisation of the United Nations	RAIN Realigning Agriculture to Improve Nutrition
FFS Farmers Field School	SIDA Swedish International Development Cooperation
FGD Focus Group Discussion	SMS Short Message Services
FHH Female-Headed Households	SNV Netherlands Development Organisation
FHI 360 (not available full name)	SUN Scaling Up Nutrition
FHS Farmers' Household Survey	SPRING Strengthening Partnerships Results and Innovations in Nutrition Globally
GALS Gender Action Learning System	ToC Theory of Change
GBV Gender Based Violence	TOPS Technical and Operational Performance Support
GAP Good Agricultural Practices	ToR Terms of Reference
GoZ Government of Zimbabwe	ToT Training of Trainers
HHS Household Hunger Scale	UK United Kingdom of Great Britain and Northern Ireland
HIV Human Immunodeficiency Virus	UN United Nations
HKI Helen Keller International	UNDP United Nations Development Programme
HOH Head of Household	UNICEF United Nations International Children's Emergency Fund
IARC International Agency for Research on Cancer	USAID United States Agency for International Development
ICT Information and Communications Technology	VCA Value Chain Analysis
ICRISAT International Crops Research Institute for the Semi-Arid Tropics	VET Department of Livestock and Veterinary Services
IEC Information Education and Communication	VfM Value for Money
IFAD International Fund for Agricultural Development	VHW Village Health Worker
IFPRI International Food Policy Research Institute	WASH Water, Sanitation and Hygiene
IGA Income Generating Activities	WFP World Food Programme
ILRI International Livestock Research Institute	WV World Vision
	ZDHS Zimbabwe Demographic and Health Survey
	ZimSTAT Zimbabwe National Statistics Agency
	ZimVAC Zimbabwe Vulnerability Assessment Committee

I. Introduction

Nutrition is now on the agenda for development perhaps more than ever before. For example, the recent decision of the UN General Assembly to declare 2016-2025 as the Decade of Action on Nutrition presents a major opportunity to mobilise action around reducing hunger and improving nutrition.

Nutrition actions are broadly divided into 'nutrition-specific' actions, those primarily designed to address the immediate causes of malnutrition and 'nutrition-sensitive' designed to address the underlying and basic causes of malnutrition from the UNICEF model (UNICEF 1990). A fuller working definition of nutrition-sensitive interventions and programmes are available (Ruel and Alderman 2013).

Nutrition-sensitive agriculture has received much attention with the development of guiding principles (FAO 2013) and the identification of several pathways between agriculture and livelihoods and nutrition (SPRING and Feed the Future 2016). Guidelines are also available for designing nutrition-sensitive agriculture investments (FAO 2015). 'Value Chains for Nutrition' has also emerged as a way to introduce nutrition-sensitivity into Value Chain programmes (SPRING and Feed the Future). This body of work has enabled practitioners and researchers alike to design and evaluate nutrition-sensitive programmes.

Whilst the current guidance is very useful for design and evaluation, the implementation of multi-sectoral programmes for nutrition benefit has not been so well described. The operational factors that enable or constrain multi-sector programmes need to be examined and lessons drawn out to improve the practicalities of implementing these types of programmes.

NutritionWorks carried out an initial scoping study for World Vision UK to help build an organisational strategy for nutrition-sensitive agriculture programming (Mayer and Keylock 2015). This present assignment builds on this foundation to understand more fully the operational issues related to nutrition-sensitive programming using a case study of one of WW's multi-sector programmes.

Research Questions

The overall aim of the assignment was to address the following focal questions:

1. 'In seeking to make agriculture and livelihood programmes nutrition-sensitive, what are the operational opportunities and challenges that programmes face?
2. What lessons can be drawn from practical experience?
3. What comparisons can be made between programmes that are co-located and those that are integrated?

Using these three focal questions as a foundation, research questions were developed to serve as a guiding framework for an analysis of World Vision's own programmes.

1. Have WW followed nutrition-sensitivity guidelines in design and implementation of programme.
2. Does the theory of change have the potential for impact on nutrition objective(s)?
3. Has the implementation of programmes been carried out according to the plans (fidelity)?
4. Have the activities been adapted to the context (contextualisation)
5. Have the activities reached the targeted beneficiaries with planned activities?
6. What are the enablers and blockers of full implementation? (policy, context, funding, design, other)
7. What are the advantages or disadvantages of full integration compared to co-location?
8. What are the potential impacts of the programme on nutrition?
9. Has the implementation of the programme been effective, i.e. have the activities had the planned results?
10. Are there any unintended consequences of the programmes as implemented?
11. How well are monitoring and evaluation frameworks functioning?
12. How well does the programme fit national plans for nutrition?

2. Methods

The methods sought to answer the research questions through a literature review and a case study:

Literature review: A literature review was carried out to understand the latest experiences of WV and other agencies and to develop a question guide for the case study. Search keywords used were: Agriculture, Nutrition-sensitive, Livelihoods, Value Chains, multi-sector. The search used Field Exchange, Google Scholar, SPRING resources, DFID resources, resources from the Ag2Nut Community of Practice and Secure Nutrition, NGO sources for similar programmes and literature from a previous review for WV (Mayer and Keylock 2015). Documents specific to ENTERPRIZE were also reviewed.

Key Informant Interviews Seven KIs were interviewed prior to the field visit from academia, NGOs, freelance consultants working in the field of nutrition-sensitive agriculture and value chains (Annex 1). The purpose of these interviews was to fine tune the questionnaires and gain some insights on their experiences of implementing multi-sector programmes. A list of key informants is in Annex 1;

Case study: The ENTERPRIZE programme in Zimbabwe was selected for the case study and an 11 day visit to the ENTERPRIZE programme in Zimbabwe was conducted by Anne-Marie Mayer and Rose Ndolo. Interviews and Focus Group Discussions were carried out with a range of stakeholders including World Vision staff, government staff and community-based groups and farmers. A list of stakeholders is in **Annex 1**; these were chosen in consultation between the consultant and WV. An initial visit to Harare WV office was followed by visits to Guruve for 3 days and Mount Darwin for 3 days where the interviews took place. The Schedule is in **Annex 2**.

A question guide was developed from nutrition sensitive programming guidelines and incorporated lessons learnt from the literature review, consultant's experience and KI interviews. The questions followed a typical programme cycle and were designed to answer the research questions above whilst thoroughly examining all aspects of nutrition sensitivity. (details in **Annex 3**).

The review of the ENTERPRIZE programme in Zimbabwe serves as a case study to start to address the gap in evidence and also explore the possible methods for carrying out an operational review for nutrition-sensitivity of multi-sector programmes. The findings of the case study are presented using a project cycle framework. At each stage the overall programme and individual components are examined for nutrition-sensitivity, appropriateness to context, sustainability with opportunities and challenges for integration.

The assignment was carried out from October 2016 to January 2017 by Anne-Marie Mayer.

Limitations of the methods

The ENTERPRIZE project is connected with numerous partners and stakeholders and it was not possible to meet or interview all, nor go into detail in every area of the programme. Notably the private sector partners were not included and this limits the discussion of value chain activities without their perspectives. It was also not possible to visit any markets or gain an understanding of what foods are available in different seasons. It was not possible to secure interviews with DFID Zimbabwe, ICRISAT, nor Palladium and Coffey who are the other partners with FAO in the LFSP.

During the field visit the groups interviewed were invited to attend so they were not a random sample. The choices of communities to visit and expectations of the respondents following a visit by outsiders from abroad could also have affected the responses. WV staff were largely not included in the discussions to avoid biased responses.

The ENTERPRIZE programme

The ENTERPRIZE (Ensuring Nutrition Transforming and Empowering Rural Farmers and Promoting Resilience in Zimbabwe) programme is led by World Vision Zimbabwe and is one of 3 subprojects of the Agricultural Productivity and Nutrition (APN) component of the Livelihoods and Food Security Programme (LFSP) in Zimbabwe funded by the UK Department for International Development (DFID). Three consortiums led by 3 different NGOs were established to implement the APN component of LFSP. The project period is 2015 to 2017. The location is Mashonaland, Guruve and Mount Darwin Districts.

The LFSP includes three components that were designed as a combined programme from which a high degree of synergy and complementarity is expected. These components are:

- the APN component for which the management organisation is the Food and Agriculture Organisation of the United Nations (FAO),
- the Market Development (MD) component for which the managing partner is Palladium
- the Monitoring, Reporting and Evaluation (MR&E) component which is managed by Coffey.

The overarching strategy of ENTERPRIZE is to mobilise and support multi-stakeholder partnerships and community-based groups, grow local capacity, and work within existing systems to stimulate demand for and support equitable access to private and public products and services which contribute to lasting improvements in the productivity, profitability, resilience and nutrition of small-holder farmers. Underpinning the entire strategy is intensive analysis and action on gender at farm household, farm organization, and farm and market system levels.

The ENTERPRIZE programme is a good example of a multi-sector programme with the goal of improving food and nutrition security through coordinated activities across agriculture and health sectors primarily. It is complex with many links across the sectors and many stakeholders and partnerships covering government, NGOs and private sector. How these organisations can work together in practice in the pursuit of nutrition goals is a very important question. This makes ENTERPRIZE a good example of a multi-sector programme and ideal for the purpose of this assignment.

Theory of change of the LSFP (Annex 4) and ENTERPRIZE project (Annex 5) demonstrate how the project is designed to have impact on nutrition. These are critiqued below.

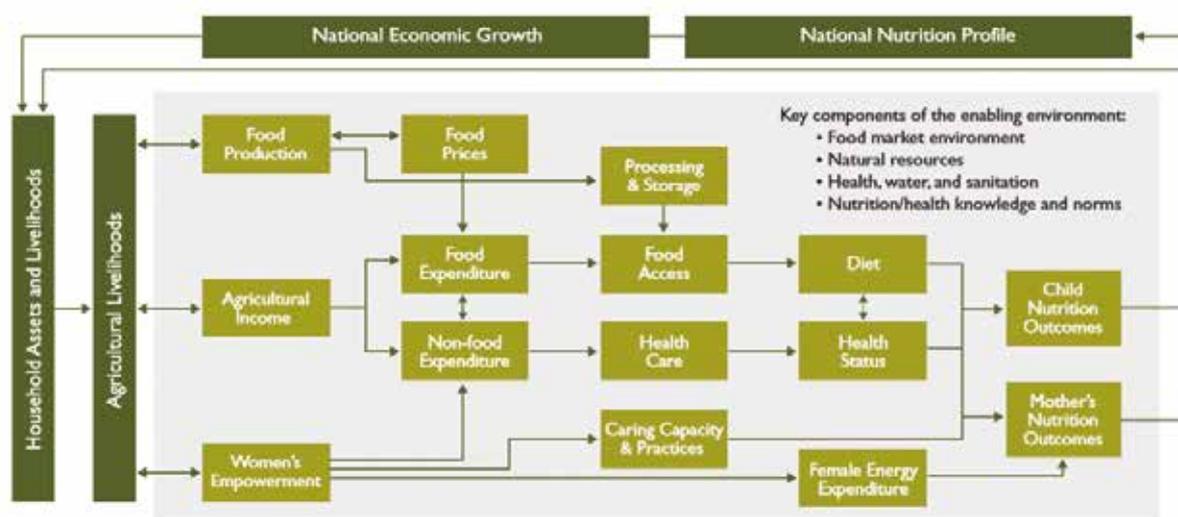
3. Findings

Main findings from the literature review

How to design for nutrition-sensitive agriculture?

