

JOINT PROGRAMMES FOR FOOD SECURITY AND NUTRITION



A qualitative review of agricultural programming for nutrition among the Millennium Development Goals Achievement Fund joint programmes

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FOREWORD

In April of 2013, the Government of Spain hosted a high-level meeting in which representatives from governments, the United Nations and international experts in the fight against hunger, malnutrition and food insecurity discussed what has been done, what is being done, and what could be done in the future to eliminate two of the world's largest burdens: poverty and hunger.

Since the Millennium Development Goals (MDGs) were adopted, Spain has demonstrated a strong political commitment to them, placing them at the center of its development policy. In this regard, Spain signed an agreement with UNDP on behalf of other UN agencies, which created the MDG Achievement Fund (MDG-F). This commitment remains strong, and Spain is actively participating in the global debate on the post-2015 agenda, offering its extensive experience in the area of cooperation. The fight against hunger must continue to be included as a priority for development policy.

This document is the product of the joint efforts of the MDG-F and UNICEF to generate knowledge and provide evidence-based solutions for how to take a comprehensive look at the problem of malnutrition and food insecurity. The MDG-F's experience is an innovative effort of the UN system to promote integrated solutions to food insecurity and malnutrition. By bringing together the expertise of various UN agencies, the MDG-F programmes have put in place multisectoral approaches that include important issues such as nutritional education, equality and empowerment of women, agricultural production and health issues, among others.

I want to thank the authors, as well as the Secretariat of the MDG Achievement Fund and UNICEF's Nutrition Section, for their leadership on this publication and for their valuable contribution to future development agendas. The fight against poverty is one of the greatest challenges of our time, one for which we must be more united than ever. In short, we face an enormous challenge that demands the commitment and effort of all of us.

Gonzalo Robles
Secretary-General for International Development Cooperation, Spain

PREFACE

The Millennium Development Goals Achievement Fund (MDG-F, www.mdgfund.org), established in 2007 through an agreement between the government of Spain and UNDP on behalf of the United Nations system, is one of the largest and most comprehensive development cooperation mechanisms devised to support MDG attainment. Through its 130 joint programmes in 50 countries and eight different thematic areas, the MDG-F has gathered valuable and unique knowledge on how countries can advance their development goals through joint efforts that engage different UN agencies, governmental institutions, the private sector, communities and civil society entities.

The MDG-F's approach, anchored in the principles of national ownership, the coordination of efforts by UN agencies and a multidimensional perspective in its development programmes, has proved to have an impact on people's lives throughout the world. Some indicators validate this: 190,000 people received job training; 540,000 people accessed safe, affordable drinking water; 625,000 women and girls gained access to violence prevention and protection services; 1.6 million children have benefitted from nutrition interventions; and 14.3 million young people were helped by new youth employment laws.

The Children, Food Security and Nutrition thematic area was the largest of the MDG-F and received over US\$135 million to support 24 joint programmes, implemented through the collaboration of several UN agencies (UNICEF, FAO, WFP, PAHO/WHO, UNDP, ILO, UNIDO, UNESCO, UNFPA, UNODC and IOM). This significant investment in child nutrition reflects the MDG-F's recognition of the critical importance of child nutrition to attaining the MDGs. As this paper describes, the joint programmes each included a broad range of interventions, including agricultural activities, in settings with very different epidemiological and ecological contexts.

The scope and innovation of the MDG-F joint programmes in food security and nutrition have provided several opportunities to generate knowledge and share the lessons learned. These lessons are especially relevant in the current context, in which the global development agenda post-2015 is being created. It is hoped that the rich and varied experience of the MDG Fund's work will contribute to improved and more equitable programming for food and nutrition security in the post-2015 era.

MDG Achievement Fund Secretariat

SUMMARY

The Millennium Development Goals Achievement Fund (MDG-F) supports 24 joint programmes in the Children, Food Security and Nutrition thematic area, in four regions. These multisectoral joint programmes purposefully bring together multiple United Nations agencies to jointly implement a broad range of interventions to address food security and nutrition.

The MDG-F experience comes at a time of heightened interest in nutrition. There is now increasing awareness of the important role the agricultural sector has to play in reaching nutrition goals. Furthermore, there is emerging consensus as to the principles by which to guide action to leverage agriculture to maximize its impact on nutritional outcomes.

This review focuses on nutrition-sensitive agricultural activities among the MDG-F joint programmes. The specific objectives of this paper are to 1) provide policymakers and practitioners with an overview of the MDG-F joint programmes and how they integrated agricultural and nutrition-specific interventions, 2) determine the extent to which joint programmes' designs incorporated the principles embodied in the 'Synthesis of Guiding Principles on Agriculture Programming for Nutrition', 3) discuss the challenges and lessons learned from the MDG-F's experience in incorporating agricultural programming in joint programmes, and 4) make recommendations for the design for future joint programmes that integrate food security and nutrition in order to better synergize agriculture and nutrition activities.

Based on this qualitative analysis of the joint programme designs, it is evident that the model of joint programming for food security and nutrition readily incorporates several best practices for improved nutrition-sensitive agriculture programming. In particular, this joint programme model was strong in building a supportive environment for nutrition and specific planning principles around establishing nutrition objectives, conducting a situational analysis, targeting vulnerable populations and strengthening multisectoral coordination mechanisms. The joint programmes all supported women's empowerment and incorporated nutrition education. In terms of programme activities, the main agriculture interventions implemented by the MDG-F joint programmes related to diversification of production for improved food access, focusing on horticultural activities.

This joint programme approach to food security and nutrition seems to offer great potential to promote agriculture and nutrition synergies. The MDG-F experience, on a large scale and in varied settings, offers policymakers and programme implementers a foundation from which to design future joint programmes that better link agriculture and nutrition and apply the best practices of agriculture programming for nutrition. The challenges, lessons learned and recommendations for future joint programmes incorporating nutrition-agriculture synergies are presented.





INTRODUCTION

The MDG-F committed to support joint programming for food security and nutrition as a means to accelerate progress towards the Millennium Development Goals. The 24 Children, Food Security and Nutrition joint programmes represented an innovative and progressive attempt to bring together multiple sectors and multiple stakeholders through new mechanisms to improve food security and nutrition. Existing across the Americas, Asia, Africa and Eastern Europe, the multisectoral programmes varied in complexity and scope, responding to the situational needs and the underlying determinants of undernutrition in both food-secure and food-insecure contexts.

The MDG-F experience comes at an opportune time – not only is there unprecedented global commitment to nutrition, but there is growing consensus that both nutrition-specific interventions and nutrition-sensitive approaches are *jointly* needed to bring about improvements in the nutritional status of populations (*Annex 1*). In particular, there has been increased attention to and interest in improving the synergies between agriculture and nutrition. The agricultural sector has a key role to play in improving the livelihoods of the vulnerable through provision of food and income. A landmark 2011 conference, ‘Leveraging Agriculture for Improving Nutrition & Health’ (IFPRI, 2012), brought together multiple sectors and a diverse audience, ranging from politicians to practitioners and academics, and triggered the debate on how to reposition the agricultural sector to improve nutrition and how improved nutrition could

also lead to better agricultural outcomes (Fan & Pandya-Lorch, 2012).

The pathways linking agriculture and nutrition are complex:¹ several frameworks have been put forward to describe the linkages, to identify key areas of integration and to address possible applications for multisectoral collaboration to enhance agriculture-nutrition synergies.² These frameworks highlight the diversity of the potential pathways linking agriculture to nutrition (*Box 1*). Central to these pathways are women: Women’s empowerment is critical for transforming agriculture inputs and outputs to nutrition impact (*Box 2*).

From the programmatic perspective, the interest in leveraging agriculture to maximize nutrition impact has prompted development institutions to consider how

BOX 1 Pathways linking agriculture to nutrition outcomes

- Empowerment of women agriculturists as key change agents in improving household food security and nutrition outcomes
- Household availability of and access to food from increased food production, affecting household consumption of nutrients
- Household income from wages earned by agricultural workers and/or the sale of agricultural commodities
- Real price changes affecting purchasing power of net buyers, income of net sellers and household budget allocation (food and non-food purchases)
- Agriculture sector growth, affecting macroeconomic growth and national income, with poverty alleviation and improved nutrition outcomes

Adapted from Ruel & Alderman, 2013; World Bank, 2008.

BOX 2 Women's empowerment: women at the nexus of agriculture and nutrition

Women are at the centre of nutrition-specific and nutrition-sensitive approaches, and critical in translating agriculture inputs and outputs to nutrition impact. As

women play multiple roles, it is essential to consider the trade-offs between different roles and take into account the enabling and limiting factors differentially affecting men and women in agricultural development for nutrition. This is critical because women in their role as caregivers directly influence the nutritional status of their children in the critical window between pregnancy and age 2 years.

Pathways linking women and agriculture to nutrition include:

- Women's empowerment, through
 - Increasing women's participation in agriculture, such as through community and home gardens, affecting their access to, or control over, food, resources and assets
 - Increasing women's decision-making power with respect to intra-household allocation of food, health and care
 - Increasing women's social status by participation in community support groups

- Women's time allocation, through balancing between time spent working in agriculture (income-generating activities) and time spent on caregiving, household work and leisure
- Women's health and nutritional status, through
 - Affecting exposure to agriculture-associated diseases
 - Increasing nutritional requirements because of increased energy expenditure from agricultural work
 - Affecting work productivity and income, as a result of their own nutritional status

MDG-F food security and nutrition programmes used various strategies to empower women:

- Support of the implementation of national gender equality legal frameworks
- Support of legal and policy change for gender equality
- Support of gender-sensitive data collection and analysis
- Capacity development for women's organizations
- Support of strategic and participatory communications to challenge negative gender stereotypes
- Support of partnerships with networks of gender equality advocates of community support organizations

Adapted from Ruel & Alderman, 2013; World Bank, 2008.

best to implement the linkages in programmes. Several guidance documents have been produced for linking agriculture and nutrition, and there is emerging consensus on the best practices to achieve nutrition-sensitive agriculture. Commissioned by the Food and Agriculture Organization of the United Nations (FAO), the *Synthesis of Guiding Principles on Agriculture Programming for Nutrition* consolidates and reviews the recommendations from an exhaustive review of this literature.

The MDG-F, with its diverse experiences in different settings, offers the opportunity to learn about joint programming for nutrition-sensitive agriculture. This paper sets out to examine, applying the framework outlined in the *Synthesis of Guiding Principles on Agriculture Programming for Nutrition*, the extent to which joint programme designs incorporated best practices for agriculture programming for nutrition. In doing so, it explores the potential of the MDG-F joint programming for food security and nutrition model to promote nutrition-sensitive agriculture and capitalize on the potential synergies. Furthermore, this analysis can add to the knowledge base by reaffirming and strengthening the proposed agricultural programming principles.

The paper is structured as follows:

- **Chapter 1** introduces the guiding principles on agriculture programming for nutrition, which have been synthesized following an extensive review of guidance emanating from development institutions and inter-agency United Nations bodies. The methodology for applying the guiding principles to assess and analyse the MDG-F joint programmes is described.
- **Chapter 2** presents an overview of the MDG-F joint programmes in the Children, Food Security and Nutrition thematic area.
- **Chapter 3** presents the results of the analysis of joint programme designs and the extent to which the guiding principles were incorporated.
- **Chapter 4** synthesizes the key findings, as well as the lessons learned from the MDG-F experience. It concludes with some general recommendations for enhancing agriculture-nutrition synergies in future joint programmes.