The Conceptual Pathways between agriculture and nutrition are very useful when reviewing programmes for nutrition sensitivity. These can be referred to for determining whether the programme is optimising its impact on nutrition by maximising the potential of the relevant pathways (Figure 1).

Figure 1 Conceptual Pathway from Agriculture to Nutrition



Adapted for Feed the Future by Anna Herforth, Jody Harris, and SPRING, from Gillespie, Harris, and Kadiyala (2012) and Headey, Chiu, and Kadiyala (2011).

The Guiding Principles (FAO 2013) supply a useful checklist for nutrition-sensitive programmes and there are further details on how to design the investments (FAO 2015). This checklist was augmented by reference to other sources to produce a programme design and implementation checklist. The Programme Design and Implementation Checklist is presented in Box 1 (Committee on World Food Security, Committee on World Food Security 2014).

PROGRAMME DESIGN & IMPLEMENTATION CHECKLIST

(Committee on World Food Security, FAO 2013, Committee on World Food Security 2014)

1. Support small scale farmers to improve productivity and profitability whilst protecting natural resources through soil, water and biodiversity conservation
2. Respect cultural heritage and traditional knowledge, and support diversity and innovation
3. Empower women, the primary caretakers in households, through: (i) increased discretionary income, especially via increased attention to crops/livestock grown by women; (ii) improving women's access to extension services, financial services, technology, inputs, markets and information; (iii) avoiding harm to their ability to care for children; (iv) investing in labour- and time-saving technologies targeted to women; (v) adding programme components to enable high-quality child care; and (vi) advocating for policies to support women's rights to land, education and employment.
4. Diversify production and livelihoods for improved food access and dietary diversification, increase production of nutrient-dense foods, particularly locally-adapted varieties rich in micronutrients and protein.
5. Reduce post-harvest losses and improve processing to increase and prolong access to and consumption of diverse foods among both producers and consumers, to preserve or increase nutrient content of food, to increase income and profit margins and to improve food safety.
6. Maximize impact of household income on nutrition through concerted design efforts, such as through increasing women's access to income-generating opportunities and discretionary control of income.
7. Increase market access and opportunities to improve smallholder incomes (especially for women) and consumer diets. Enhancing the fairness, transparency, efficiency, and functioning of markets, in particular taking into account the interests of smallholders, improving related infrastructure.
8. Reduce seasonality of food-insecurity through diversification throughout the year; improved storage and preservation, and other approaches.
9. Promote safety, quality, and the nutritional value of food and agricultural products.
10. Enhancing food utilization through access to clean water, sanitation, energy, technology, childcare, healthcare, and access to education, including on how to prepare, provide, and maintain safe and nutritious food.
11. Enhancing awareness, knowledge, and communication, on food quality, safety, nutrition, and public health issues, leading to strengthened capacity along the entire agriculture and food system, particularly for smallholders.
12. Do no harm. Potential harms could arise from increasing women's workloads, crop choice, agrochemicals, increased agricultural water use and zoonotic disease.

Value Chains

Value chains is one key approach of the ENTERPRIZE programme, therefore attention to nutrition-sensitive Value Chains is important. 'Value Chains for Nutrition' has emerged recently as an approach to apply the principles of design for nutrition to Value Chain programmes. Four main goals for Value Chains for Nutrition were identified by IFPRI (Hawkes and Ruel 2011):

Goal 1: Increase the supply of accessible (available and affordable) nutritious foods for the poor (and for different target groups) all year round.

Goal 2: Increase the demand for and acceptability of nutritious foods for the poor.

Goal 3: Increase the coordination among value-chain actors and activities that are essential to increasing the supply of and demand for nutritious foods for the poor.

Goal 4: Address the trade-offs between the economic returns and nutritional benefits of agriculture in the value chain.

Another approach to improve the nutritional quality of foods through the value chain is to 'plug the leaks' of nutrients through the various stages of production, processing, cooking and consumption (Mayer 2011). In this way, it is possible to reduce nutrient losses during common processes such as milling, and to enhance bioavailability during fermentation, for example.

SPRING has worked on conceptualising the nutrition-sensitivity of value chains in Guatemala. The concept is to examine sensitivity at each stage taking a food systems approach. The steps along the value chain were assessed – i.e. inputs, production, processing, marketing and consumption. These steps provide a logical way to address nutrition sensitivity. This article describes a method and results of analysis of nutrition-sensitivity of value chains (green beans, coffee and handicrafts). Recommendations include, for example, technologies for time saving; production methods for water and soil conservation; local demand creation; childcare opportunities and safe disposal of waste. (Klein 2016).

Livelihoods and Nutrition

There are no specific guidelines available for 'nutrition-sensitive livelihoods'. However, many of the same principles apply as for nutrition-sensitive agriculture (see above).

Increased income is considered a 'blunt instrument' to improve nutrition. For example, on a national scale, a rise of Gross Domestic Product of 10% might result in a 6% decline in stunting (Ruel and Alderman 2013). This does not mean that for individual families improving livelihoods is not important for nutrition improvement. Programmes that aim to improve food supply alone with economic objectives may not improve nutrition and could be detrimental if food is directed to markets rather than for food security (World Bank 2013). This point is very key for projects such as ENTERPRIZE that take a production for market approach.

Behaviour Change Communication (BCC) and Nutrition

There have been numerous reviews of the evidence of nutrition impact of agricultural programmes and there is a reasonable consensus that agricultural programmes are more likely to show impact on nutritional status of children if Behaviour Change Communication (BCC) activities are included. Therefore, production alone without the knowledge, and supportive environment for adequate care will have minimal success. (Garrett and Natalicchio 2011, IFPRI 2011, Haddad and Meeker 2013, Ruel and Alderman 2013). The ENTERPRIZE programme has included a strong BCC component using the established Care Group model recognising this link.

Multi-sectoral programming for nutrition

According to the DFID nutrition strategy working multi-sectorially is essential to achieve nutrition impact (DfID UK 2010).

'Delivering an effective multi-sectoral response requires strong co-ordination and leadership at national and international levels. However, national capacity and response are often weak and there is often low political demand for action against undernutrition. Top level leadership is needed to clearly define the roles and responsibilities of each sector necessary to achieve a common goal. Weaknesses of national level systems for nutrition are further compounded by an ineffective international system with weak co-ordination and limited collective action.'

'Investing in multiple sectors to deliver improved nutrition: We will make sure our support for social protection, agriculture, health, water and sanitation, governance and education delivers meaningful improvements in nutrition too.'

Multi-sectoral programming for nutrition is gaining importance. The main sectors included are Health and Agriculture and also Gender, Economics, Rural Development (Action Contre la Faim 2011, Garrett and Natalicchio 2011, World Bank 2013, Harris and Buchsbaum 2014, Harris, Nguyen et al. 2016, SPRING and Feed the Future 2016). The Scaling Up Nutrition (SUN) movement has also been spearheading multi sector programming and policies for Nutrition in Zimbabwe with development of a Common Results Framework.

What is meant by integration and co-location in multi-sector programmes?

Several commentators have explored what is meant by integration for nutrition-sensitive programmes. A continuum between completely separate programmes to fully integrated programmes exist, for example as described by SPRING (Harris and Buchsbaum 2014)

There is, however, minimal analysis on what types of integration along this continuum are good for impact and the reasons for and against selecting a level of integration. However, the opportunities, challenges and lessons learnt from multi-



sector programmes is reviewed below. The opportunities and challenges were used for the purpose of informing the ENTERPRIZE case study and developed into questions for the Question Guide (**Annex 3**).

Challenges to and opportunities for multi-sector programmes

Pain and Matturi summarise the opportunities for successful multi-sector programmes (Pain and Matturi 2014)

'The factors that underpin that success include the following: strategic leadership, contextual awareness, flexible funding, knowledge management, capacity building and clarity of purpose. Ultimately, for integrated projects to be successful, project managers must create an environment where enquiry, evidence and learning are valued.'

FHI 360 describes the challenges to integrated approaches to complex global challenges (FHI 360)

'A majority of practitioners work in one narrow, highly specialized area of expertise, such as agriculture, health or the environment. At the same time, development initiatives remain uncoordinated, overlapping or duplicative, which wastes valuable limited resources. This current landscape, coupled with funding mechanisms that hamper the design of more holistic, integrated programs, continues to restrict the scope of solutions for meaningful, sustainable development.'

Their recommendations include the following:

1. Adopt a shared vocabulary and agenda
2. Design and plan for deep engagement with communities and governments
3. Develop creative contracting mechanisms that permit more flexibility adaptation and learning
4. Break down silos within organisations and develop a new kind of development workforce

A 'Feed the Future' case study from Bangladesh offers the following advice for multi-sectoral coordination and collaboration. (SPRING and Feed the Future 2016)

- Take a portfolio approach for nutrition to maximize nutritional outcomes from a multi-sectoral portfolio of activities.
- Plan collaborative efforts more strategically to affect nutrition and other outcomes.
- Incorporate clear guidance for holding activities accountable for coordination and collaboration efforts from the design stage.
- Create a system of robust technical assistance to ensure quality implementation
- Establish a mechanism for follow up from collaboration efforts.
- Establish a stronger environment for Collaborating, Learning, and Adapting
- Operationalize the nutrition coordination strategy in the new Country Development Coordination Strategy.

The issues from these and other authors included understanding the context sufficiently to identify the best approaches to dealing with nutrition problems and identifying the interventions appropriate to these problems. The staffing and coordination of partners is important including their capacity and understanding of the theory of change. Management and monitoring systems are important, in the service of the project. (Garrett and Natalicchio 2011, Acosta 2014, Drimie, Chakrabarty et al. 2014, Pain and Matturi 2014, Emergency Nutrition Network 2016, Harris, Nguyen et al. 2016, SPRING and Feed the Future 2016).

When considering integration or co-location it is important to define what should be integrated or co-located through the project cycle. Examples are: partnerships, planning, formative research, design of the programme, development of theory of change, funding, training, staffing, transport, research, monitoring, management, and evaluations.

ENTERPRIZE project case study

The findings of the case study are presented using a project cycle framework. At each stage the overall programme and individual components are examined for nutrition-sensitivity, appropriateness to context, sustainability with opportunities and challenges for integration.

1. Forming partnerships

The main focus of LFSP is agriculture and livelihoods with the nutrition component a smaller focus led by FAO in Zimbabwe.

WV, Farmers Association of Community Self- Help Investment Groups(FACHIG) and Mercy Corps came together as a working partnership in response to a call for proposals from the lead agency, FAO. The ENTERPRIZE programme was formed from this multi-sector partnership. WV is the nutrition and agricultural extension lead, FACHIG is responsible for mobilising and strengthening farmer groups, Mercy Corps oversees ICT extension and local market linkages, International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) provides agricultural technical support to the extension activities. The Ministry of Agriculture, Mechanisation and Irrigation Development (MAMID), Ministry of Health (MoH), and the local District Food and Nutrition Security Committee (DFNSC) are key government implementing partners. Private sector partners are many and include financial organisations, traders and those involved in input and output markets. Therefore, the partnership was multi-sectoral including NGOs, an International Agriculture Research organisation, Zimbabwean Government and the private sector.

The proposal was formulated in Harare by WV, ICRISAT, Mercy Corps and FACHIG within an established Call for Proposals by FAO. Government Partners at the District level were not involved in the design of ENTERPRIZE. Earlier involvement of District government partners and the private sector could have been useful to establish ownership of the project. The private sector partners have not so far been trained in nutrition nor been part of awareness-raising activities on nutrition.

2. Assessing need and context

Several surveys including baseline, Knowledge Attitude and Practices (KAP), barrier analysis, gender analysis and contextual analysis were carried out during the start-up phase of the project which meant that behaviour change activities were targeted to overcome real barrier and a detailed Gender Strategy was developed to guide that component.

The ENTERPRIZE proposal lists poor utilisation of food resources, limited access to diverse and quality food at the household level, especially foodstuffs high in protein and vitamin A, as the main contributors to chronic malnutrition. The prevalence of overweight, obesity and other signs of the 'double burden' were not assessed.

3. Develop Theory of change

The goal of ENTERPRIZE is 'Improved food and nutrition security of 25,500 farming families in Mount Darwin and Guruve, Zimbabwe' with the relevant Nutrition outcome 'Increased demand, production and consumption of diverse nutritious foods'.

The 4 outcomes in the proposal are:

1. Women and men farmers better able to manage farm enterprises in climate resilient ways
2. Increased demand, production and consumption of diverse nutritious foods
3. Women and men farmers better able to respond to commercial markets, traders and processors' needs
4. Evidence generated and communicated effectively to influence policies and investments (public and private)

Does the theory of change have the potential for impact on nutrition objective(s)?

The Original Theory of Change (ToC) from the LFSP (**Annex 4**) and from the ENTERPRIZE project (**Annex 5**) did not include all the relevant activities and links for nutrition. The LFSP ToC focuses only on improved availability and access to nutritious foods to improve food and nutrition security and is measured using a hunger indicator (see M&E section). The

ENTERPRIZE ToC includes many more elements related to nutrition but not a pathway of action to achieve them. Because of these limitations, a new Theory of Change was drawn out during a meeting with the ENTERPRIZE partners, (WV, Mercy Corps and FACHIG) using the pathways from agriculture to nutrition shown in **Figure 1** (SPRING 2014). The ToC developed from this discussion is shown in Annex 7. During this exercise, it became apparent that ENTERPRIZE does in fact work through most of the pathways and could be described as a nutrition-sensitive programme. **Table 2**

TABLE 1 PATHWAYS FROM AGRICULTURE TO NUTRITION IN THE ENTERPRIZE PROJECT

Pathway	ENTERPRIZE
1) agriculture and direct food consumption;	Yes, outcome 2
2) agriculture for income and used for nutrition;	Yes, outcomes 1&3 support income generation but there is less emphasis on income utilisation for nutrition
3) agriculture and food prices;	Not included explicitly
4) female agricultural labour and power;	Yes, gender empowerment in outcomes 1&3
5) female agricultural labour; childcare and feeding;	Yes, outcome 2. Infant and young child feeding practices and other behaviours through Care Group cascade training
6) female agricultural labour and women's nutritional status.	Yes, outcome 1 includes labour saving devices and practices. Conservation agriculture can save women's labour
7) Natural Resource Management and food quality	Yes, outcome 1 includes Climate Smart Agriculture and other environmentally sustainable agriculture practices are supported.
8) Building economic growth through improved nutritional status	Not considered
9) The enabling environment	Not fully considered, food market environment is not included, health, water and sanitation are not emphasised, the wider natural environment is also not included.

The income pathway depends on use of agricultural income for either food or other nutrition-enhancing purchases. The effects of production on food prices and therefore affordability could be important, through value chain activities. In their present form, however, value chains are not designed to produce affordable food for local or distant consumption. Value chains are presently aimed primarily to increase incomes. The gender pathways are strong in this project and Gender Action Learning System (GALS) is a key component that facilitates the other pathways.

The enabling environment described in Figure 1 is another area that could be explored for this programme. Food markets for purchase have not been considered as part of value chains. Natural resources are considered but only as part of agriculture; therefore, wider environmental issues, such as forests and wilderness are not considered. Health, water and sanitation are not part of proposal, apart from through BCC activities at the household level. Water supplies are not part of the proposal. Nutrition/ health knowledge and norms are considered in the BCC activities. However, consideration of indigenous food culture has not been seen as a starting point for these activities.

ARE THE THEORY OF CHANGE ASSUMPTIONS VALID?

Several assumptions were mentioned in the rationale for the programme and original logframe of activities (Annex 6): However, no plans to monitor these assumptions are included (as far as is apparent). It is important for these assumptions to be tested during monitoring or special surveys. This is a critical omission because if the assumptions are not tested then it will be difficult to interpret whether or not impact pathways hold true.

For example, it is assumed (from the project logframe Annex 6) that improved market access should provide increased access to better quality food for both the rural and urban poor. Other assumptions in the logframe that there is 'No Serious or macro-economic instability and No severe or prolonged drought (i.e. for more than one year consecutively) or major livestock disease outbreak' and that 'surplus food will be used for domestic food security'. All these assumptions need testing. In 2016 there was drought and also economic instability which are both likely to affect outcomes.

In addition, it is assumed that improved market access has the potential to improve the participation of poorer farmers in the market. The project supports production and marketing of diverse foods, but what food is available to the poor in practice?

Therefore, in theory the second programme outcome, 'Increased demand, production and consumption of diverse nutritious foods' could be achieved but only if the assumptions are true and also if the benefits of all activities meet at the level of individual child or adult. This will only be the case if targeting of different activities reaches the same households.

4. Programme Design

Details on the programme design are in **Annex 8**.

ENTERPRIZE follows the Zimbabwean national nutrition policy and fits well with the DFID nutrition strategy. Nutrition in ENTERPRIZE is divided into 'nutrition-specific' actions, those primarily designed to address the immediate causes of malnutrition and 'nutrition-sensitive' broadly designed to address the underlying and basic causes of malnutrition.

The nutrition-specific interventions being implemented are Behaviour Change Communication strategy guided by barrier analysis on important nutrition behaviours to include promotion of Infant and Young Child Feeding (IYCF), promotion of improved hygiene, promotion of improved health seeking behaviours and cooking demonstrations. This is delivered through a Care Group cascade training model.

The nutrition-sensitive interventions being implemented include a purposeful selection of nutritious value chain commodities, a gender empowerment strategy guided by gender analysis; nutrition sensitisation through ISALS (Internal Savings and Lending) to increase demand for nutritious foods; support for the District Food and Nutrition Security Committee (DFNSC) and also ward level committees; support for diversified crop production-through cascade farmer trainings; promotion of post harvesting management and processing; preservation methods.

5. Targeting

The recommendation for nutrition-sensitive targeting is to include vulnerable groups, particularly the poor and to target households in the first 1000 days, i.e. pregnant or lactating women and children under 2 years. (FAO 2013)

Targeting in ENTERPRIZE follows LFSP targeting guidelines which target B1 and B2 farmers (the middle-income range) and not the poorest or better-off farmers. The original targeting design for this group is because it is considered that these farmers have the highest potential to increase production for markets. Commodity groups aim to reach approximately 30% of the eligible population while Care Groups are targeted to first 1000 days irrespective of A-C classification. Despite the restricted targeting in the design of the project, within the targeted wards, in practice A, B and C farmers have registered, i.e. those who are poorer and also better off than the target group. The overlap in targeting of Care Groups and farmers' groups is not known, but additional monitoring will help understand this in the future.

Is the targeting appropriate for nutrition benefit?

Targeting for 1000 days is appropriate for the BCC activities but some basic nutrition training needs to reach other groups. Nutrition education is also extended to family members by house to house visits by lead mothers which is an advantage because men and mothers in law need to be convinced of the need for behaviour change.

For nutrition impact, it is important to include the poorest and the most vulnerable should be part of the project, so this is a change with possible positive impact on nutrition. Women farmers are encouraged to attend and this has happened.

Targeting for increasing the marketing potential of farmers and targeting for nutrition might represent two separate objectives so it is difficult to impact nutrition if the marketing agenda is adhered to closely. This is because the 'middle of the pack' B1, B2 farmers are the ones with the greatest potential to increase marketing but they are not the poorest.

6. Integration or co-location and coordination

ENTERPRIZE activities are co-located at the level of the district, i.e. the same districts are included in all activities. Within wards, however, not necessarily the same households are targeted for activities (see section on Targeting above).

The presence of the District Food and Nutrition Security Committee (DFNSC) facilitates coordination of activities between the different District and Ward sectors. Existing coordination meetings and structures also help coordination at all levels; other initiatives such as learning visits to other LSFP projects help communication across different consortia. 'Healthy Harvest training manual' naturally integrates agriculture and nutrition from farm to fork. The district ENTERPRIZE teams are also located together under one roof, making coordination easier.

Challenges for coordination include separate budgets for agriculture and nutrition and separate sectors particularly for donors and government. Government district nutrition activities are included in the health department and agriculture staff have not tended to consider nutrition as their problem. The structure of DFNSC is new and, so far, lacking a clear strategy while a lack of resources, and competing priorities and separate sector targets make it difficult to focus coordinated actions.

7. Implementation

There are 3 components:

1. Group Strengthening: Gender Action Learning (GALS)
2. Extension component including i) Care Groups & Behaviour Change Communication & Healthy Harvest & home gardens
ii) Farmer groups including farmer field schools, post-harvest handling, storage and food preparation
3. Market linkages (Market Development component of LFSP) including commodity groups, value chain activities and ISALS

Has the implementation of programmes been carried out according to the plans (fidelity)?

The registration of farmers and recruitment of care groups is on track but fewer farmers than anticipated have chosen to take up Value Chain activities.

It is not known from this assessment whether activities have been implemented according to the plans that are laid out in the extensive activity logframe.

Have the activities been adapted to the context (contextualisation)?

There are several examples of ways in which the programme has been adapted to the context, for example in adapted farmers training, introduction of micro-gardens. The Smart Subsidy component has been added in response to the drought and the challenges farmers are facing. The inclusion of neighbourhood men as well as women in Care Group training during home visits was an innovation recognising the importance of awareness of good practices by men.

There are several examples of adaptation, but there could be more opportunities if the monitoring data were made available to communities and more consultation between partners on ways to make changes based on the data and local opinions.

What are the potential impacts of the programme on nutrition?

Outcome data are not available to date on nutrition impacts. Communities reported several positive changes, for example, use of new food groups for children's porridge, the gender component that enables women to prioritise food for young children, improved nutrition and hygiene knowledge, improved conservation agriculture practices. Importantly, women reported that IYCF practices had improved because the conservation agriculture they now practice saves time and heavy work.

The drought is reportedly negatively affects both chronic and acute malnutrition, for example the uptake of Care Group messages, particularly consumption of diversified meals and handwashing and lack of water for the gardens and field crops

and lack of income from sales. The Market Linkages component shows mixed potential on nutrition. The value chain activities are not framed in terms of nutrition benefit and there are no specific objectives or indicators related to nutrition. Increased income has been spent on different food groups, but there is a risk of increased consumption of over refined foods.

There are still some gaps in training and activities to address the causes of malnutrition, such as health topics. Sanitation has poor coverage, respondents suggested just 36% with adequate sanitation.

What are the enablers and blockers of full implementation?

Enablers

Multi-sectoral strategies and structures in place: The Zimbabwe National Nutrition Strategy (Food and Nutrition Council Government of Zimbabwe 2014) has facilitated the coordinated work on Nutrition in ENTERPRIZE. Working across sectors for nutrition goals is a clear recommendation of the policy 'Strengthening multi-sector coordination and collaboration for integrated nutrition response' involving 6 line ministries and several other partners. This builds on the work of the Scaling Up Nutrition movement in Zimbabwe. The formation of the DFNC is part of the local governance structure with a mandate to work across sectors. Government policy on gender has helped facilitate GALS. The GALS training has come at a time when Gender is high on the agenda in Zimbabwe which means this component is aligned with policy.