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Guiding principles on agriculture programming for nutrition

The *Synthesis of Guiding Principles on Agriculture Programming for Nutrition* was published by FAO in February 2013. This work involved a focused literature review and consultative process to elicit the best practices of agriculture programming for nutrition. The comprehensive review included guidance, institutional strategies and other publications released by international development institutions and United Nations agencies linking agriculture and nutrition. An interesting overarching finding from this review was the degree of alignment across different agencies and institutions on the key messages on maximizing nutrition impact through agriculture. This has helped to identify areas of consensus on key principles for improving nutrition through agriculture actions.³

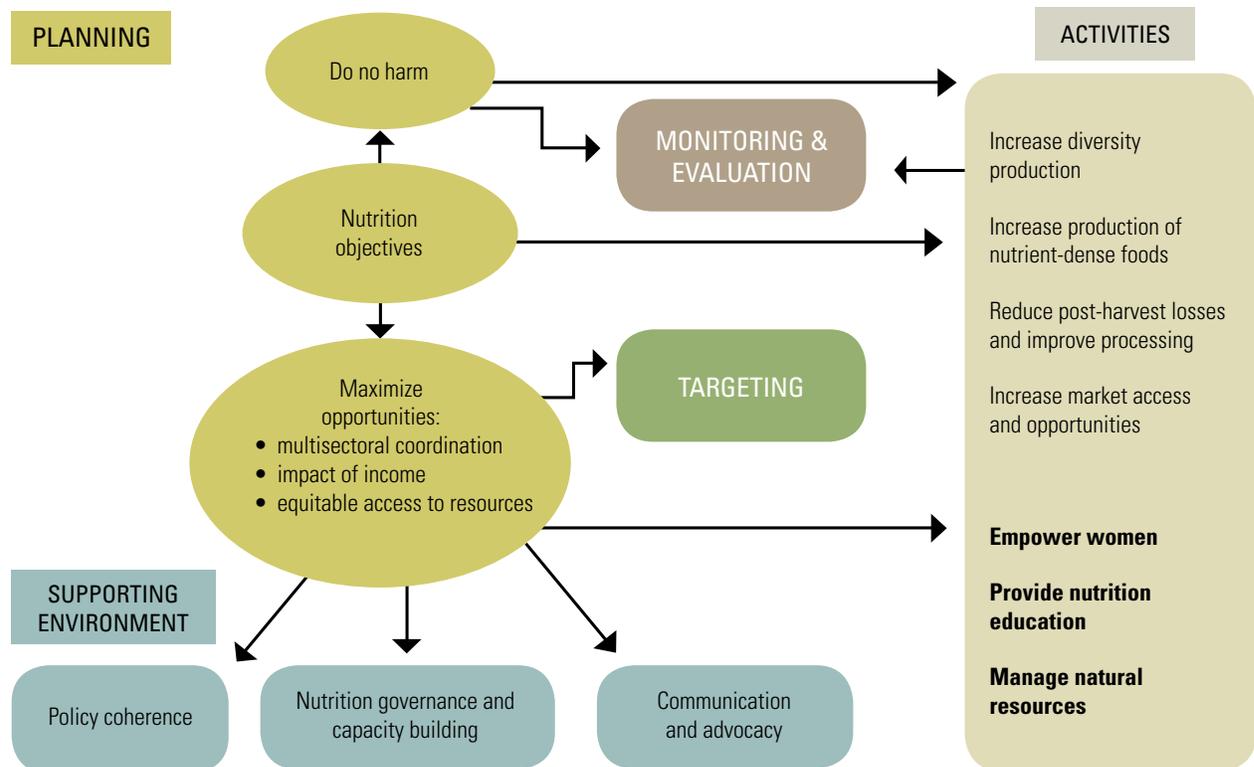
In brief, 20 key themes or principles were identified as best practices for maximizing nutrition outcomes from agriculture programming (*Annex 2*). These were classified into three categories: 'Planning for nutrition', 'Taking action' and 'Generating a supportive environment'. This was used to develop a conceptual framework (*Figure 1*).

Applying the guiding principles to an analysis of the MDG-F experience

In order to assess how well the MDG joint programmes incorporated the guiding principles in the programme designs, 20 criteria were developed, using the categories of planning, activities and supporting environment (*Annex 3*).

In the **planning** category, the joint programmes were assessed on the extent to which they assessed the

FIGURE 1
Conceptual framework for guiding principles on agriculture programming for nutrition



Adapted from FAO, 2013.

context, had clear nutrition objectives that were consistent with the countries' outcome indicators, maximized opportunities to synergize agriculture-nutrition linkages through multisectoral coordination, maximized the impact of household income, increased access to resources, developed monitoring and evaluation strategies for the programmes' improvement and chose appropriate target groups with respect to the programme's goal.

Regarding **activities**, the joint programmes were assessed by the extent to which the interventions empowered women, incorporated nutrition education and managed natural resources. In addition, specific activities that integrated agricultural and nutritional activities were analyzed.

With respect to creation of a **supporting environment**, the joint programmes were assessed on whether they had contributed to the establishment of coherent nutrition-sensitive agriculture policies, contributed to capacity building, improved governance for nutrition, and contributed to communication and advocacy to raise awareness from government to community levels on the importance of leveraging agriculture to improve nutrition in the population.

Methods

A qualitative review of programme documents for each of the 24 joint programmes of the MDG-F Children, Food Security and Nutrition thematic area was conducted.⁴ During this systematic assessment, each joint programme design was examined based on predefined criteria, and additional information on specific agricultural activities was also collated. The information was recorded in a database and then analysed.

It is important to state the limitations and constraints of this analysis. First, the 20 guiding principles were adapted to define criteria for this analysis, and therefore were used in a way for which they were not necessarily designed. This modification may have introduced systematic errors; in order to minimize this, the analysis was verified independently and any inconsistencies were reviewed before finalizing each

data point. Some specific issues are further detailed in Annex 3.

Second, the MDG-F joint programmes had varied scopes and designs, which combined several policy and programmatic interventions and did not solely focus on nutrition-sensitive agriculture programming. Therefore, caution must be exercised when interpreting the results, especially the scores of individual joint programmes, as they were evaluated using a metric relating to only one dimension of their activities.

Third, the quality of the documentation available to assess agriculture and nutrition linkages was variable. Therefore, there may have been instances in which criteria might have been met but were not explicitly stated in the programme documentation and therefore not accurately assessed in this analysis.

Fourth, and importantly, this analysis focused on the designs of the joint programmes. At the time of this analysis, final evaluations were not yet available. Therefore, this assessment does not examine the impact of applying the guiding principles or different agriculture-nutrition activities on intermediate or nutrition outcomes, but rather focuses on the extent to which guiding principles were incorporated into the joint programme designs.



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MDG-F EXPERIENCE IN JOINT PROGRAMMING FOR FOOD SECURITY AND NUTRITION

To give some context to the analysis, this chapter presents an overview of the joint programmes in the Children, Food Security and Nutrition thematic area of the MDG-F. ‘Delivering as one’, different United Nations agencies came together to plan, implement and evaluate joint programmes (*Box 3*) with national counterparts and other partners. Details of the MDG-F joint programme model and individual joint programmes are available at www.mdgfund.org.

The 24 joint programmes were very varied in their activities and focus, reflecting their different contexts in terms of national development; food security; political stability; and agricultural, health and nutrition policies and programmes (*Box 4*). Despite this obvious variation, joint programmes shared common principles:

- All joint programmes used a strategic mix of nutrition-specific and nutrition-sensitive strategies to address nutrition security.
- Joint programmes worked both ‘horizontally’ and ‘vertically’. Working horizontally, they promoted multisectoral coordination and intersectoral collaboration – this took advantage of the comparative strengths of the different United Nations agencies, bringing with them the different line ministries for joint planning and implementation. Agricultural activities were predominantly led by FAO, which was a signatory in 22 of the 24 joint programmes.⁵ Working vertically, they extended from the national level to regional and district levels, ensuring that policies and programmes were implemented and delivered to the target populations.
- Joint programmes concurrently worked ‘upstream’ at the policy level and legislation level, advocating for food security and nutrition, providing technical input for the development of national policies and planning, and supporting the adoption of such

policies, as well as 'downstream', to build national capacity to deliver evidence-based programme interventions.

- All joint programmes took an equity-based approach, focusing on vulnerable families with children under 5 years of age, with some also focusing on pregnant women. This focus reflects the critical period of vulnerability from pregnancy to the age of 2 years, during which nutrition security must be assured to prevent irreversible consequences for child development.

BOX 3 Joint programmes

A joint programme is a set of activities contained in a common work plan and budget that is implemented by a government and/or other partners with the support of two or more United Nations agencies.

Joint programming is a process through which the United Nations at the country level uses a harmonized approach to work with government and other partners to prepare, support implementation of, and monitor and evaluate programmes of cooperation.

Joint programmes require joint assessments and shared objectives, actions, timeframes and resource requirements, as well as clear delineation of responsibility. The table below shows the processes and products which were common in the MDG-F joint programmes:

Programme components	Processes and products
Problem assessment	common
Objective	common
Timeframe	common
Programme design	common
Activities	common
Reporting	common
Monitoring and evaluation	common
Programme document	common
Budget	agency-specific/common

The MDG Fund was a common fund that was channeled to the participating United Nations agencies at the country level.

Source: UNDG, 1999, 2005

Note: Definitions are taken directly from the background documents cited above.

Examples of country joint programmes are presented in Panels 1, 2 and 3 at the end of this chapter.⁶

While all joint programmes supported national and sub-national governments to **strengthen the policy environment for nutrition**, in nine countries (Bolivia, Cuba, Nicaragua and Peru; Ethiopia, Guinea-Bissau, Mauritania and Senegal; and Bangladesh) joint programmes were designed to directly complement the existing national programmes. The joint programmes provided the opportunity for innovation and scale-up of activities in direct alignment with national policies, and programmes were able to support the policy processes for nutrition. In countries with prior experience in working multisectorally with existing coordination mechanisms, joint programmes used and further supported such platforms. For example, in Mauritania, the joint programme built on the earlier experience and replicated national coordination mechanisms at regional and local levels. In other countries, joint programmes worked to develop multisectoral policies and plans for nutrition. For example, in Albania, the joint programme supported the development of the New Food and Nutrition Action Plan. Other examples of policy development and support include the drafting and/or revising of food safety laws (e.g., in China, Colombia and Guatemala); national plans for specific interventions (e.g., food fortification in Angola and infant and young child nutrition in Mozambique); and maternity and workplace policy (e.g., in Cambodia and Viet Nam).

Many joint programmes **supported advocacy efforts to build national commitment for nutrition** using awareness-raising and capacity-development modalities and communication through different media to inform communities about specific aspects of nutrition. For example, activities included media training for journalists in China, radio programmes in Cambodia and Guinea-Bissau, and a national communication campaign for promoting healthy nutrition with materials in local languages in Viet Nam.