Strong gender focus: The Gender component has enabled the rest of the programme to work to the advantage of nutrition and has facilitated roll out of the trainings because women have greater influence in the communities and men seem more willing to take on a broader range of tasks than before.

Effective training models: The cascade training models for AGRITEX to Lead Farmers and Health Extension to Promoters to Lead Mothers are tried and tested models and useful for widest support to the community. Without these cascading trainings, it would not be possible to reach the communities efficiently. These models do depend on very high quality training delivered by volunteers, community cohesion and good training materials if the key messages are to be delivered intact. Therefore, these volunteers need to be supported, motivated and rewarded as much as possible within the policy framework. There is a clear policy on limits to financial or in-kind support for volunteers.

Respondents appreciate the practical demonstrations of activities which are much more powerful for them than theoretical training. Field days and demonstration plots can be used for this. Another advantage is that these demonstrations are open to the entire community, whether they are eligible or registered or not.

BCC messages developed based on analysis: Training materials for BCC activities are available, barrier analysis has been carried out and there is clarity about which behaviour is targeted each month. This should mean that clear messages have a good likelihood of reaching the target audience. There are opportunities for reinforcement of the messages during ante-natal visits, for example.

Strong human resources: Another enabler is the calibre, capacity and enthusiasm of the staff, partners and communities to have a positive impact in the communities. There was an impression that all were pulling in the same direction.

Blockers

Resource and co-ordination issues around training: The Cascade training model is an enabler but also a challenge because of limited resources and sometimes poor communication between the different government and NGO partners. Training schedule clashes were an initial problem, although progress has been made to improve coordination. Sustainability requires low inputs, but effectiveness requires some support for communities to keep activities going.

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. Nor is there a plan to roll out the training with a different message each month and nor have the barriers to practice been adequately determined. Hence, it would be helpful for the AGRITEX to learn from the BCC roll out.

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, the small grains and vegetables have supply problems. This and lack of inputs and water affects the farmers' ability to plant the crops suggested by 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: Agricultural diversification is a challenge for several reasons. During the 2015/16 season, the drought made all agriculture a challenge, so diversification has been difficult as farmers concentrate on staple production.

Agriculture policy: Agricultural diversification is also challenged by maize supporting policies whereby seeds and other inputs are supported nationally.

ARE THERE ANY UNINTENDED CONSEQUENCES OF THE PROGRAMMES AS IMPLEMENTED?

'Do no harm' is one of the guiding principles of design for nutrition-sensitive agriculture (FAO 2013). All respondents were asked whether the project had resulted in any detrimental effects. No one gave any examples. However, from analysis the following areas need to be considered:

Are the value chain commodities being processed into hyper-processed foods that could lead to problems of overweight, obesity and chronic disease? How is money spent from increased income on hyper-processed foods? Several respondent mentioned purchases of sugar, biscuits and other hyper processed foods using the money earned on value chains. Possible Mitigations: The nutrition training needs to include raising awareness of the risks associated with a shift to a 'western style' diet and the potential health risks.

There is a risk that food is produced for market rather than home consumption. This was mentioned as an early concern. ENTERPRIZE includes various approaches to promote consumption, such as food fair demonstrations, supporting Care groups with pulses and GALS training. How is this being tracked? Mitigation: monitoring needs to track consumption patterns of respondents.

High input agriculture for poor farmers can be very risky particularly in times of drought when crop failure can lead to destitution. The project does support Climate Smart Agriculture and Conservation Agriculture which should build resilience, however in seeking high yields for market, farmers could be persuaded to push their yields and also get exposed to the risks of crop failure. Also, the use of herbicides in Conservation Agriculture represents a risk to soil and human health. With glyphosate recently deemed a 'probable carcinogen' its continued use should be reviewed.

Excluding the poorest farmers could leave them relatively worse-off compared to others. This may be mitigated by including positive activities for the poor in the programme.

What activities could be included for A farmers, i.e. the poorest group?

Productive Safety Nets needs to be included for this group. Conservation Agriculture is particularly useful for poor farmers due to low inputs required and the lack of need for mechanised ploughing. It would be useful for the poorest to be able to join farmers' groups for support and They can participate in IGA even if they do not have access to land, for example, poultry, garden produce, sewing, crafts, and wild foods.

Has the implementation of the programme been effective, i.e. have the activities had the planned results?

It is early to answer this question, although indications for impact are good from the testimonial of respondents. For example, there was enthusiasm for training activities and respondents reported positive changes in nutrition behaviours. However, without outcome data it is not possible to draw firm conclusions at this stage. Also, the drought has affected many possible outcomes and the overall impact of the programme.

8. Training and Capacity building activities

For the programme to have full impact on nutrition, the technical areas and implementation need to be supported with sufficient capacity.

Communities interviewed were aware of nutrition and the links between nutrition, gender, health and agriculture and ENTERPRIZE training had contributed to this knowledge. They cited many examples of these links, for example the links between work in agriculture and time and resources for child care. They also mentioned the need to grow a variety of crops to meet nutritional needs. The community leaders (lead mothers and lead farmers) were confident to pass on knowledge to the communities. Health promoters and Environmental Health Technicians (EHT) are trained in nutrition and able to roll out the BCC through Care Groups.

There are several opportunities for nutrition training across groups. GALS training is delivered to all groups, thus representing an opportunity to deliver some key nutrition messages, Food Fairs include project beneficiaries plus the entire community. The plan is to get every farming household to be able to talk about food security, nutrition and markets. A curriculum could be developed covering all topics across livelihoods, agriculture, nutrition and health which will promote harmonised messaging.

The level of staffing for nutrition, however, is probably not adequate for the scope of work to deliver the full nutrition components of the project, ensure strong integration, while balancing between stakeholder engagement and community support for implementation and monitoring. WV has 2 nutritionists only to work in all wards and levels of the organisation. At the District level nutrition expertise is also limited with the nutritionist also working in the catering department at hospital at the time of the survey due to staff shortages. The Value chain partners have no mandate to work on nutrition which means that Value Chains for Nutrition has not so far been fully explored in the project. Until the Agritex roll out nutrition components, the main opportunity for nutrition training is delivered through Care group training cascade which only reaches the targeted 1000 days' group. The DFNSC has received some nutrition training.

9. Monitoring and Evaluation (M&E)

The goal of the project is improved food and nutrition security. There is a consolidated framework for the LFSP which runs to 26 pages; and an abbreviated logframe for reference **Annex 6**. The 3 high level indicators from the original LFSP logframe are:

1. Prevalence of households with moderate or severe hunger (Household Hunger Scale – HHS)
2. Household Dietary Diversity (Household Food Consumption Score, Minimum acceptable diet)
3. Incremental value of farm output

Does the M&E framework serve the needs of the project?

There is no separate logframe solely for the ENTERPRIZE project and the M&E component is led by Coffey. Coffey Baseline surveys for the whole LFSP (i.e. including the 3 NGO consortia) have been conducted using the indicators in the Consolidated Logframe but without sufficient IYCF indicators. None of the original indicators are nutrition indicators; household hunger and household dietary diversity are considered food access indicators. A later nutrition survey was conducted specifically for ENTERPRIZE and provided data on IYCF indicators in July 2015. Stunting (chronic malnutrition) has still not been assessed to date. It is logical not to include stunting because not all causes of stunting are addressed by the programme (for example, health service strengthening and a stronger WASH component might have been necessary to prevent stunting). However, it could also be argued that stunting should be included if improving food and nutrition security is a high-level goal of the project.

The ToC pathways are still not well described and indicators available for each outcome (see ToC discussion above). A recent guideline has been published that would help the project draw together indicators appropriate for the activities of the project (Herforth and Ballard 2016).

It is not clear how the contextual indicators will be collected; such as occurrence of drought and any changes to factors that might affect outcomes. Weather data is collected by M&E staff and at farmer field school level. It is analysed locally and informs farmers, but does it fit into the overall M&E plans? Indicators related to the assumptions in the logframe (**Annex 6**) are also not apparent in the design of the M&E framework. It is also not clear what indicators are being used for the gender component.

How much effort is spent for the utility?

With 30 stakeholders, the monitoring data is an enormous undertaking. Implementation of monitoring is a burden for those collecting the data. Teams estimate that 50% of the data collected is analysed into reports of some kind, meaning that 50% is not analysed. An estimated 80% is potentially useful but not necessarily analysed. To track progress the project needs some outcome data e.g. how have diets changed but all the effort is on collecting routine activity data.

Previously the M&E effort was concentrated on process/ activity tracking but now it's moving to qualitative assessments with farmers on how they are performing. There is a plan to conduct outcome monitoring reviews using quarterly monitoring reports but these are not available to date and there has been only one season of implementation.

What kind of dissemination is there of findings from Coffey surveys, cohort studies etc. to the ENTERPRIZE partners and communities? To achieve value the data need to be used to inform communities and implementers alike.

How does the M & E plan work across a multisector programme and multiple actors?

ENTERPRIZE relies on government extension for data collection and they have resource challenges to do this. DFNSC need to carry out monitoring but don't have data management skills. There is a need to understand the overlap of activities at the level of the household but to date this has not been possible. It is necessary to work out a way to do this that is not burdensome for the implementation team. There are also challenges related to registration and group membership.

There are currently therefore shortfalls in the M&E design. The indicators for nutrition are not driven by the ToC, the context and assumption are not monitored routinely. There appears to be more routine data collected than can be analysed and there is little time for qualitative data to monitor impact of the activities. It is not clear from the data where there is overlap in activities at the household level. Finally, the dissemination of the findings of the considerable M&E effort to communities is underdeveloped.

10. Scaling up and sustainability

Administrative structures and knowledge gained by communities and implementers will likely be sustained, as least in the medium term. For example, the DFNC structure will continue and the interactions and collaboration that has developed across the sectors will be a sustainable benefit. The groups that have been formed will be a long-term structure or network in the communities: Care Groups, ISAL groups, commodity groups. Some women's groups have been formed independently of ENTERPRIZE showing that the group structure is valued and sustainable. Once farmers have made commercial links to value chains, the activity should be sustained through commercial interests and their relationships to farmers. Therefore, community strengthening and empowerment will be a lasting legacy of the project.

Training materials that are now available, such as Healthy Harvest will remain after ENTERPRIZE. Post-harvest equipment is a long-lasting benefit, such as metal silos and also labour saving technologies such as shellers and de-hullers.

The Scaling Up Nutrition movement (SUN) has produced a strategy for scaling up nutrition (Scaling Up Nutrition 2016-2020). The ENTERPRIZE programme is contributing to this in several ways, for example, by supporting the DFNC, contributing to M&E systems that can be sustained by local government. The BCC activities and system for identifying targeted behaviours through barrier analysis, if implemented by the DFNC in an on-going way will contribute to sustained nutrition. The DFNC also facilitates multi-stakeholder partnerships for coordination at district and ward levels. Tackling gender inequities, especially among women and girls and eliminate discriminatory practices is also a large part of ENTERPRIZE.

Some other areas mentioned by SUN, however could be improved in ENTERPRIZE, such as striving to involve representatives from vulnerable communities in their decision-making processes and incorporating participatory approaches to M & E. Targeting the most vulnerable is also an area that could be improved in ENTERPRIZE.

The Conservation Agriculture and Climate-Smart Agriculture will be environmentally sustainable compared to the high input alternatives, however an alternative to use of herbicides is needed to prevent contamination of crops and exposure of farmers to possibly carcinogenic chemicals. Further aspects of environmental sustainability that could be considered include management of soils, the use of agricultural inputs, the use of forest products, management of water catchments, composting and recycling of household waste and human waste. A full analysis of environmental sustainability is beyond the scope of this assignment, however.