Capacity development was a key objective of all joint programmes. At national and sub-national levels, according to identified capacity needs, efforts were

BOX 4

MDG-F Children, Food Security and Nutrition joint programmes

Afghanistan	Feeding the Children of Afghanistan Together
Albania	Reducing Malnutrition in Children
Angola	Children, Food Security and Nutrition in Angola
Bangladesh	Protecting and Promoting Food Security and Nutrition for Families and Children in Bangladesh
Bolivia	Building the Focal Response Capacity for the Intersectoral Implementation of the Zero Malnutrition Multisectoral Programme
Brazil	MDGs Beyond Averages: Promoting Food Security and Nutrition for Indigenous Children in Brazil
Cambodia	Joint Programme for Children, Food Security and Nutrition in Cambodia
China	Improving Nutrition and Food Safety for China's Most Vulnerable Women and Children
Colombia	Indigenous and Afro-Columbia Communities in the Chocó Department Promote Their Food Security and Nutrition
Cuba	Support for the Fight Against Anaemia in Vulnerable Groups in Cuba
El Salvador	Protecting Children: Towards a Coordinated Food Security and Nutritional Programme for El Salvador
Ethiopia	National Nutrition Programme/MDG-F Joint Programme
Guatemala	Alliances to Improve the Situation of Children, Food Security and Nutrition
Guinea-Bissau	Promotion of a Multilevel Approach to Child Malnutrition
Mali	Improving Child Nutrition and Food Security in the Most Vulnerable Municipalities in Mali
Mauritania	Scaling Up the Fight Against Child Hunger and Malnutrition in South-East Mauritania
Mozambique	Children, Food Security and Nutrition in Mozambique
Nicaragua	'TUKTAN YAMNI' Integrated Model
Niger	Niger Childhood, Food Security and Nutrition Programme
Peru	Improving Nutrition and Food Security for the Peruvian Child: A Capacity-Building Approach
Philippines	Ensuring Food Security and Nutrition for Children 0–2 Years Old in the Philippines
Senegal	Preventing and Managing Child Malnutrition in Highly Vulnerable Regions
Timor-Leste	Promoting Sustainable Food and Nutrition Security in Timor-Leste
Viet Nam	Integrated Nutrition and Food Security Strategies for Children and Vulnerable Groups in Viet Nam

Details of the individual joint programmes and their activities are available at www.mdgfund.org/content/childrenfoodsecurityandnutrition.

made to strengthen national capacity in nutrition governance, advocacy, programme delivery and monitoring and evaluation. Activities included:

- Promoting and constituting regional and local level management synergies (for example, in Peru, training national officials in integrated management of the nutrition plans and programmes)
- Training and retraining in technical areas (for example, in China, farmer training in agro-techniques with training for the farmers' bureau to bring a poverty focus into needs assessments; in Cuba, training health workers in infant and young child feeding programming)
- Developing curricula, guidelines and protocols (for example, in Cambodia, a master's of science curriculum in nutrition developed through consultative processes, and other curriculum development in nutrition in Afghanistan, Albania and El Salvador)
- Developing partnerships with academic institutions to support research (for example, in El Salvador, Ethiopia and the Philippines)
- Educating communities to improve behaviours and practices related to nutrition (for example, training teachers, parents and communities in El Salvador and Bolivia; facilitating mother support groups in Timor-Leste)
- Supporting capacity development for advocacy and communication activities (for example, in Brazil, supporting capacity development of indigenous people to demand their rights and healthcare services)

Importantly, several joint programmes supported the development or revision of **national information and monitoring frameworks and nutrition surveillance systems**. For example, several joint programmes supported surveillance system development (for example, dietary and nutritional surveillance among indigenous populations in Brazil); supported early

warning systems on food and agriculture (for example, in Guinea-Bissau and Viet Nam); and conducted baseline and endline nutritional surveys (for example, in Afghanistan).

The core activity to which the greatest attention was given was the **delivery of integrated packages focused on nutrition-specific interventions**, supported by appropriate behaviour change interventions. These were supported by nutrition-sensitive interventions mainly focused on **improving household and community food security**. These complementary activities, however, were not always targeted in the same geographical areas.

Across the joint programmes, tremendous effort has been made on **building partnerships between stakeholders at all levels**. This involves governments, United Nations agencies, non-government organizations and the private sector. Examples of public-private partnerships supported by the MDG-F joint programmes include preparing fortified complementary foods at the local levels in Timor-Leste and knowledge transfer in the preparation of micronutrient powders.

The MDG-F experience, through its scope and diversity, has generated tremendous knowledge in joint programming for food and nutrition security. Throughout this short period, there has been significant investment in the coordination structures and mechanisms to enhance 'jointness'. Forthcoming final evaluations will document the extent of the results of this huge commitment to and investment in joint programming.

DURATION	September 2009 – May 2013
UN AGENCIES	FAO, UNICEF, WFP, WHO
BUDGET	US\$6,999,884
LOCATION	Amhara (four woredas), Oromia (five woredas), Southern Nations Nationalities and People's Region (five woredas) and Tigray (two woredas)

Ethiopia's MDG-F joint programme (JP) brings together four participating United Nations agencies, working closely with the Federal Ministry of Health, as the lead national government counterpart. The JP is closely aligned with the National Nutrition Plan (NNP), with the aim of enhancing and scaling up implementation of the NNP in 16 selected woredas (districts) in four regions. Within these woredas, the JP targets the following vulnerable groups: 156,000 under-2 children and 14,600 under-5 children with severe acute malnutrition (SAM), 96,500 pregnant and lactating women, 40 women's groups and food-insecure households identified in two woredas.

The JP gives priority to community-based nutrition interventions, contributing to the following four outcome areas:

- 1) Improved management of children with SAM at the health post and community level
- 2) Improved caring and feeding behaviours/practices of children and mothers
- 3) Improved quality and utilization of locally available complementary foods
- 4) Improved nutrition information and monitoring and evaluation systems

Joint activities to improve the quality and utilization of locally available complementary foods

Suboptimal complementary feeding practices are a major source of the poor nutritional status of children in Ethiopia. After the initial six months of exclusive breastfeeding, only 55 per cent of children ages 6–8 months consume solid, semi-solid or soft food; and only 5 per cent of children ages 6–23 months are fed according to minimum dietary diversity standards, with only 4 per cent of children receiving a minimum acceptable diet. In recognition of this need, a major goal of the MDG-F's JP in Ethiopia was to improve the quality and utilization of locally available complementary foods (outcome area 3).

In 2011, a pilot project was initiated in four regions in which local women's groups were trained in food processing techniques to produce customized blends of complementary food according to the availability of

local ingredients. Using an innovative bartering system, village mothers contributed 2 kilograms of their own unprocessed cereals or pulses to the grain banks in exchange for 3 kilograms of the processed complementary food.

This involved several activities to synergize agriculture and nutrition linkages:

- Empowering women – The JP has empowered women with greater knowledge of complementary food and the ability to produce it using processing techniques that would normally take place outside of their communities. Women have also had greater access to extension services provided by the Ministry of Health and regional universities. Discretionary income earned by women has been enhanced in semi-urban areas, where the barter system was replaced by income generation.
- Diversifying production – In addition to introducing new processing technologies to the regions, moving forward, agricultural extension agents will be brought on to assist with production techniques, improving the diversity of cereals, legumes and pulses available for the complementary food blends.
- Building capacity in nutrition – The JP has operated within Ethiopia's National Nutrition Plan and partnered with the Ministry of Health and local universities to develop and implement the pilot. Through the experience, health extension workers, community health workers and the universities have strengthened their capacity in complementary food strategies.

Results so far

Preliminary data from 2012 indicates that 571 children under the age of 2 benefitted from consuming improved complementary food from the grain banks and that the prevalence of wasting among these children has decreased. The processed food was highly accepted by mothers and children alike. Additionally, 20 women's groups were trained in food processing techniques and the preparation of complementary food. The use of local ingredients that the women were familiar with further enabled them to replicate the recipes and preparation techniques they had learned in their own homes, giving them better control over the nutrition of their children.

Guatemala's Alliances to Improve the Situation of Children, Food Security and Nutrition

DURATION	December 2009 – December 2012
UN AGENCIES	UNICEF, UNFPA, FAO, WFP, UNOPS
BUDGET	US\$7,500,000
LOCATION	Department of Totonicapán (eight municipalities)

Guatemala's MDG-F joint programme (JP) adopts a multisectoral strategy to address the multiple drivers of malnutrition, working closely with diverse national partners, including five ministries, municipal governments and universities. The joint programme has been aligned with Guatemala's national nutrition strategies: first the National Strategy for the Reduction of Chronic Malnutrition and then the Zero Hunger Pact, which was announced in 2012. Nearly 4,000 families are targeted in the vulnerable Totonicapán Department, where stunting prevalence was estimated at 82 per cent in children under 5 in 2008.

The JP focuses activities at the household, community, municipal and national levels, including the following:

- 1) Improving the productive capacities, economic access and food consumption of organized rural and indigenous family groups living in conditions of vulnerability
- 2) Improving access to health services for children under 3 years old and women, particularly from rural and indigenous communities
- 3) Strengthening the capacities of national and local entities to implement food and nutrition security policies, programmes and strategies

Joint activities to improve productive capacities, economic access and food consumption

Totonicapán's high level of vulnerability to chronic malnutrition stems from its large number of children under 3 and women of childbearing age, large indigenous population (98 per cent of the total) and conditions of extreme poverty. During the design phase, local leaders working with the JP determined that a primary objective should address the three main pillars of food and nutrition security: availability, access and utilization of nutritious food.

Guatemala's Ministry of Agriculture, Livestock and Food led availability and access-focused activities. Agriculture extension agents trained subsistence-farming households in methods of diversifying and increasing production of nutritious foods, as well as post-harvest storage and processing. Some families also organized into entrepreneurial groups to sell surplus production for income generation. The Ministry of Health and Social Security and the Ministry

of Education supported efforts to improve utilization of nutritious food by mobilizing women as community nutrition promoters and initiating school gardens where teachers, students and parents took part in educational lessons on gardening and food consumption. In all of these activities, special priority was given to female-headed households, which made up more than 90 per cent of participating families.

This strategy made use of several important agriculture and nutrition linkages:

- Creating multisectoral structures – The JP concentrates interventions in one department and adopts a holistic approach. Multisectoral collaboration occurred at the planning stage and implementation stage owing to the need for synchronized timelines in activities focused on availability, access and utilization. To overcome this complex challenge, municipal government representatives, extension agents, women nutrition promoters and other stakeholders met for monthly strategy meetings to report on progress and plan future activities.
- Improving nutrition education, sustainably – Participatory methods are used to educate vulnerable households on the importance of nutrition. Volunteer mothers from the community are trained to promote the nutritional needs of pregnant women and infants, while farmers learn to diversify production through farmer-to-farmer training held in demonstration plots.
- Building institutional capacity in nutrition and agriculture linkages – Agricultural extension agents were essential in promoting food diversification, and as part of the JP, a new municipal cadre of extension agents was initiated in each of the eight districts, improving responsiveness to local demands.

Results so far

The final evaluation of the JP confirmed its success in reaching some of the most vulnerable families in the country's most vulnerable department. Among the 3,946 participating families, there was a small increase in dietary diversity scores from the baseline, with two-thirds of families consuming at least two new nutritious foods twice a week. Eighty-six percent of families who sold surplus production increased their income by at least 60 per cent. Increased production of food for self-consumption also allowed households to decrease food expenditures. In addition to the institutional strengthening, municipal governments were highly active, as was the Department of Totonicapán, which designated 24 per cent of its regular budget to food and nutrition security measures in prioritized communities.

Integrated Nutrition and Food Security Strategies for Children and Vulnerable Groups in Viet Nam

DURATION	March 2010 – March 2013
UN AGENCIES	UNICEF, WHO, FAO
BUDGET	US\$3,500,000
LOCATION	Provinces of Cao Bằng, Điện Biên, Đắk Lắk, Kon Tum, Ninh Thuận and Ang Giang

Viet Nam’s MDG-F joint programme (JP) is jointly executed by three United Nations agencies under the ‘One United Nations initiative’, for which Viet Nam is a pilot country. Viet Nam’s joint programme is closely aligned with its National Nutrition Strategy 2011–2020, for which it provided technical support. Viet Nam’s Ministry of Health and Ministry of Agriculture and Rural Development act as the lead government counterparts, in conjunction with other partners.

Though Viet Nam has achieved significant reductions in malnutrition over the past several decades, gains have been uneven. Poorer women and children, inhabitants of remote areas, ethnic minorities and those affected by HIV remain more vulnerable to food and nutrition insecurity. In particular, infant and young child feeding practices remain sub-optimal.

To respond to these problems, the JP works closely with partners in the following five outcome areas:

- 1) Improving systems for monitoring the food, health and nutrition status of mothers and children, and using information to guide policies, strategies and actions
- 2) Improving infant and young child feeding practices, including increased compliance with the UNICEF/WHO guidelines on exclusive breastfeeding and complementary feeding
- 3) Reducing micronutrient deficiencies in targeted women and children
- 4) Improving care and treatment for children with severe malnutrition and improving nutrition services for young children in emergency situations
- 5) Improving availability, access and consumption of a more diverse food supply in selected highland and mountainous regions in Viet Nam

Interventions have taken place in the first outcome area at the national level, in the second outcome area at the province level and in the last three outcome areas in six provinces where the prevalence of stunting is especially high.

Joint activities to improve nutrition monitoring systems and food production

Viet Nam’s JP takes a comprehensive approach to improving both short-term and long-term determinants of nutritional status. Short-term objectives include nutrition-specific interventions focusing on timely and appropriate

infant and young child feeding practices, whereas long-term objectives adopt a nutrition-sensitive approach to improving agriculture production in targeted provinces. Here, agriculture extension agents were responsible for training farmers in integrated crop management techniques to improve the efficiency of their rice production, food diversification through homestead production systems, and post-harvest storage and processing.

Agriculture and nutrition linkages included the following:

- Food crisis and nutrition monitoring – Viet Nam learned a heavy lesson from the food crisis of 2007, when many poor families could not afford to eat. To better anticipate and prepare for these challenges, the JP concentrated efforts on improving the surveillance and monitoring of nutrition and food security. Data were collected and baselines were constructed for all 63 provinces in Viet Nam, and a monitoring system is now in place at the national level, as well as at several integrated provincial sites. In addition, Viet Nam has incorporated early warning systems that predict future levels of food supply and demand, agricultural commodity prices and impacts of climate change. Sentinel sites were trained to produce rapid nutrition assessments and vulnerability maps for affected populations in the event of an emergency.
- Participatory demonstrations of nutrition-sensitive agriculture – As a part of their role in training targeted families in improving and diversifying food production, agriculture extension agents themselves were trained in experiential learning methodologies, such as the Farmer Field School. Demonstration plots were used for monthly visits, during which farmers were able to experiment with integrated crop management, aquaculture and livestock systems while receiving nutrition education from the extension agents. This learning experience greatly increased their motivation and interest in producing new foods.
- Improving policy coherence for nutrition – Having been designed at the end of a planning cycle, this JP was formulated to provide important lessons for future nutrition policy and strategies; part of this included piloting successful models for up-scaling. Results from the agricultural production interventions on improved nutrition intake have been used as a good practice in recent programmes on restructuring the agricultural sector.

Results so far

The programme has improved the availability, access to and consumption of nutritious food in the targeted provinces. At the national level, a robust nutrition monitoring system has been developed, and the government plans to scale up the early warning systems to more provinces. Having incorporated JP activities into its future food security and nutrition strategy, the government shows a strong commitment to continue these activities in the future.



RESULTS OF THE ANALYSIS

Although the MDG-F joint programmes are a heterogeneous group, they all incorporated guiding principles to improve nutrition through agriculture. By their inherent purpose and design, all joint programmes readily integrated best practices principles in planning, activities and supporting environments (*Figure 2*). Summaries of the findings across the joint programmes, by guiding principle, are presented below.

Best-practice planning principles

Nutrition objectives

All joint programmes incorporated clear nutrition objectives into the components that focused on agricultural parts of the programme. By their very nature, food security and nutrition joint programmes assure that clear nutrition objectives are included, as well as a mix of nutrition-specific and nutrition-sensitive interventions.

Context assessment

All MDG-F joint programmes' proposals included a situational analysis to assess the context to identify the determinants of undernutrition, the at-risk groups and existing programmes. This allowed specific activities to be designed to enhance nutrition-agriculture linkages

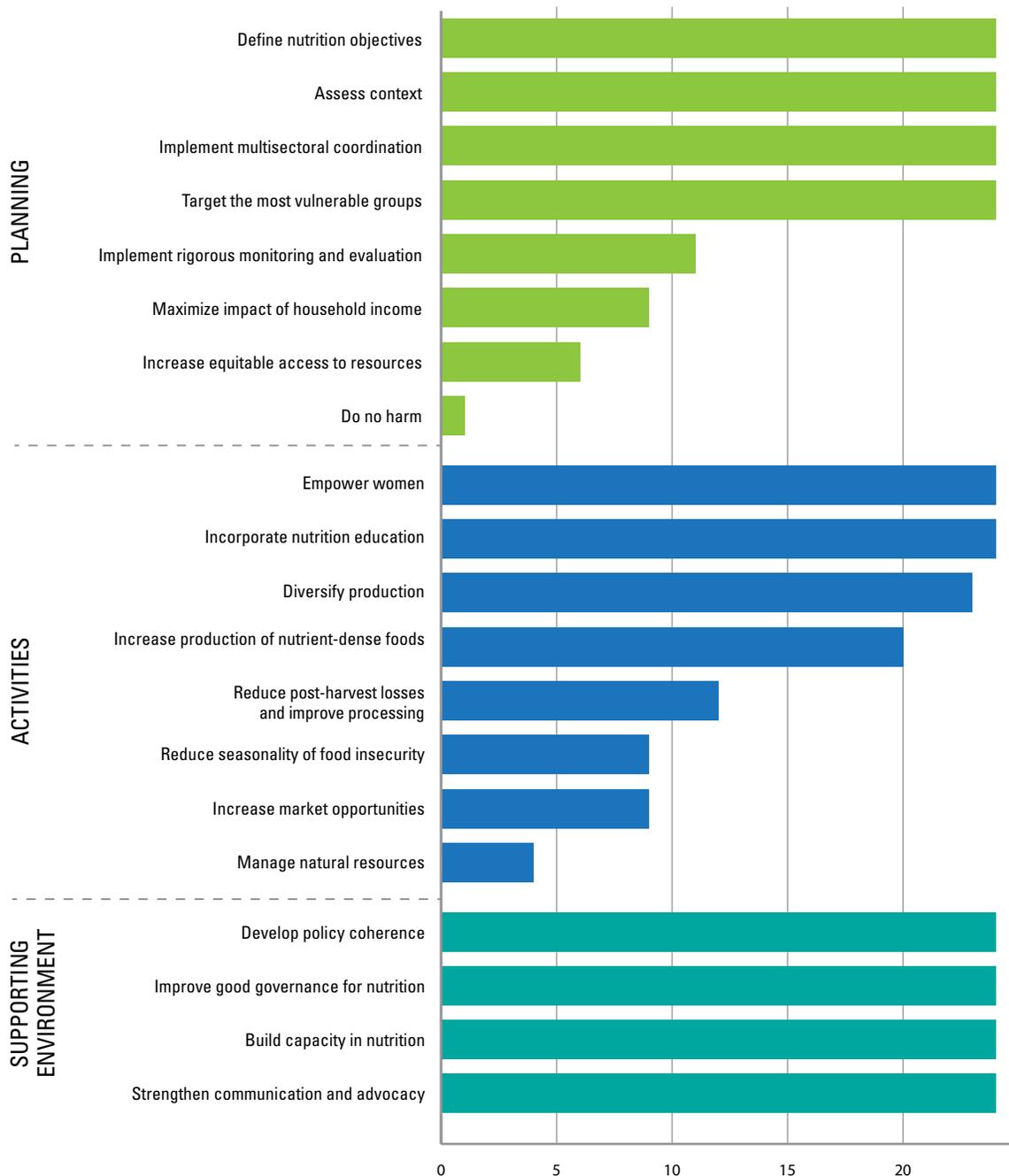
and maximize their effectiveness and efficiency. Although this was by design a joint exercise, in most cases it was primarily developed by the lead United Nations agency of each joint programme. A notable exception was Mauritania's, which built on a joint situational analysis, which was informed by and built on previous work by United Nations Renewed Efforts Against Child Hunger. There were instances in which nutrition-agriculture interventions were not implemented concurrently or for the same beneficiary group, which limited the potential benefit of synergizing agriculture-nutrition linkages.

Do no harm

In this design phase, overall the MDG-F joint programmes did not clearly articulate potentially negative consequences of their designs. The principle

FIGURE 2

Number of joint programmes that incorporated specific guiding principles on agriculture programming for nutrition in their designs (n = 24)



Note: All joint programme designs included the following: in the planning stage, defining nutrition objectives, assessing context, implementing multisectoral coordination and targeting the most vulnerable groups; in activities, specific actions to empower women and incorporate nutrition education; in supporting and creating an enabling environment for nutrition, activities to develop capacity, improve nutrition governance and strengthen communication and advocacy for nutrition.

of 'do no harm' should have been better addressed, although the monitoring and evaluation frameworks did allow for the identification of harmful side effects and the opportunity to adjust. This shortcoming is particularly pertinent because of the existing guidance available on minimizing harmful consequences and on balancing the positive and negative implications for women in agriculture.

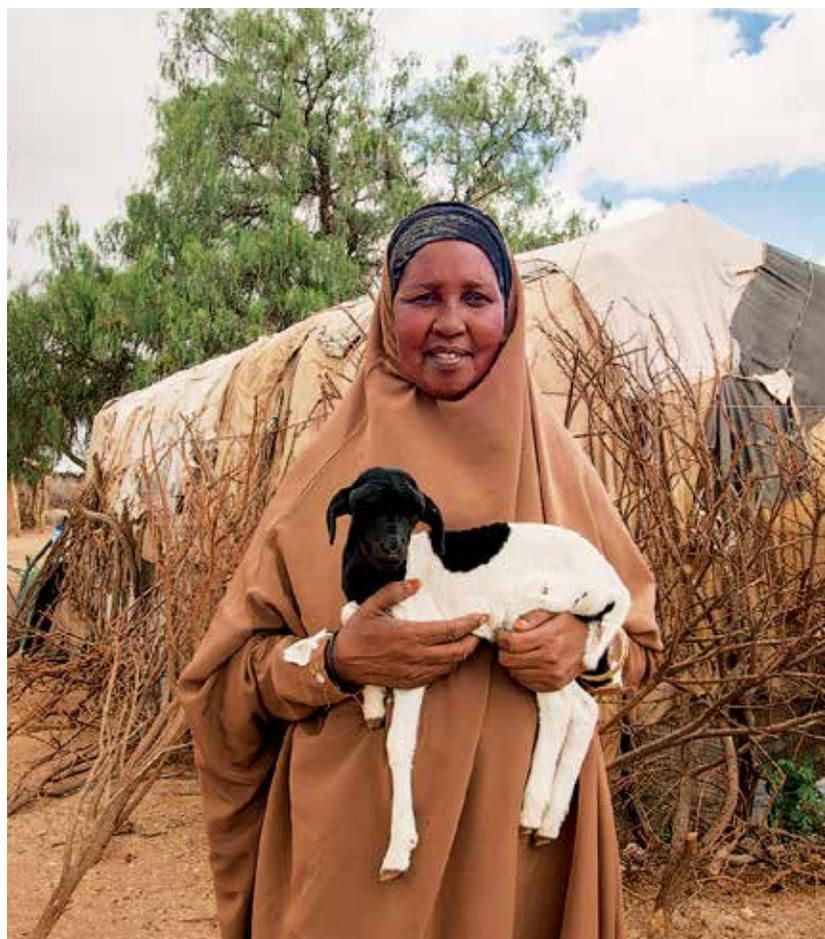
Monitoring and evaluation

A consistent approach to monitoring and evaluation was implemented across the joint programmes. Despite the short implementing period (around three years), a midterm evaluation was conducted, following which an improvement plan was put forward to address issues raised and allow for course correction. At the end of programmes, independent final evaluations are planned to measure the impact and garner the key lessons learned.