It is early to comment on the potential for scale-up of ENTERPRIZE because results on impact are not available and it is not possible to assess cost effectiveness.

4. Discussion

Have WV and the other partners followed nutrition-sensitivity guidelines in design and implementation of programme?

Table 3 summarises a comparison with the 10 points of FAO guiding principles. The main points of deviation from the guiding principles are the targeting for the vulnerable and the marketing for nutritious foods in the value chain activities. The targeting is very important to achieve nutrition impact. It is important to support small scale farmers to improve productivity and profitability whilst protecting natural resources through soil, water and biodiversity conservation

Table 2 Summary of Nutrition-Sensitive Agriculture and Livelihoods in ENTERPRIZE

Guiding Principle	ENTERPRIZE
1. Incorporate explicit nutrition objectives and indicators into design.	Yes, some questions remain related to monitoring and high level objective for young children.
2. Assess the local context.	Yes, KAP, Nutrition, Barrier analysis, contextual analysis and other research guides design.
	No, 'Double burden' assessments.
3. Target the vulnerable and improve equity.	Poorest groups not targeted in design but in practice A groups included in some activities. Care Groups include all.
4. Collaborate and coordinate with other sectors.	Yes – through partners, government and design and implementation.
5. Maintain or improve the natural resource base, particularly soil, water resources.	Yes – CSA and CA, livestock management, drought-tolerant varieties, contour ridges etc.
	More on general environment improvement e.g. protection of forests, conservation for firewood, water management in the environment. Biodiversity protection.
6. Empower women.	Yes – GALS reports successes on decision-making, roles, priorities re farming, purchases etc. Labour saving activities and technology.
7. Facilitate production diversification, and increase production of nutrient-dense crops, and livestock.	Yes – but evidence? Small quantity of biofortified vegetables, beans, etc. Failed rainy seasons and therefore poor yield.
8. Improve processing, storage, and preservation of food.	Yes, reported solar driers, silos, hermetically sealed bags.
9. Expand market access for vulnerable groups, and expand markets for nutritious foods.	Value chain markets are not necessarily local. Needs Emphasis on input and output markets for local access of nutritious foods for nutrition benefit. What is nutritional value in the value chain?
10. Incorporate nutrition promotion and education that builds on local knowledge.	Yes, through Care Groups and this is starting with Farmers groups.

What comparisons can be made between programmes that are co-located and those that are integrated?

There are challenges to integrating a project implemented by local extension services and overseen by NGOs. ENTERPRIZE implementing partners work closely together, but the implementation by Extension services is separated by sector. The presence of the DFNSC is crucial therefore to the coordination at District and Ward levels. Through the project

cycle integration has been achieved in several ways, for example, the ENTERPRISE partners work closely together and share resources such as transport and office space although there are separate budgets. The M&E activities are designed across sectors although data are collected within sectors. Training activities could be further coordinated, such as through development of a shared curriculum.

Other similar projects face similar dilemmas, for example the Realigning Agriculture to Improve Nutrition (RAIN) project in Zambia (Pain and Matturi 2014) has faced similar challenges in coordination between Agriculture and Health sectors that are geographically different in the catchment areas. The RAIN project was different from ENTERPRISE because it was designed initially for nutrition impact whereas the ENTERPRISE programme has multiple objectives of improving production, marketing of food crops and nutrition. The RAIN project was targeted according to the 1000 days (i.e. pregnant, lactating women and children under 2). This meant that all activities were targeted only to those households and the marketing component was small. The ENTERPRISE has targeted this group only for the Care Group training and the mothers and households receiving the BCC activities might not also be included in farming activities. This may be important when it comes to impact on nutrition for the ENTERPRISE project because Care Group training will not be effective alone unless food security issues are adequately covered.

The RAIN project also worked to support a District Food and Nutrition Security Committee and this was one of the achievements of RAIN, in fact the national government used the RAIN supported district committee as a model for the whole nation. The DFNSC in the ENTERPRISE project is also proving crucial to facilitate implementation and track progress. This could prove to be a key achievement for ENTERPRISE also. In addition to the RAIN project, the ENTERPRISE programme has also benefited from strategic leadership, contextual awareness, knowledge management, capacity building. (Pain and Matturi 2014).

In seeking to make agriculture and livelihood programmes nutrition-sensitive, what are the operational opportunities and challenges that programmes face?

Recommendations from the RAIN project were that it is crucial to collect good contextual data in order to show at final evaluation why or why not the project succeeded in meeting its goals. Parameters to include are drought, inflation, cost of diet, market availability of foods. In addition, it is important for beneficiaries to know what they are entitled to from the project and encourage them to report back to the project on the delivery of services. From the case study of ENTERPRISE we could not verify whether participants were aware of their entitlements. There is an accountability system in place for beneficiaries to comment on services, but this is not structured against particular objectives.

What lessons can be drawn from practical experience?

A key consideration for nutrition-sensitive programming, as exemplified by ENTERPRISE, is to determine exactly what the programme is trying to achieve at the design stage. In this case, there are multiple objectives; if these goals are not streamlined and cohesive, the impact pathways will not be clearly mapped out and understood by implementers, thus affecting programming, and there could be a mis-match between targeting and desired outcomes. Economic and nutrition goals might be quite different. For building income and productivity, it could make sense to target middle income farmers, but for nutrition benefit the poorest need to be targeted and their access to food is as important as, or even more important than food availability. Therefore, for nutrition and income benefit the poorest groups need to be included and if farming is not an option, then other IGAs or safety nets need to be included. Increasing agricultural productivity for market should also ensure food security is improved.

The ENTERPRISE programme has made some significant and weighty assumptions, laid out in the LFSP log frame, the basis for which is unclear (see Box 2). If these assumptions are not true, the rationale underpinning the impact pathways is not valid and hence the overall impact is unlikely to be achieved. It is crucial therefore that these assumptions are tested. Similarly, the focus of monitoring is at output level and yet to date, the global evidence on the impact of nutrition-sensitive programming is limited albeit emerging, meaning that there are still unknowns. It is imperative therefore for the ENTERPRISE programme to measure outcomes and ultimately impact as soon as possible to allow for adjustments.

The ENTERPRISE programme was assessed against recommendations related to coordination of multi-sector programmes developed from the literature review (Table 3). Not all areas were explored in this brief review, but clearly several of the recommendations that were made by other programmes have been applied in ENTERPRISE.

Table 3 ENTERPRIZE and guidance on coordination of multi-sector programmes

Recommendations on multi-sector programmes. Learning from ENTERPRIZE	
Adopt a shared vocabulary and agenda.	Nutrition-sensitive programming needs to be clearly defined and understood by all stakeholders using the Theory of Change.
Design and plan for deep engagement with communities and governments.	Engagement with government and communities could be deepened to understand fully their challenges and wishes.
Break down silos within organisations and develop a new kind of development workforce.	Creativity and cooperation is fostered in ENTERPRIZE.
Take a portfolio approach for nutrition to maximize nutritional outcomes from a multi-sectoral portfolio of activities.	ENTERPRIZE includes a portfolio of different activities for nutrition impact, but not all partners are aware of the bigger picture of why activities are needed for nutrition impact.
Incorporate clear guidance for holding activities accountable for coordination and collaboration efforts from the design stage.	Coordination and collaboration are not being systematically tracked, hence we recommend an indicator for this to be added to M&E frameworks.
Create a system of robust technical assistance to ensure quality implementation.	Technical assistance on nutrition could be extended
Establish a stronger environment for Collaborating, Learning, and Adapting	This has started in ENTERPRIZE but current communication systems at the time of the field visit appeared to pass information upwards through the programme hierarchy rather than be designed for collaboration, learning and adaptation.

5. Points for learning

This section outlines learning points drawn from the findings of this assessment that are applicable to multi-sectoral programmes for nutrition.

Firstly, a guideline or checklist for the design and implementation of nutrition-sensitive programmes could be drawn up. This guide would be practical with options and decision trees dependant on the context.

Following from this a guideline for the assessment of the nutrition-sensitivity of nutrition-sensitive programmes would follow the format of the design and implementation guideline. To make this analysis manageable, a list of operational factors to be considered is necessary, rather than an open-ended broad analysis, particularly if the time for field work and reporting is very limited. This recommendation follows from the current assessment that was very broad and difficult to focus effectively in a limited time.

Forming Partnerships

- Early involvement of District government partners, community and the private sector is useful to establish ownership. Training in Nutrition helps build awareness of all partners to understand how the project aims to address nutrition and their part in the process.
- The project needs to be well led with considerations for designing jointly with all stakeholders, targets for different sectors need to be harmonised, have structures for effective ongoing planning, communication and coordination for all stakeholders.

Assessing need and context

- Understanding the context sufficiently to identify the best approaches to dealing with nutrition problems and identifying the interventions. The ENTERPRIZE programme achieved this, for example by including detailed barrier analysis for the BCC activities.

- **The existing guidelines and frameworks are useful for assessing the nutrition-sensitivity of programmes, such as the FAO guidelines (FAO 2013).** They need to be considered at the inception stage of programmes to develop a ToC, make sure all necessary components are included and targeted effectively and all the assumptions in the model are checked. For example, if dietary diversification depends on access to a range of foods in the market this needs to be assessed and any mitigation put in place.
- **The prevalence of overweight, obesity and other signs of the ‘double burden’ need to be included in assessments** prior to design if these data are available. If not at least an understanding of the issues related to the development of overweight. These emerging problems need to be taken into consideration and included in risk assessments.
- **Socio-economic analysis of malnutrition:** it would be useful to understand the socio-economic status of those with malnutrition to know which group needs to be targeted for combating malnutrition.
- **The enabling environment needs to be explored.** For ENTERPRIZE for example, food markets for purchase have not been considered as part of value chains. Natural resources are considered but only as part of agriculture; therefore, wider environmental issues, such as forests and wilderness could be considered. Health, water and sanitation, water supplies, nutrition & health knowledge and consideration of indigenous food culture could be a starting point for BCC activities.

Theory of Change, Programme design and targeting

- **It is important for the design assumptions to be tested** during monitoring or special surveys. If the assumptions are not valid then the pathways outlined in the Theory of Change may not hold true which could explain why nutritional outcomes and impact are/are not achieved.
- **Involvement of communities as well as partners in the development of ToC:** this would help to verify assumptions and open new possibilities not necessarily envisaged by project staff.
- **There is much more potential to work with Value chains.** There are ways in which to involve the poorest sectors of the community in income generating activities related to Value Chains. Ways to preserve nutritional quality and ensure local markets improve availability of nutritious foods are important. The concept of ‘Value Webs’ could be explored that consider all the inputs and outputs of value chains starting at the community level and working out to wider markets only after local markets are considered. This idea could be expanded to an analysis of the whole food system, rather than separately for each commodity.
- Awareness raising on the importance of reducing the consumption of over processed foods during training and Value Chain activities is important. For example, sensitisation about minimally processed alternatives, for example wholemeal sadza as opposed to ‘breakfast’ sadza in the context of maize- consuming populations.
- **For livelihood and agriculture programmes, safety nets are necessary for those not included.** For future programmes, the safety net component needs to be an integral part of the programme and fully funded. Efforts to address the needs of the poorest 10% are needed. These could also include various IGAs and other activities to be decided on consultation with communities.
- **The poorest groups can to be encouraged to join farmers’ groups** for support and be encouraged to participate in primary level value chains or for subsistence production. They can participate in IGA even if they do not have access to land, for example, poultry, garden produce, sowing, crafts, wild foods. In ENTERPRIZE poor farmers joined ISALS and farmers’ groups with or without involvement in Value Chains.
- **Include a Gender component** - this was much appreciated and crucial to the impact of the ENTERPRIZE programme on nutrition. Respondents’ testimonials were very favourable and promising for positive impact on nutrition through women’s empowerment.
- **Relevant targeting to achieve improvements in nutritional outcomes.** It is important to include vulnerable groups, particularly the poor and to target households in the first 1000 days, i.e. pregnant or lactating women and children under 2 years. The whole population should be targeted to reach nutrition objectives in areas with high prevalence of malnutrition or where malnutrition is spread across all socio-economic groups. Programmes will only impact positively on nutrition in practice if the benefits of the project converge at the level of individual child, therefore this needs to be considered in targeting.