Eleven joint programmes incorporated both intermediate outcome indicators and nutritional status. Across the portfolio, the quality of the individual monitoring and evaluation frameworks was highly variable. This remains a major challenge, as the complexity of the programme activities requires a strong, logical, coherent monitoring and evaluation framework to track progress and assess impact. Unfortunately, the weakness of some monitoring and evaluation frameworks and the lack of data available to measure nutrition outcomes will mean that any positive impact of joint programmes will not be quantified.

Targeting

All joint programmes focused on children under 5 years of age, and 22 of the 24 joint programmes had specific activities targeted to women, focusing on pregnant women and/or lactating women, reflecting the global consensus on the importance of focusing on nutrition in early life. The age groups of children who were targeted varied by programme; they included one or more of the following age groups: 0 to 6 months, 0 to 24 months, 6 to 23 months and 6 to 59 months, according to the specific interventions targeted. For



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example, Colombia targeted children in all of these age groups for specific interventions, focusing on improving exclusive breastfeeding of children 0 to 6 months, reducing anaemia in children under 5 years and pregnant women, and providing access to health care for pregnant and lactating women.

The joint programmes had a strong equity focus, concentrating on vulnerable areas and populations. Several joint programmes, especially in Latin America, focused on indigenous or marginalized populations; for example, Brazil and Colombia targeted indigenous children and Afro-Colombian communities, respectively. Despite the focus on vulnerable areas and populations, the geographical convergence of joint programme activities was not always implemented simultaneously in practice. Delays in activities precluded the synergies, and in some cases different food security and nutrition activities were implemented at different sites.

Multisectoral coordination

By their design, the joint programmes and their specific coordination mechanisms (steering committees, programme management committees, etc.) were able to readily maximize the opportunities of intersectoral and multisectoral work. All joint programmes had the cooperation of at least two sectors, with their respective line ministries, and most joint programmes had cooperation with more than two sectors; i.e., ministries as their key stakeholders were on board.⁷ Among all countries with joint programmes, Cuba had the highest number of government partners. Coordination was also facilitated between governmental and non-governmental institutions, as well as the private sector.

In selected joint programmes, focal points within government acted as joint programme coordinators or worked very closely with multisectoral coordination. This proved to be a positive experience (e.g., in Albania, Bolivia, Cuba and Senegal) and built capacity within the government. Joint programmes led by a neutral lead agency were better able to bring together partners and facilitate coordination.

Maximizing impact of household income

Overall the principle of maximizing household incomes was not commonly incorporated into the designs of the joint programmes, with such activities being present in nine joint programmes. For example, in Guatemala (*Panel 2*), the joint programme's objective was to improve food production for both household consumption and income generation, as well as to improve optimal child feeding behaviours. In Ethiopia (*Panel 1*), women's groups were supported to generate income through production of complementary and supplementary foods. Programme evaluations found that even if joint programmes did not include specific design aspects to maximize household income, women and families were generating income through homestead gardens and accessing markets to diversify diets and spend income on child investments, such as education – as, for example, in Timor-Leste.

Equitable access to resources

At the policy level, efforts that focused on multisectoral nutrition policies and plans did not specifically address issues of access to land and water. However, the relevant government line ministries concerned with these issues were often involved in joint programmes, and therefore may have contributed to discussions around nutrition-sensitive agriculture and equitable access to resources, although these contributions were not noted in the programme documents. At the programmatic level, a quarter of the programmes focused on access to credit and/or markets. For example, in Mauritania, the joint programme strove to strengthen the purchasing power of households, particularly in poor rural areas, by improving the economic capabilities of rural households with access to institutionalized activities, such as micro-credit, especially for women.

Best-practice activities

For all joint programmes, the key activities of the MDG-F joint programmes focused on nutrition-specific interventions. These included activities such as 1) promotion of exclusive breastfeeding up to 6 months of age and timely introduction of safe,



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appropriate complementary feeding; 2) screening and treatment of severe acute malnutrition and moderate acute malnutrition; 3) micronutrient supplementation, including delivery of Vitamin A supplements and multiple micronutrient powders; 4) behaviour change interventions to promote healthy feeding practices, including increasing dietary diversity using locally available foods, and other care behaviours; and 5) iron and folic acid supplementation to pregnant women.

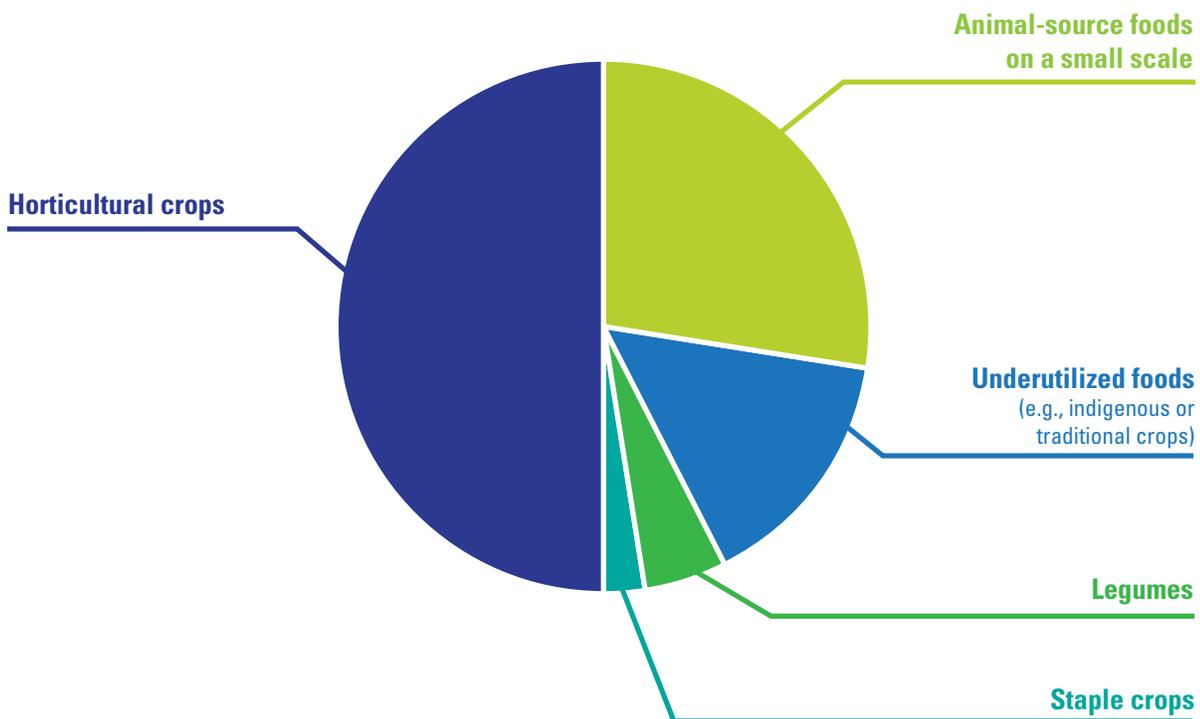
Nutrition-sensitive activities included interventions to **improve access to food and dietary diversification** (Figure 3). All joint programmes, except for Albania's, included activities to diversify production to improve food access and dietary diversification. Twenty joint programmes included activities to increase production of nutrient-dense foods, particularly locally adapted varieties rich in micronutrients and protein, based on locally available solutions. For example, there were several instances of successful initiatives to establish and

support home gardens (e.g., in Bangladesh and Guatemala); rural and urban community gardens (e.g., in Angola and Mozambique); and school gardens (e.g., in El Salvador and Guinea-Bissau).

According to local context and needs, locally adapted crops were selected for increased production of nutrient-dense foods, particularly varieties rich in micronutrients and protein. Examples of such initiatives took place in the joint programmes in Angola, Mali, Mozambique and Senegal; Afghanistan, Bangladesh, Timor-Leste and Viet Nam; and El Salvador and Guatemala. Such activities to improve local production and diversity were achieved through efforts to:

- Improve access to agricultural techniques and technologies; for example, in Bolivia, seeds and machinery were distributed to more than 1,000 families. In Viet Nam, capacities in rice integration crop management systems were developed to

FIGURE 3
Distribution of activities among joint programmes aiming to increase production of nutrient-dense foods





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increase the efficiency of rice production, thereby improving the availability, access and consumption of a more diverse food supply in selected highland and mountainous regions.

- Develop the capacity of agricultural extension workers; for example, in Mozambique, 62 extension workers and 370 activists from five NGOs received training in nutrition education.
- Develop the capacity of communities; for example, in Senegal, 3,500 beneficiaries received training in horticultural practices and nutrition education, as well as small-scale livestock production.
- Improve feeding practices with practical solutions, such as the development of recipes to incorporate locally grown foods; for example, in the Philippines, recipes from homestead gardens and locally available foods were integrated into education activities.
- Integrate home gardening with the promotion of improved complementary feeding practices; for example, in Timor-Leste, mother support groups promoting infant and young child feeding practices were trained to integrate home gardening and food

preparation into on-going community-based activities, including cooking demonstrations in certain areas.

Few joint programmes invested in staple crop production, legume production or biofortification.

Almost half of joint programmes, predominantly in Asia, included activities to increase the capabilities and capacities in **small-scale animal-source food production** (Afghanistan, Cambodia, China, Timor-Leste and Viet Nam; Angola, Mali, Mauritania and Senegal; Bolivia and Colombia). Although some joint programmes included income-generating activities, few joint programmes focused on maximizing opportunities to increase market access. In Peru's joint programme, greater access to markets for micro and small-scale producers was facilitated to increase income.

In contexts with food insecurity, programme activities included interventions to work with communities to sustainably **reduce post-harvest losses**. This was achieved through diversification, use of locally adapted varieties, and improved processing and storage to both preserve and increase income generation. Such activities were present in half of the joint programmes. For example, in Afghanistan, more than 1,000 beneficiaries received training in food processing and preservation, and food-processing training and information centres were established, operated by women. Activities to **reduce seasonality** of food insecurity focused predominantly on diversification of foods throughout the year and improvement of storage and preservation.

The issue of the **management of natural resources** was not well highlighted in the joint programme designs, although improved resilience, adaptation to climate change and access to natural resources remain key issues. Only four joint programmes addressed such issues explicitly in programme documents.

Nutrition education formed a large part of agriculture focused interventions. Using agricultural extension workers or women's support groups, locally adapted messages were used to promote appropriate feeding behaviours and practices. These nutrition education

activities were often combined with other interventions, such as home gardens, so as to synergize the linkages between different programme approaches, thus promoting sustainability. These included group-based activities – for example, in Ethiopia, where capacity development of women’s groups was strengthened to produce locally supplementary foods and to process food; in Niger, where women’s groups were trained in food production and product distribution and benefitted from the profits generated through the sale of products. Joint programmes worked closely with communities to develop technical capacity in food production and processing, complemented by increased knowledge and awareness of how to prepare, diversify and combine increased food security with improved feeding and care practices to improve nutrition.

All joint programmes embraced approaches that **empowered women** through different pathways and activities. All joint programmes had downstream activities specifically targeted to empower women,

predominantly through improving women’s access to extension services, financial services, technology, inputs, markets and information and adding programme components to enable high-quality child care. No joint programmes stated explicitly that there was specific consideration of avoiding harm to women’s ability to care for children, with only one investing in labour and time-saving technologies targeted to women. Several joint programmes also worked upstream in advocating for policies to support women’s rights to food and health, advocating for policies to support women’s rights to land, education and employment.

Best practices for developing a supporting environment for nutrition-sensitive agriculture

The MDG-F joint programmes were designed to create a stronger supportive environment for nutrition. Improved policy coherence, good governance for nutrition supported by stronger capacity in nutrition, and advocacy and communication were components



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that were developed and enhanced by the joint programme experience.

In particular, upstream activities were designed to help mainstream nutrition into relevant policies and programmes, thus contributing to improved **policy coherence for nutrition** and long-term nutrition-sensitive development. By their very nature, many stakeholders across difference sectors were brought together in the course of the joint programme, helping to build consensus on steps to improve the policy environment around nutrition. This was supported by strong communication and advocacy, which promoted the multisectoral approach and emphasized the linkages between nutrition and agriculture.

To improve **good governance for nutrition**, almost all (21 out of 24) joint programmes worked to **build surveillance systems**. In Albania, the joint programme worked to strengthen the national food and nutrition surveillance system. Technical assistance supported

the development of a tracking system to assess the impact of high food prices on food shortages, and capacity development helped to improve survey methods to measure crop production, market change prices and regular reports on food availability. In Viet Nam, national capacity was built to develop a tracking system to improve information on food production stocks and availability and market prices at national, provincial and local levels (*Panel 3*). Activities included provincial workshops on improving crop production survey methods, sampling frames, cereal balance sheet estimates, and market prices and training on rapid nutrition assessment in emergencies. Also, more than half of joint programmes worked to build leadership and commitment at the highest levels among governments and donors and/or supported development of a national nutrition strategy and action plan.

Regardless of the specific focus of the joint programme interventions, **capacity development**,



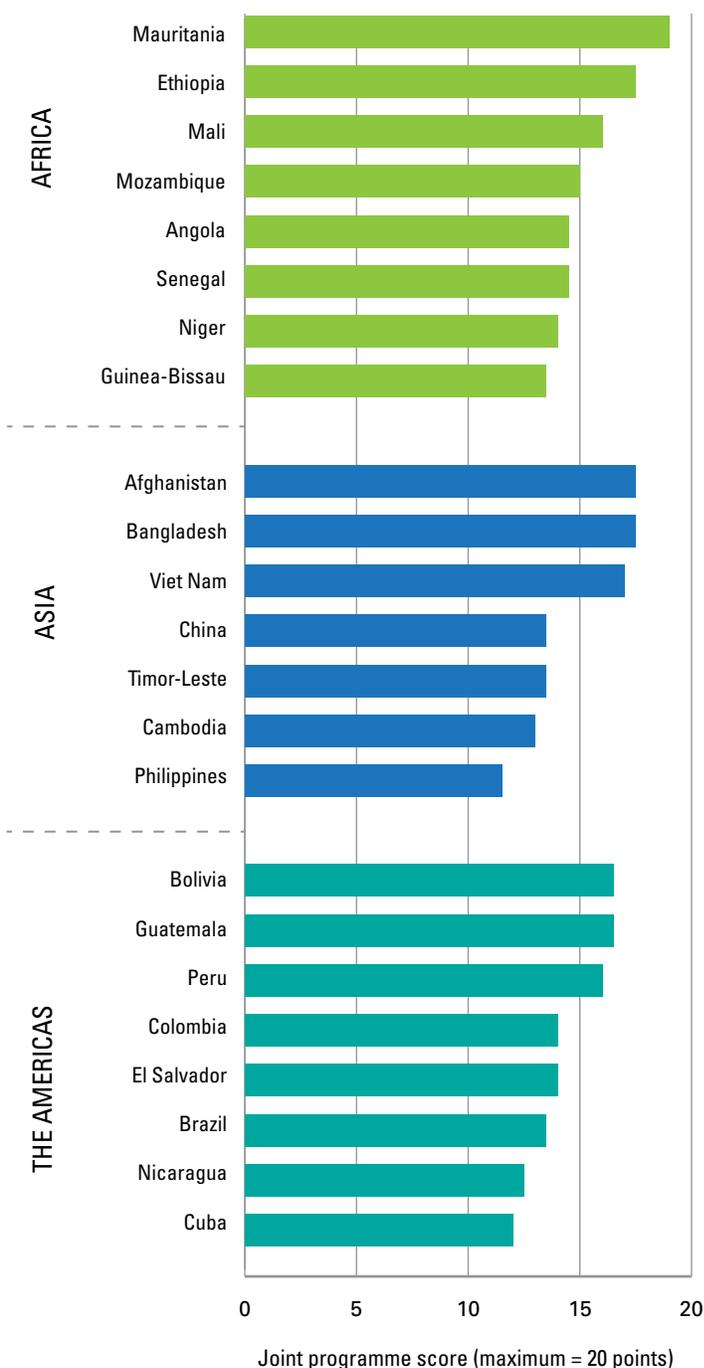
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within both government and non-government staff at all levels to sustainably support the overall aims of the joint programme, was an integral part of the joint programmes. Training started at community, district and ministry levels to ensure that the personnel engaged in nutrition education, agricultural production, communication and advocacy, information systems, management of SAM, and distribution of micronutrient powders and ready-to-use therapeutic food are capable of carrying out these duties.

The joint programmes played an important role in advocating for the issues of food security and nutrition. This **joint advocacy** from the joint programme, rather than individual agencies, proved to be more powerful in forwarding the nutrition agenda with governments. In order to build better coherence among the United Nations agencies and present a more united front for dealing with national governments, different models were used. In some joint programmes, the United Nations resident coordinator office assumed the leading role, and in others, the leading agency rotated during the joint programme's lifespan (e.g., in Nicaragua between UNICEF and FAO). Advocating for the issues of both food security and nutrition helped to highlight and enhance the synergies between the two issues.

Figure 4 shows the scores of individual MDG-F joint programmes across the three main regions, indicating the extent to which they incorporated the guiding principles on agricultural programming for nutrition based on this analysis.

FIGURE 4
Extent to which individual joint programme designs met the guiding principles on agricultural programming for nutrition



Note: As Albania was the only country in Eastern Europe that had a MDG-F joint programme, it is not included in this figure. Albania's score was 10.5.



DISCUSSION

Based on this analysis of the MDG-F joint programme designs, it is evident that the model of joint programming for food security and nutrition readily incorporates several best practices for improved nutrition-sensitive agriculture programming. This joint programme approach therefore offers great potential in promoting nutrition-agriculture linkages. This MDG-F experience offers policymakers and programme implementers a foundation from which to design future joint programmes that better link agriculture and nutrition.

This discussion is structured in three parts: first, some key findings are summarized; second, the challenges and lessons learned from the MDG-F experience are presented; and third, the recommendations for future joint programmes incorporating nutrition-agriculture linkages are presented.

Key findings

From this systematic analysis of nutrition-agriculture linkages across the joint programmes in the MDG-F, some key findings emerge. First, the MDG-F joint programmes, by design, incorporated several best practices for maximizing nutrition outcomes from agriculture programming. Of the 20 criteria used to assess joint programme designs, MDG-F joint programmes generally scored well on 11 (*Figure 2*). In particular, all joint programmes contributed to building a stronger supporting environment for nutrition. Although there are limitations and constraints to such

an assessment, these are interesting findings and speak to the potential advantage of the joint programming model for food and nutrition security.

Second, the fact that the FAO guiding principles framework was adaptable to complex programmes in varied settings was confirmed. This MDG-F analysis demonstrates the alignment with the established consensus from development institutions on the best practices for nutrition-sensitive agriculture programming. This perhaps is not unexpected, given that these same institutions were involved to various degrees in the design of the programmes.

Third, the use of such guiding principles in designing joint programmes is likely to enhance synergies between agriculture and nutrition. The process of making all stakeholders aware of current best practices for nutrition-sensitive agricultural programming is likely to benefit the joint programme planning process



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BOX 5 The convergence approach in MDG-F joint programmes

The joint programmes brought together multiple United Nations agencies that otherwise might have not worked together, building on their comparative strengths and pooling their knowledge. Importantly, the joint programmes also brought their respective government counterparts to work towards shared objectives, aligned with national priorities, to improve food security and nutrition among vulnerable populations. In doing so, in several joint programmes, both nutrition-specific and nutrition-sensitive interventions were targeted in the same vulnerable geographical areas. This embodies the multisectoral convergence approach, which necessarily requires geographical convergence, ideally with subsequent targeting of vulnerable groups within these geographical areas.

Early findings from the MDG-F suggest that the benefits of convergence outweigh the increased efforts of multisectoral coordination. For example, evaluation of the MDG-F Bangladesh joint programme indicates that the theoretical benefits of synergies of multisectoral efforts with nutrition and/or food-security-related objectives can be realized.

to design better multisectoral programmes. As joint programme final evaluations become available, in a follow-up analysis the impact of applying the guiding principles for nutrition-sensitive agricultural programming on outcomes can be assessed.

Fourth, it is evident that the MDG-F joint programme model offers great opportunity to pursue nutrition-sensitive agricultural programming, applying the 'convergence approach' (Box 5).⁸ In this approach, nutrition-specific and nutrition-sensitive interventions are jointly targeted to vulnerable geographical areas and populations within them. As the joint programmes close in mid-2013, assessing the evidence of the actual impact of the convergence approach and these synergies should help guide future programmes.

Lessons learned

Despite the clear conceptual benefits to joint programming for food security and nutrition in harnessing nutrition-agriculture linkages, there are several complexities and hurdles associated with putting this into practice. The short-term nature of programmes makes operationalizing nutrition-agriculture linkages and achieving results, which necessarily require multisectoral collaboration, challenging. Learning from both the challenges (Annex 4) and lessons learned from the MDG-F experience in food security and nutrition may assist with more efficiently and effectively designing such programmes in the future. Below are some key lessons gleaned from the process so far.

MDG-F joint programmes inherently encompass key guiding principles on agriculture for nutrition programming.

By their very nature, all MDG-F joint programmes included nutrition objectives, included situational analysis, incorporated multisectoral coordination and targeted vulnerable groups. For many programmes, women were the key focus of interventions, and activities were centred on empowering them and their decision-making capacities. The joint programmes also worked to build a supportive enabling environment, investing in capacity development for national stakeholders and investing

in governance structures for nutrition. In terms of specific interventions, there was an emphasis on nutrition-specific interventions. However, drawing on the comparative advantage of FAO in particular, there was incorporation of nutrition-sensitive approaches focusing on nutrition-agriculture synergies.