If ‘middle of the pack’ farmers are targeted in ENTERPRIZE because they have the greatest potential to increase marketing but they are not the poorest, it needs to be clear whether there are any nutritional intentions related to this and if so, the pathway should be clearly mapped out and tested.

- **A multi-sector programme needs a longer implementation period than single sector programmes.** Some components need to be delivered in sequence and take time to be effective. The whole programme therefore takes longer to implement than single sector programmes. For example, a gender component works well when delivered early because changes in gender relations are necessary for women to have control over decision making. The ENTERPRIZE programme made it a priority to have GALs as a foundational training

Implementation and coordination

- **There are many ways integration and coordination can work depending on the context.** With a project, such as ENTERPRIZE, it is not possible to fully integrate because activities are being implemented by Government partners who operate in separate departments but coordination is much improved by a committee such as the DFNSC. It is important to plan for integration at project design and consider the overlaps of project components to emphasise topics that bind agriculture and nutrition together. Having said this, there are many factors that facilitate or hinder coordination of a multi-sector programme (see coordination section). Instead of thinking about full integration, one successful approach is integrated design, coordinated sector specific implementation, integrated evaluation.
- **Communities need to participate fully in every stage** from identifying their problems, aspiration and challenges to design and monitoring progress and assimilating learning. This will contribute to the sustainability of projects. For example, consider community representation at planning meetings at the District level.
- **The use of a broad approach to strengthening groups facilitates implementation.** For example, ENTERPRIZE works with farmers on determining and developing value chain enterprises. This includes GALs, local value chain mapping, financial literacy and bankable project proposal development.
- **Adapt to the context by targeting the barriers to behaviours specific to the communities.** In ENTERPRIZE the BCC activities have therefore been adapted to the reality of experiences of the targeted communities by using barrier analysis. The inclusion of neighbourhood men as well as women in Care Group training during home visits was an innovation recognising the importance of awareness of good practices by men. This mechanism could be applied to the agriculture and livelihoods training. I.e. assess the barriers and concentrate efforts on the areas that are particular for the community by rolling out the training month by month.
- **How flexible is funding?** What flexibility of funding is there to adapt to observed changes? For example, El Nino and inflation in Zimbabwe since the project started results in different priorities for communities. Can the project respond to changing contexts?

Training and Capacity building activities

- **Appropriate nutrition expertise:** If a programme aims to impact nutrition, nutrition expertise needs to be brought in for the design at the earliest stage, then progress against nutrition objectives tracked throughout. The different objectives of a complex programme need to be reconciled and any trade-offs discussed and mitigated prior to implementation. These types of discussion require a full understanding of programming for nutrition.
- **Multi-sectoral curriculum and IEC materials covering all topics across livelihoods, agriculture, nutrition and health can promote coherence:** IEC materials are generally available for the 1000 days' training. However, all groups need some basic nutrition training, so some simplified nutrition materials suitable for people outside the targeted 1000 days are needed. ENTERPRIZE also has a good and detailed manual 'Healthy Harvest' that could be developed into simplified IEC materials. This would help reinforce messages from different sectors, particularly where subjects overlap, such as gender and food purchases for nutrition benefit.
- **Develop skills on coordination, capacity to integrate nutrition and data management.** Communication, coordination skills are important for the level of coordination required. This could be a training topic in itself to boost capacity of people at all levels. In addition, data management training for those expected to collect monitoring data. At the District level to include all district officials in training to sensitise on the importance of nutrition.

Monitoring and Evaluation (M&E)

- **Link the ToC to M&E plans:** The Theory of Change should describe the ways in which the programme theoretically impacts nutrition and the pathways to impact. This should guide the M&E plans. For example, indicators of the food

environment could relate to Value Chain activities. Awareness of all partners of ToC and pathways to nutrition impact would help to create indicators of intermediate steps to outcome that are comprehensible to all.

- **Do a thorough review of monitoring data** – is each piece of data used for feedback on management, for farmers etc. Define utility of each data point. Review the data being collected and track what data is useful for different stakeholders. Not all data needs to be computerised, some is for supervision by management only and does not need to enter systems. There needs to be ownership of the M&E design by all partners.
- **Involving beneficiaries in participatory monitoring:** The community could monitor changes, have a shared vision of the project and review progress at certain points. This would help determine if activities are having an impact against objectives. Also, give feedback of surveys to community to spark interest in their progress. The monitoring and evaluation team could periodically visit communities and monitor diet changes, agriculture production changes to see progress through seasons. They would have more time for this if the amount of routine data could be reduced.
- **Monitoring data to consider what is the effect of the programme on the poor and extreme poor:** For example, it would be useful to find success stories of the A farmers who participate in ENTERPRIZE and to monitor any changes for the extreme poor through the period of implementation.
- **Co-ordination process level indicator:** It could also be possible to include a coordination process level indicator. For this to work there needs to be a clear definition of integration or coordination.
- **Monitoring needs to go beyond tracking outputs to a fuller understanding of impact** by including assessments of dietary change, knowledge, the nutrition environment or other key indicators. The collection of regular objective measures would be helpful. ENTERPRIZE has initiated this work, but it is early for results.
- **A mechanism to recognise and mitigate unintended consequences.** This requires open ended questions to all stakeholders and beneficiaries in addition to formal risk assessments.

Sustainability

- **The sustainability of a programme will depend on government structures,** so effort to support these builds sustainability.
- **Social accountability** through advocacy and support for extension work, better pro-poor strategies like social safety nets, climate smart approaches and sustainable agriculture. Engagement of communities in monitoring the project and overall service delivery starts this process.

6. Conclusions

For nutrition-sensitive agriculture and livelihoods, guidance is available. The Guiding Principles (FAO 2013) supply a useful checklist for nutrition-sensitive programmes and there are further details on how to design the investments (FAO 2015). The Conceptual Pathways between agriculture and nutrition are very useful when reviewing programmes for nutrition sensitivity. These can be referred to for determining whether the programme is optimising its impact on nutrition by maximising the potential of the relevant pathways. However, whilst the current guidance is very useful for design and evaluation, the implementation of multi-sectoral programmes for nutrition benefit has not been so well described. Guidelines on this would be useful.

The challenges of implementation have been addressed well in the ENTERPRIZE project. ENTERPRIZE has made considerable efforts to improve coordination and integration and there are many factors that have facilitated this. The capacity of staff and their enthusiasm to solve problems and coherence in a team probably accounted for the successes in implementation. Also, the prior work of sensitising the government and partners to nutrition issues, particularly the formation of the Food and Nutrition Security Committees facilitated the project.

Future programmes can learn from the experience of ENTERPRIZE and the effort to introduce 'nutrition-sensitivity' into existing and new programmes is important to address the urgent and widespread problems of malnutrition globally.



Annexes

Annex I Groups included in interviews

Organisations included in Key Informant interviews prior to case study:

1. DFID, Nutrition specialist (London)
2. Concern Worldwide, Agriculture specialist (Dublin)
3. SPRING, Nutrition specialist (USA)
4. Cornell University, Epidemiologist (USA)
5. Cornell University, Nutrition specialist (USA)
6. Independent consultant working in Nutrition (UK)
7. Independent consultant on value chains (USA)

Zimbabwe interviews

1. WV global team
2. LFSP management team - FAO
3. ENTERPRIZE management team Harare from WV, Mercy Corps and FACHIG
4. District ENTERPRIZE teams
5. District Food and Nutrition Security Committee-Guruve & Mt Darwin (DFNC)
6. Commodity committee and ISAL groups in communities (Internal Savings and Lending)
7. Community Extension workers (AGRITEX, and nurses)
8. CARE groups (lead mothers and fathers)
9. lead farmers & beneficiaries of bio-fortified crops

Annex 2 Question Guide for ENTERPRIZE case study

The areas of discussion to be directed as shown to particular groups. Questions are arranged broadly around project cycle.

1. Assessing need and context (APN, ENTERPRIZE Management, design documents)

- How was the problem and the location of the programme identified? (APN group)
- How does the project link to national nutrition plans & policies and networks (APN group)?
- What are the main nutrition problems in the defined geographical area? (Proposal & documents)
- What are existing agriculture and livelihood strategies in the defined geographical area? (Proposal & documents)
- What are the existing programmes and activities to address the problems and where are the gaps (ENTERPRIZE mgt)?
- How appropriate are the current activities to address malnutrition? (details below)
- How do farmers and other community members perceive nutrition problems? (Care and farmer groups)

2. Develop Theory of change (explicit or implicit) & M&E frameworks

- Does the project have a specific nutrition objective and do all stakeholders know and agree on it? (ENTERPRIZE mgt)
- How does the project aim to address the objectives? (ToC discussion with ENTERPRIZE mgt)
- Which of the pathways from agriculture/ livelihoods to nutrition are being emphasised in the programme? Detail a pathway to nutritional impact – (note to refer to the pathways between agriculture/ income and nutrition below) (ToC discussion with ENTERPRIZE mgt)
- What are the assumptions in the development of theory of change models (ToC discussion with ENTERPRIZE mgt)?
- What are the objectives of each of the activities and how does this link to nutrition (ToC discussion with ENTERPRIZE mgt)?
- What additional causes of malnutrition need to be covered by other sectors to achieve nutrition outcomes? (ALL)

3. Collaboration and consultation with communities & stakeholders

- Who is leading the initiative and are they able to bring all the necessary sectors together at the necessary level of seniority? (ENTERPRIZE Mgt)
- Would you describe the programme as fully integrated, collaborative, coordinated or co-located? (see chart). How does this work in practice? (ENTERPRIZE mgt & district)
- Does everyone have a clear idea of what their contribution is to the overall plan and how it links to nutrition? (ALL professionals)
- What are the systems in place to ensure communication during design, implementation and evaluation between sectors? (ALL professionals)
- What are the incentives for different partners to be involved in multi-sectoral programmes? (ALL professionals)
- How good is the coordination with local government and other stakeholders? (ALL professionals)
- Are budgets, workplans and reporting systems coordinated for the joint action or operating separately for each sector? (ENTERPRIZE mgt and district)
- Are the activities and funding mechanisms flexible – across sectors – i.e. are they changeable according to circumstances? (ENTERPRIZE mgt and district)
- How is coordination with Private sector partners organised; are there any mechanisms to periodically review progress? (ENTERPRIZE mgt, district and private sector partners)
- Are activities coordinated so they reach the same beneficiaries and in the same timeframe (i.e. beneficiaries receive all components of the programme)? (All professionals)
- How well do implementers in each sector understand why they are doing the activities? What are they contributing to the overall objectives (District professionals)?
- Examples of cost savings and efficiencies or challenges of working across sectors (District professionals)

4. Design & proposal development

- How were members of the target communities involved in the design of the programme? (APN group, ENTERPRISE mgt)
- Are the vulnerable populations including smallholder farmers, women and poor/ food- insecure households targeted? (documents)
- Does the design adhere to the guiding principles of nutrition-sensitive agriculture (see below)?
- Is there a clear gender strategy to empower women (documents)?
- Have lessons learnt from previous programmes been integrated into this programme? (ENTERPRISE mgt)

5. Carry out necessary Training and Capacity building activities

- Have nutrition capacity-development needs of implementing partners been assessed? (ENTERPRISE Mgt & district)
- Are there plans drawn up for capacity development? (ENTERPRISE Mgt & district)
- Do the parties involved know what is expected of them & have capacity to deliver? (All professionals)
- Is there sufficient capacity at each level for implementation? (All professionals)
- Are there adequate capacity-building tools available in the country or at international level that could be used? (All professionals)
- Is there training across sectors offered for implementers from each sector (i.e. agriculturalist are trained in nutrition and vice versa)? (All professionals)

6. M&E implementation & adjustment (ENTERPRISE Mgt District)

- Have indicators that measure the performance of nutrition activities been identified in the plan?
- What contextual factors are being monitored e.g. climate, terms of trade, cost of foods, policy
- Who is responsible for M and E?
- Do those responsible for collecting data have sufficient capacity to do so?
- Have monitoring and evaluation plans cross the sectors been implemented
- How are gender-related issues included in M&E
- What are the processes for planning across the sectors in an on-going way?
- Delivery of project at the beneficiary level – i.e. are people getting the services they are supposed to get & the timing, and the quantity?
- How can beneficiaries to report back on delivery of services

7. Scaling up and funding (ENTERPRISE Mgt, District, APN group)

- Do you think this programme is scalable and replicable (why / why not)?
- Do you think the programme is sustainable (why/ why not)?