Investment in the design phase is critical to planning for nutrition-sensitive agriculture

joint programmes. There are many pathways linking agriculture and nutrition. Based on the specific context and needs of the population, activities must be planned carefully to synergize potential linkages between agriculture and nutrition. This requires a joint situational analysis, joint review of past country experiences and joint planning of the activities, with consideration of the guiding principles on agriculture for nutrition programming, as well as a monitoring and evaluation framework to adequately assess progress and enhance performance.

Engagement at all stages with national government and civil-society stakeholders is critical to ensuring sustainability and ownership.

From the design stage, inclusively engaging with national and subnational government and civil society institutions is required to ensure alignment with national priorities and needs and to assure long-lasting ownership of the programme goals and working towards more nutrition-sensitive agriculture. Developing capacity at all levels – national, subnational and community – in nutrition-sensitive development is required. In particular, at the local level working responsively with communities will assure that approaches are contextually acceptable and relevant. To this end, the programme should begin with the exit strategy and longer-term vision in mind, at all levels. Such considerations, together with sustainability and long-term resilience and management of resources (such as soil, water and biodiversity), are critical.

Clear alignment with national nutrition policies and priorities enhances the likelihood of sustainable success. Joint programmes should be aligned with national nutrition policies and priorities, and should build on national government coordination

structures and government capacities. Drawing on existing national policies and plans and raising awareness of nutrition-specific development are more likely to lead to long-term success. Harmonizing nutrition-sensitive agricultural interventions with national priorities and building local capacity during programme implementation are more likely to enhance government ownership and bring about sustainable adoption of these activities.

Both upstream and downstream activities are required to support nutrition-sensitive agriculture.

Creating a supportive enabling environment for nutrition-sensitive agriculture through policy development and capacity development is important. Joint programmes, through joint advocacy and by bringing together multiple sectors and their respective line ministries, inherently created opportunities to foster upstream activities to promote nutrition-sensitive approaches through awareness building and capacity development. Such upstream activities complement the programmatic agriculture activities to diversify production and access to food and improve livelihoods. MDG-F joint programmes that combined these approaches demonstrated complementary results. Joint programmes were also able to draw on tangible results from programme implementation to inform and support policy reform.

Joint programmes should focus on a limited number of activities, with the idea of enhancing the synergies of combining both nutrition-specific and nutrition-sensitive activities.

Some MDG-F joint programmes were overly ambitious, trying to incorporate several different types of activities, in different geographical locations, sometimes for different target populations. Successful programmes included those that were more limited in their scope and approach, focusing on populations in fixed areas, where the same target groups were the beneficiaries of multiple interventions. This way it was easier to focus efforts on building capacity and support for the programme, enhancing programme performance and generating the needed favourable results to help advocate for continuation of the integrated approach.

Joint programmes incorporating nutrition-sensitive approaches require sufficient time for design, start-up, implementation and exit phases. Building the necessary capacity for complex joint programming requires time. In many cases, stakeholders require persuasion to invest in multisectoral collaborations and education about the roles and potential benefits of including other sectors. In the case of demonstrating results, nutrition-sensitive approaches take time, exceeding that of a three-year programme cycle. In this thematic area, almost all programmes at the time of the midterm evaluation showed that areas of implementation were delayed and yet requested no cost extensions. More than three years is needed, not only for the programme itself but also for the exit stage. Having more time allotted to review results and learn from them is likely to ensure the sustainability of the good practices highlighted by final evaluations.

Plans to document experiences in nutrition-sensitive agricultural interventions should be put in place early to inform national policy and programme scale-up. In many cases, joint programmes included pilot activities trying new approaches to nutrition-sensitive agriculture. Unfortunately, the outcomes of these pilots were not always captured. This is because of suboptimal monitoring and evaluation frameworks and lack of knowledge management capacity at the country level to support this. Future joint programmes with innovative pilots must ensure that strong monitoring and evaluation is in place, and plan for this at the onset by including knowledge management activities in the joint programme work-plan to ensure that lessons, both good and not-so-good, are adequately captured to inform further work.

Recommendations

An intention of this analysis was to inform broader discussions about how to address hunger, food security and nutrition jointly. It appears that we are entering a new era of working multisectorality; these multisectoral efforts seek to translate potential synergies among agriculture, health and nutrition into real results at the community level.

The MDG-F joint programme model embraces this multisectoral approach, offering a practical way to promote nutrition-sensitive agriculture at the programmatic level within food security and nutrition programmes. The following recommendations (based on the findings so far from the MDG-F experience and not on the results that are still awaited)⁹ offer guidance to help future joint programmes better incorporate agriculture interventions and ultimately address nutrition security.

Espouse the substantial and growing knowledge of guiding principles for agricultural programming for nutrition, and incorporate this knowledge in the joint programming process.

While joint programmes inherently incorporate many of the guiding principles recommended by development institutions for agricultural programming



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for nutrition, it is necessary to systematically take into consideration established best practices, most importantly in the design and planning stage. Using institutional knowledge and best practices from each sector and sharing them to build a stronger collective knowledge on joint programming for food security and nutrition should help planners design better, more effective joint programmes.

Limit the complexity of joint programmes by deciding what should be included in the programme, and focus energies on integrated activities shared between United Nations agencies. By their nature, joint programmes may have greater complexity than other types of nutrition programmes. From the MDG-F experience, joint programmes that involved more than five United Nations agencies were more likely to have coordination challenges, with more disjointed designs and efforts spread over different activities. Future joint programmes should make a joint decision at the design stage about the focus of the programme and the level of ‘jointness’ and complexity that is feasible (for example, based on previous experience in joint programming and existing coordination mechanisms). By limiting United Nations partners and the joint activities, energies and resources can be targeted to enhance the nutrition-agriculture synergies of specific activities within programmes, as guided by the joint situational analysis and joint decision-making. Furthermore, assuring more balanced budget allocation may create equal investments in joint processes between the agencies: joint programmes with more even allocation of budgets between United Nations agencies tended to incentivize greater collaboration and integration of activities.

Embrace the principles of joint programming as they inherently promote the multisectoral ‘convergence approach’ to focus nutrition-specific and nutrition-sensitive approaches in the same geographical location. Implementing the convergence approach requires inherent practices of joint programming: programme design based on a joint situational analysis, with joint planning to facilitate a holistic response to the specific determinants



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of nutrition; implementation, with clear division of responsibilities for activities; joint monitoring and evaluation; and joint decision-making to improve the overall performance of the programme. To foster the convergence approach, joint programmes must identify the geographical area to target interventions. Activities by different stakeholders must be coordinated temporally as well as geographically to maximize the synergies. In some MDG-F joint programmes, there were examples of different activities implemented in different geographical areas or delays in initiating complementary activities, thereby missing opportunities for potential synergies.

Give sufficient time for joint programmes incorporating agriculture interventions to achieve programme impact and strengthen multistakeholder and multisectoral coordination.

Joint programmes that include agricultural activities addressing the underlying and basic determinants of undernutrition are likely to need time to demonstrate results. Given these factors, joint programmes incorporating nutrition-sensitive agriculture are likely to require project cycles of at least five years. This time will also help develop and strengthen the multisectoral coordination mechanisms required by joint programmes, which can promote long-term success.

Invest time and expertise in the design of joint programme monitoring and evaluation frameworks that will support decision-making to improve programme performance.

Take advantage of the emerging guidance for evaluation of nutrition-sensitive agriculture, and ensure alignment between the programme objectives, logistic frameworks, and monitoring and evaluation frameworks to measure the impact of the programme. Within this system, ensure that selected indicators will support decision-making. Monitoring and evaluation systems are also critical to identifying unintended consequences and mitigating any harmful results; this was an area that did not receive sufficient attention in the designs of the MDG-F joint programmes. In practice, the MDG-F experience showed that joint monitoring visits of field sites were useful for addressing bottlenecks and facilitated useful exchanges between implementing teams, especially to share expertise on particular aspects to help synergize activities.

Plan and invest in activities to capture the knowledge gained, so as to add to the limited evidence base to support nutrition-sensitive approaches.

For many stakeholders, implementing nutrition-agricultural activities through the joint programme model may be new and an exciting area of work. Having a strong knowledge management strategy will help in generating, exchanging, sharing and disseminating knowledge acquired through the programme cycle on this topic. Rigorous evaluation of well-designed joint programmes presents a great opportunity to contribute to the evidence base (a key gap identified by the 2013 *Lancet* series). Building this evidence and sharing best practices through experiences such as the MDG-F will help to guide this multisectoral approach to address food security and nutrition jointly.

Invest in capacity development for multisectoral work that includes nutrition-sensitive agriculture activities.

As combined nutrition-specific and nutrition-sensitive programmes are in a nascent stage in many contexts, this requires substantial investment

in capacity building and development to educate the various stakeholders on the benefits and synergies of including nutrition-sensitive agriculture in joint programmes. The MDG-F experience invested heavily in capacity development, with all joint programmes investing in the capacity of national government stakeholders. This helps to maximize the effectiveness of stakeholders to work multisectorally in nutrition and contributes to the long-term sustainability of the programme goals.

Strengthen policy coherence for nutrition and national nutrition governance to create a supportive enabling environment.

All MDG-F joint programmes invested in activities to improve policy coherence for nutrition and good governance. Joint advocacy with one voice from the joint programme proved to be a very effective method of building awareness and political commitment for multisectoral approaches for nutrition and strengthening nutrition governance. Future joint programmes should identify joint priorities and strategies to focus joint advocacy efforts; the MDG-F experience shows that success in policy reform and planning is possible in a short time frame. These upstream activities are important for creating a sustainable enabling policy environment and assuring some balance between the short-term responsiveness of programme activities and long-term strategic national goals.

Maintain a strong gender focus, keeping women at the nexus of agriculture and nutrition.

It is widely accepted in the literature that women should be at the centre of programmes linking agriculture and nutrition. The MDG-F experience has shown that involvement of gender experts strongly correlates with gender-responsive programme design. Therefore, it is important to include and involve technical gender-equality expertise in programme planning and management. Programme activities, taking advantage of the best available guidance, should work to strengthen the capacity of women to enhance the food security, nutrition and health of their families and communities.

Annex 1

Nutrition-specific and nutrition-sensitive interventions

UNICEF's conceptual framework captures the multifactorial causality of undernutrition. Three underlying factors determine child nutrition: 1) food, with access to affordable, diverse, high-quality food; 2) care, with appropriate and adequate maternal and child care and feeding practices; and 3) healthy environments, with access to adequate health services and water, sanitation and hygiene. As the relative importance of these factors differs from context to context, so must the solutions. Delivering effective solutions requires that both nutrition-specific and nutrition-sensitive interventions are appropriately targeted to those in need.

Nutrition-specific interventions directly impact the immediate determinants of undernutrition through improving household food security, improving care and feeding practices, and improving household environment and access to health services.

Examples of nutrition-specific interventions include activities focused on:

- Maternal nutrition and prevention of low birthweight
- Infant and young child feeding: Breastfeeding, with early initiation (within one hour of birth) and continued exclusive breastfeeding for the first six months, followed by continued breastfeeding up to 2 years; safe, timely, adequate and appropriate complementary feeding from 6 months onwards
- Prevention and treatment of micronutrient deficiencies
- Prevention and treatment of severe acute malnutrition
- Promotion of good sanitation practices and access to clean drinking water
- Promotion of healthy practices and appropriate use of health services

Nutrition-sensitive interventions indirectly impact the immediate determinants of undernutrition by affecting the basic causes of undernutrition. This requires adjusting policies and programmes across different sectors to ensure that they deliver results for nutrition.