8. Implementation of activities (directed as indicate)

- What have been the opportunities, and challenges to implementation of multi-sector programmes? (APN group, ENTERPRISE Mgt)
- How easy is it to coordination this project with other sectors at the District level? (District ENTERPRISE, Extension, FNC)
- Have there been any unforeseen effects of the project? (APN group, ENTERPRISE Mgt)

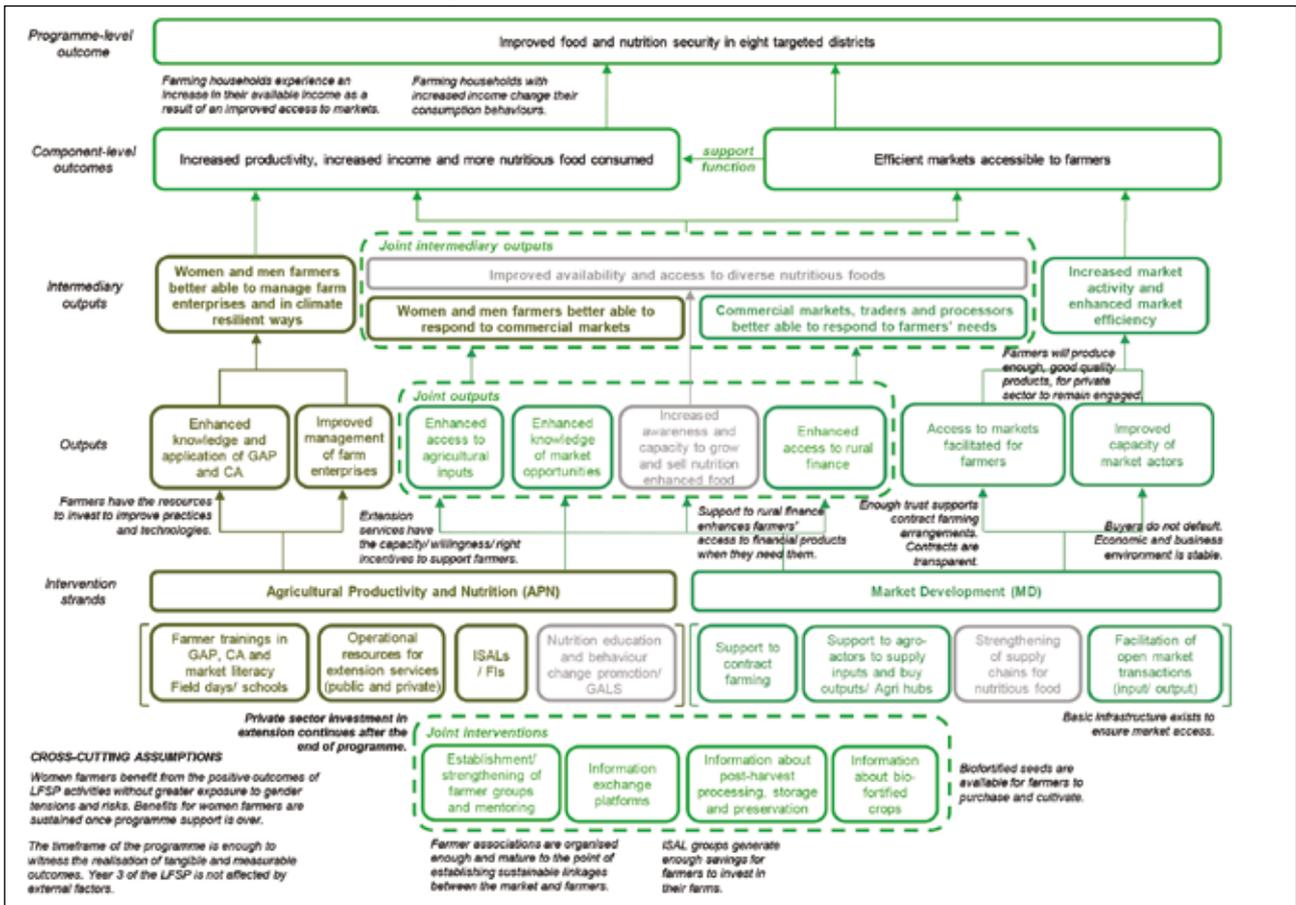
9. Implementation of activities (directed to people working on each component)

- What is your role in this project?
- How has the designed targeting worked out in practice? I.e. which farmers have been targeted and does this create any problems or opportunities?
- Do the beneficiaries know what they are supposed to get; when; How much and when are, they supposed to get it (Care groups and Farmers groups)
- How effective are the current activities to achieve expected outcomes?
- How sustainable are the current activities -i.e. will they continue after the end of the programme?
- Have there been any unforeseen consequences of the activities?
- What are the mechanisms for communities to feedback to implementers to improve the programme?
- Are there regular learning and review sessions across different implementers and communities to adjust activities as necessary following experience gained during implementation?
- Please give examples of how the programme has changed to take into consideration community feedback or monitoring data
- Has the programme been implemented according to the original design? If not what has changed?
- How are beneficiaries or activities linked to nutrition-specific activities including WASH and health services?

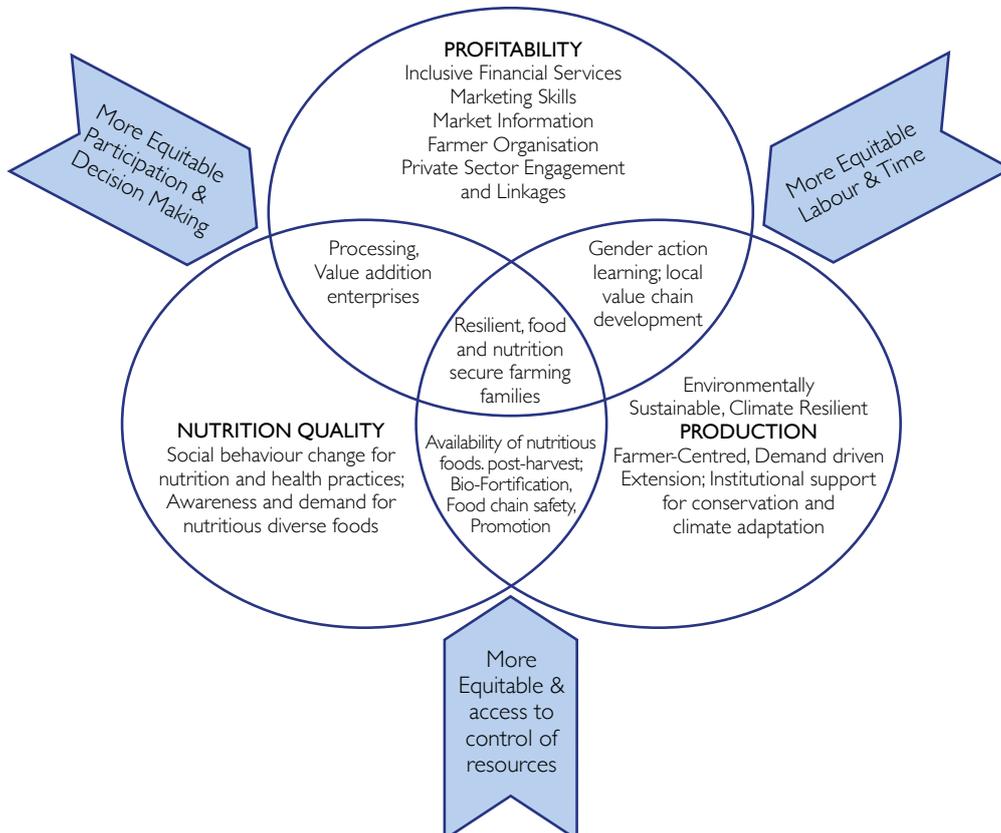
10. Perspectives of Communities (Care groups & Farmer group FGD)

- Are you aware of the ENTERPRIZE project & what you are due to receive from it?
- What trainings or other benefits have you received from the ENTERPRIZE project?
- Have you had advice from Extension or Health Volunteers or others attached to the project?
- Has your agricultural production increased or decreased?
- Are you growing any new crops? Have you stopped growing any crops?
- Have you sold more of your total production than before? Which crops?
- Are you cooking or processing foods in any new ways that you have learnt?
- Would you say your income has increase/ decreased since this project started?
- What has this enabled you to purchase?
- Has the food you give your young children changed since the start of this project?
- How has the project affected the time you have available to care for your children?
- Do you find yourself more or less exhausted from your work since you started this project?
- Have you started using any new technologies? Have you found them helpful?
- Do you have any particular challenges in keeping your children well-nourished and healthy?
- Do you see any other benefits from this project for yourself, your family or your community?
- Have there been any unwelcome changes from this project for yourself, family or your community?

Annex 3 Theory of Change for LFSP, Coffey Baseline survey



Annex 4 Theory of change (ENTERPRIZE)



Annex 5 Programme Logframe: Outcome indicators and assumptions

Zimbabwe Livelihoods and Food Security Programme (LFSP) Agricultural Productivity and Nutrition Component (APN), edited by the author to include only outcome indicators and remove all the activities. This was done in the interests of space (the original document is 20+ pages).

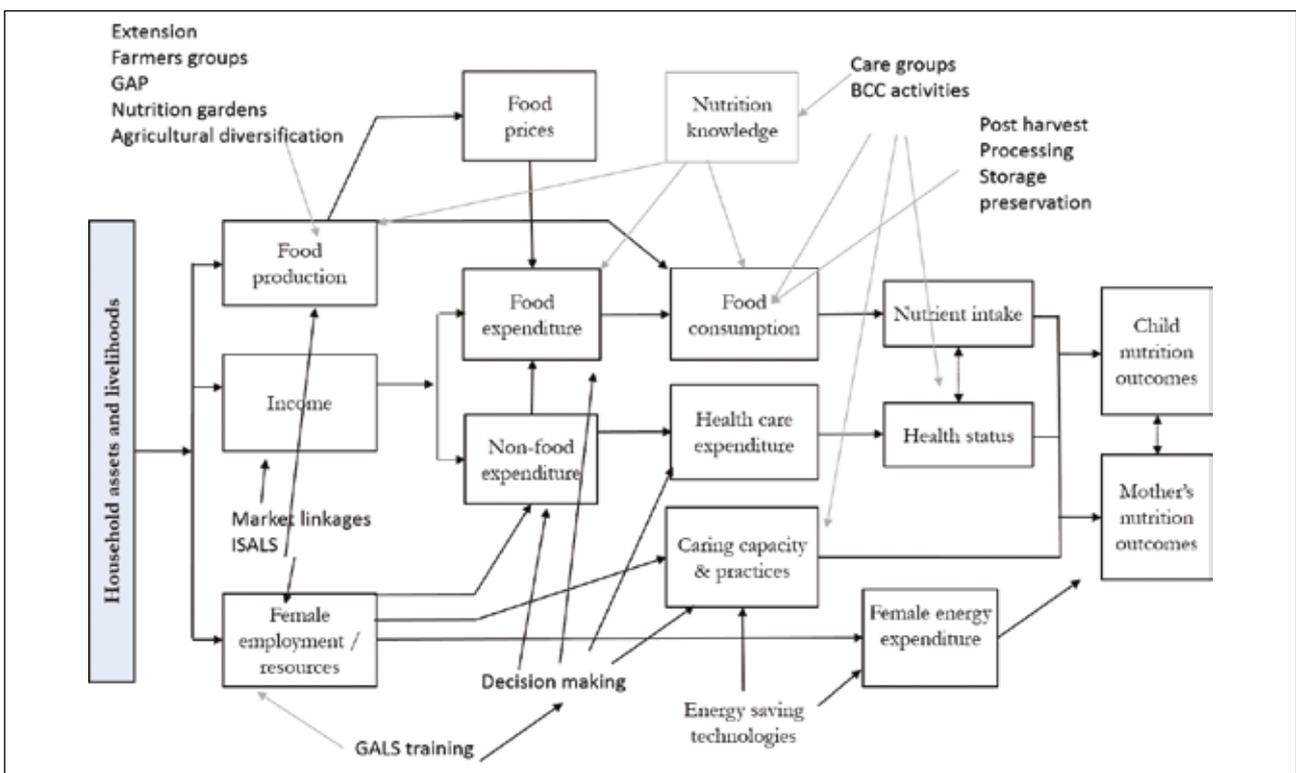
Abbreviated Revised and consolidated Logical Framework

Goal	Indicator	Assumptions
Improved food and nutrition security	<p>Prevalence of households with moderate or severe hunger (Household Hunger Scale – HHS)</p> <p>Household Dietary Diversity (Household Food Consumption Score, Minimum acceptable diet (MAD))</p> <p>Incremental value of farm output</p>	<ul style="list-style-type: none"> • No Serious or macro-economic instability • No severe or prolonged drought (i.e. for more than one year consecutively) or major livestock disease outbreak. Surplus food will be used for domestic food security
Outcome 1	Indicator	Assumptions
Women and men farmers better able to manage farm enterprises and in climate resilient ways	<p>Proportion of households applying new technologies or management practices</p> <p>Proportion of farmers who use financial services (savings, agricultural credit, and /or agricultural insurance)</p> <p>Agricultural Production per unit of land, kilogram of animal selected product</p> <p>Farming systems diversification Index</p>	<ul style="list-style-type: none"> • Smallholder farmers are capable of increased productivity & willing to work collectively • No severe or prolonged drought (i.e. for more than one year consecutively) or major livestock disease outbreak. Surplus food will be used for domestic food security • Continued macro-economic stability (multi-currency, interest rate, inflation) • Men are responsive to the activities aimed at stimulating their engagement in ISALs • No serious political or macro-economic stability • Farmers are able and willing to invest in production • The FSDI to be available in time to measure programme activities from the start
Outcome 2	Indicator	Assumptions
Increased demand, production and consumption of diverse nutritious foods	<p>Proportion of households purchasing nutritious foods (including bio fortified products)</p> <p>Proportion of households producing diverse nutritious foods (including bio fortified crops)</p> <p>Proportion of households practicing positive nutrition behaviours (diversified consumption, exclusive breastfeeding, improved WASH)</p>	<ul style="list-style-type: none"> • Market responds with adequate supply of affordable and nutritious foods • Value chain actors willing to participate in bio-fortification and seed material is available on the market • Households willing to participate in nutritious foods production and consumption initiatives/ training

Outcome 3	Indicator	Assumptions
Women and men farmers better able to respond to commercial markets, traders and processors needs.	Number of farmers linked to the markets including through open market and contract farming. Number of farmers marketing agricultural produce and products.	<ul style="list-style-type: none"> Value chain actors willing to participate in marketing arrangements with farmers. Socio-economic conditions are conducive to investment in improved farm inputs by farmers. Socio-economic conditions are conducive to market oriented production.

Outcome 4	Indicator	Assumptions
Evidence generated and communicated effectively to influence policies and investments (public and private)	Number of policy discussions and dialogues (formal and informal) conducted. Cumulative no times LFSP evidence explicitly referred to in key stakeholder programmatic strategies/ policies, publications, statements and speeches. Number of meetings/policy discussion fora/workshops conducted.	<p>Political will exists or is generated by evidence to change policies to improve food and nutrition security.</p> <ul style="list-style-type: none"> Media willing to cooperate and publicize the evidence from the programme. Political will exists or is generated by evidence to change policies to improve food and nutrition security. Political will exists or is generated by evidence to change policies to improve food and nutrition security.

Annex 6 ENTERPRIZE Theory of Change (partners' discussion)



Annex 7 Summary description of Individual Components of ENTERPRIZE

In this section, each of the 3 main components of ENTERPRIZE are described using programme documents and also information supplied by respondents during the case study research.

1) Group Strengthening: Gender Action Learning (GALS)

The LFSP logframe (Annex 6) does not include any specific outcomes from the Gender component of the programme. However, ENTERPRIZE has developed a gender analysis and strategy and clear plans for rolling out the Gender component using the GALS tool. This is part of group strengthening

GALS is a training tool for household planning

Group strengthening also includes the formation of the groups in the communities,

2) Extension Component

This is linked to outcome 1 'Women and men farmers better able to manage farm enterprises and in climate resilient ways' and outcome 2: Increased demand, production and consumption of diverse nutritious foods. There are 3 outcome indicators closely related to nutrition:

- Proportion of households purchasing nutritious foods (including bio fortified products); with the assumption that Market responds with adequate supply of affordable and nutritious foods
- Proportion of households producing diverse nutritious foods (including bio fortified crops) with the assumption that Value chain actors willing to participate in bio-fortification and seed material is available on the market
- Proportion of households practicing positive nutrition behaviors (diversified consumption, exclusive breastfeeding, improved WASH) with the assumption that Households willing to participate in nutritious foods production and consumption initiatives/training

Each outcome is related to various training activities delivered through the extension system plus the value chain activities.

2.1 Care groups & Behaviour Change Communication & Healthy Harvest & home gardens

This component is led by WV and overseen by FAO. The Care group model approach is based on TOPs care group manual 2014. Behaviours to target in BCC activities were identified through a Barrier Analysis special survey. The behaviours are rolled out through the cascade training at the rate of one per month. The targeted behaviours were:

1. Exclusive breastfeeding for mothers of children 4-9 months
2. Meal frequency for mothers of children 9-23 months
3. Food variety for mothers of children 9-23 months
4. Hand washing with soap or ash for mothers of children less than 5 years
5. Food Preservation

The training cascade starts with training of professionals at Health Clinics including nurses and Environmental Health Technicians. These professionals train VHW (promoters) who in turn train lead mothers who are responsible for rolling out the training to neighbourhood women and men.

7 Farmer groups including Farmer field schools, Post-harvest handling, storage and food preparation

Activities planned:

Cascade training using Extension staff in a 2-year cascade model. This cascade training is illustrated in Annex 8 for Gurube and Mount Darwin where the arrangements are different.

There are several points of contact between ENTERPRIZE and farmers:

- Mobile based systems- through the ECOFARMER mobile platform
- Farmer field schools
- Crop and livestock demonstrations, as relevant per context
- Lead farmer / peer trainer approach
- Private sector linkages (aligned to market development)

Training topics include:

- Farming as a Business (FaaB)
- Conservation Agriculture
- Production of Groundnut, Sugar beans, Soya beans, Cowpeas, Sorghum
- Cattle and goat and poultry production and management
- Post-Harvest Handling & processing

2 Market linkages (Market Development component of LFSP) including commodity groups, value chain activities and ISALS

LFSP lead for the Market component is Palladium. This component in ENTERPRIZE is led by Mercy Corps and FACHIG. These activities are related to outcome 3 'Women and men farmers better able to respond to commercial markets, traders and processors needs.' and include:

- trainings on Farming as Business, promoting bulking and marketing of produce to markets and analysis of existing and new value chains by farmers and stakeholders involved. Farmers are linked to mobile enabled extension services as well as local extension agents to access reliable up-to-date market information suiting their value chains.
- Farmers are also encouraged to form Internal Savings and Loans Groups (ISALs), with trainings at extension and farmer level on product scoping, bankable project proposal development, entrepreneurship, financial literacy and Savings and Credit Cooperatives (SACCO) operations among others. The saving groups will then be linked to suitable financial institutions to facilitate access to funding for group and household level projects. ISAL is based on rural financing approach that is delivered by FACHIG. The ISAL approach is key to the Value Chains
- Commodity groups are formed around specific value chain training e.g. goat production, sesame production, groundnuts, beans, mang bean, sugar bean, soya bean and marketing cuts across most commodity groups
- There are many different banks, private sector partners working with farmers to link to input and output markets.
- As per most recent reports, 635 people out of a target of 1100 were participating in ISALS

SMART Subsidy Component

Came about by the need to enhance sustainability. It was to promote labour saving technology, shelling, ridgers, preventing aflatoxins in groundnuts, water pumps for nutrition gardens, hermetic bags for grain storage, energy saving stoves. Energy saving stoves was learnt from INSPIRE project – good to save time for women and for conserving the environment. Farmers purchase their own implements with assistance from the project. Promoting local agro dealers in stocking what is required by farmers and linking farmers with the agro dealers.

Annex 8 Scoring system to rank Value Chains

Pro-poor	Number of B farmers employed / engaged in the value chain Severity of poverty (\$/day) facing those engaged / employed in the subsector
Pro-growth	Previous growth / access trajectory for sub sector Forecast for improved growth / access in the next 5 - 10 years Ability for B farmers to access growth opportunities or improved services Level of competitiveness Current level of investment Attractiveness to potential investors Likelihood of economic growth / service access being genuinely pro-poor
Feasible	Conduciveness of political economy (e.g. absence of conflicts, barriers to reform etc.) Availability of market player drivers with leverage Prospects for attracting more players or services Level of donor activity and / or distortion present in the sector Willingness of market players to change business model / adopt new practice Sufficiency of programme resources to instigate change (two years remaining)
Other	Conduciveness to the increased participation of women and youth Nutritional value of the produce Potential for household consumption Potential for climate smart production Potential for contract farming

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World Vision UK
World Vision House, Opal Drive,
Fox Milne, Milton Keynes, MK15 0ZR

World Vision UK – London office
11 Belgrave Road,
London, SW1V 1RB

NutritionWorks
112 Long Ashton Road,
Long Ashton, Bristol BS41 9LS

www.worldvision.org.uk

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