Examples of nutrition-sensitive interventions include activities focused on:

- Agriculture
- Social protection
- Early child development
- Water, sanitation and hygiene
- Health and family planning services
- Education
- Gender empowerment

Nutrition-sensitive agriculture and food policies and programmes are those that address the underlying and basic determinants of undernutrition, can be implemented at scale and effectively reach vulnerable nutrition-insecure populations, and can be employed to deliver and synergize with nutrition-specific interventions.

Adapted from UNICEF, 2013; *Scaling Up Nutrition*, 2010; Ruel and Alderman, 2013.

Annex 2

Guiding principles on agriculture programming for nutrition

The following principles summarize the consensus for improving the linkages between agriculture and nutrition. These 20 guiding principles formed the criteria by which the joint programme designs were assessed. More detailed definitions and explanations are found in the reference document, *Synthesis of Guiding Principles on Agriculture Programming for Nutrition*, published by FAO. These are direct quotes from this resource.

Planning

1. Incorporate explicit nutrition objectives into agricultural projects, programmes and policies.
2. Assess the context to identify nutritional problems and maximize effectiveness to reduce negative effects.
3. Identify confounders; indicate effort to reduce and monitor plan.
4. Measure impact through programme monitoring and evaluation.
5. Utilize opportunities through multisectoral coordination.
6. Maximize impact of household income on nutrition.
7. Increase equal access to productive resources: land, water and credit, through policies and programmes.
8. Target the most vulnerable groups: smallholder farmers, women and poor/food-insecure households.

Activities

9. Empower women to increase income, improving access to services and decreasing constraints for them to being able to take care of their children.
10. Incorporate nutrition education to improve food consumption and nutrition status through interventions.
11. Manage natural resources to increase productivity, adaptation to climate change and equal rights to manage resources.
12. Diversify food production to improve food access and dietary diversification, natural resource management and improved income.
13. Increase production of nutrient-dense foods (varieties of locally available foods).
14. Reduce post-harvest losses and improve processing to increase consumption of varieties of foods.
15. Increase market access and opportunities to improve smallholder incomes.
16. Reduce seasonal food insecurity through crop diversity and improved storage.

Supporting environment

17. Improve policy coherence supportive to nutrition (i.e., food price policies, subsidies, trade policies and pro-poor policies).
18. Improve good governance for nutrition (i.e., national nutrition strategy, plan, budget and surveillance).
19. Build capacity at national, district and community levels.
20. Communicate and continue to advocate for nutrition.

Source: FAO, 2013.

Annex 3

Criteria used to assess joint programme designs based on the guiding principles on agriculture programming for nutrition

Planning	
Guiding principle	Criteria used to assess joint programme design
1 Nutrition objectives	Were explicit nutrition objectives included to guide specific activities, and were monitoring and evaluation plans included to maximize positive nutrition impact? (Yes/No/Partial)
2 Assess context	Was a situational analysis conducted to assess the nutrition context, identify target groups and identify opportunities to address constraints, building on existing efforts, knowledge and resources? (Yes/No/Partial)
3 Do no harm	Was the process of identifying potential harms, developing a mitigation plan and setting in place a well-functioning monitoring system explicitly stated in the joint programme document? (Yes/No/Partial)
4 Monitoring and evaluation	Were intermediate outcome indicators as well as nutritional status indicators measured? (Yes/No/Partial)
5 Multisectoral coordination	Was a coordination mechanism established in the planning, review and implementation phases? (Yes/No/Partial)
6 Maximize impact of household income	Did the joint programme design include activities to maximize the impact of household income on nutrition, e.g., increasing women's access to income-generating opportunities and discretionary control of income? (Yes/No/Partial)
7 Increase equitable access to resources	Did the joint programme design include activities to increase equitable access to productive resources through policies and programmes – e.g., at the policy level, increasing access to land rights and water; at the programme level, facilitating access to credit, productive assets and markets (for women in particular)? (Yes/No/Partial)
8 Target the most vulnerable groups	Did the joint programme target the most vulnerable groups? (Women/Children/Marginalized communities)

Annex 3 (continued)

Activities	
Guiding principle	Criteria used to assess joint programme design
9 Empower women	<p>Did the joint programme design set out to empower women? If yes, through which pathway(s)?</p> <ul style="list-style-type: none"> • Increased discretionary income • Improving women's access to extension services, financial services, technology, inputs, markets and information • Avoiding harm to their ability to care for children • Investing in labour- and time-saving technologies targeted to women • Adding programme components to enable high-quality child care • Advocating for policies to support women's rights to land, education and employment
10 Incorporate nutrition education	<p>Did the joint programme incorporate nutrition education to improve consumption and nutrition effects of interventions? If yes, which topics were included?</p> <ul style="list-style-type: none"> • Improving food safety • Promoting consumption of healthy diets and locally available and nutrient-dense food • Understanding nutritional requirements of different family members and care/feeding practices
11 Manage natural resources	<p>Did the joint programme design include activities to manage natural resources to improve resilience to shocks and adaptation to climate change (including increased equitable access to resources through soil, water and biodiversity conservation)? (Yes/ No/Partial)</p>
12 Diversify production	<p>Did the joint programme include activities to diversify production and livelihoods for improved food access and dietary diversification, natural resource management, risk reduction, improved income and other purposes? (Yes/No/Partial)</p>
13 Increase production of nutrient-dense foods	<p>Did the joint programme design include activities to increase production of nutrient-dense foods, particularly locally adapted varieties rich in micronutrients and protein, chosen based on local nutrition issues and available solutions? If yes, which were applied?</p> <ul style="list-style-type: none"> • Horticultural crops (school, home, clinic, community, urban) • Animal-source foods on a small scale (fish, livestock) • Underutilized foods (e.g., indigenous or traditional crops) • Legumes • Biofortification • Staple crops
14 Reduce post-harvest losses and improve processing	<p>Did the joint programme design include activities to reduce post-harvest losses and improve processing? If yes, did activities aim to do the following?</p> <ul style="list-style-type: none"> • Increase/prolong access to/consumption of diverse foods among both producers and consumers • Preserve/increase nutrient content of food • Increase income/profits • Improve food safety • Increase solar drying • Increase biofortification
15 Increase market opportunities	<p>Did the joint programme design increase market access and opportunities to improve smallholder incomes (especially for women) and consumer diets? If yes, what activities were included?</p> <ul style="list-style-type: none"> • Farmer associations • Improved infrastructure • Social marketing and demand creation for smallholders' production
16 Reduce seasonality of food insecurity	<p>Did the joint programme design aim to reduce seasonality of food insecurity? If yes, what activities were included?</p> <ul style="list-style-type: none"> • Diversification throughout the year • Improved storage and preservation • Other approaches

Supporting environment

Guiding principle	Criteria used to assess joint programme design
17 Policy coherence	Did joint programme upstream activities set out to improve policy coherence for nutrition? (Yes/No)
18 Improving good governance for nutrition	Did joint programme activities set out to improve good governance for nutrition? If yes, what activities were included? <ul style="list-style-type: none"> • Building leadership and commitment at the highest levels of governments and donors • Supporting development of a national nutrition strategy and action plan • Allocating adequate budgetary resources • Enabling nutrition surveillance (e.g., building information systems) for transparency and accountability
19 Building capacity in nutrition	Did joint programmes build capacity in ministries at national, district and local levels and increase nutrition staff? (Yes/No)
20 Communication and advocacy	Did joint programme include communication and advocacy for nutrition? If yes, did activities attempt to do the following? <ul style="list-style-type: none"> • Raise awareness of malnutrition • Disseminate results • Influence programme and policy changes

There were some specific issues with the adaptation of the guiding principles into indicators used in this analysis and with the scoring.

Indicators

- For monitoring and evaluation, because of the time frame of the joint programmes, not all joint programmes sought to include both intermediate and nutrition status indicators. The partial category was interpreted as either an intermediate or nutrition status indicator.
- The indicator relating to increasing equitable access to resources was broad, looking at both policies and programmes. At the programme level, productive assets were defined as those not directly related to agricultural activities, as these were captured in other indicators.
- Although several joint programmes included activities that reduce seasonality of food insecurity, such as home gardens, for the purpose of this analysis, only if joint programme documents explicitly stated the link of these activities to reduced seasonality was this included.
- In the indicator 'Reduce post-harvest losses and improve processing', salt iodization was not included as a fortification activity, as this was not related directly to agricultural activities.

Analysis

- In assigning joint programme scores, the following metric was applied: yes = 1 point; partial = 0.5 points; no = 0 points.
- For selected indicators, a qualitative analysis was conducted to explore the specific activities. For example, for the indicator relating to good governance for nutrition, the modes that were applied to achieve this – such as strengthening the nutrition surveillance system, building leadership, supporting national planning and allocating adequate budgetary resources – were also documented to enhance the analysis.

The detailed analysis of the joint programme designs is available from the Knowledge Management Initiative on request (email nutrition@unicef.org).

Annex 4

Key challenges to pursuing nutrition-sensitive agriculture using the joint programming model, identified by the Children, Food Security and Nutrition joint programmes

General challenges that were faced during the implementation of MDG-F joint programmes, as well as specific challenges faced when incorporating agricultural activities within joint food security and nutrition programmes, are discussed below.

High programme complexity, with the need for coordination: The joint programme designs were complex, including both upstream and downstream activities implemented by different partners, sometimes in different areas. Joint programmes also brought together multiple United Nations agencies, government partners and non-governmental partners. Managing such complexity required strong coordination, necessitating strong leadership by the various committees and the joint programme coordinator. This presented several challenges in routine programme management; for example, in arranging meetings with representation by programme partners, reviewing information and progress, and time taken to reach joint decisions. Substantial investment in coordination was required for joint programming, and building this capacity took time and effort.

Limited experience of joint programming for food security and nutrition: In many cases, the joint programme represented the first experience of working so closely with other United Nations agencies under one programme. Each United Nations agency, with its different internal mechanisms for financial management, human

resources and accountability, added further to the challenge of the high level of programme complexity. While responsibilities were divided and agency-specific accountability mechanisms for programme activities were well defined, it was challenging to develop joint responsibilities and joint accountability mechanisms for overall joint programme performance, in part owing to limited experience with joint programming.

Inadequate investment of time and expertise at the design and planning stage: As highlighted by midterm evaluations, insufficient investment in the design phase negatively affected the efficiency and effectiveness of the joint programmes, hindering the start-up and implementation phase. As joint programmes are by their nature complex, they require careful design so as to best maximize nutrition-agriculture linkages. Collaboration for joint programming for food security and nutrition begins in the design phase, which requires thorough understanding of the situational context and careful design of the specific interventions, targeting them to specific groups and geographical areas.

Limited understanding and experience of monitoring and evaluation of nutrition-sensitive agriculture interventions: Several midterm evaluations highlighted shortcomings of the joint programmes' logical framework and the associated monitoring and evaluation framework with which to evaluate joint activities. Evaluators were critical of the quality of indicators used, which in many cases were not clearly linked to the stated programme outputs and outcomes. There is a need to improve the knowledge of joint

programme teams in joint programme monitoring and evaluation, and to make use of the guidance available to support the monitoring of nutrition-sensitive agricultural interventions.

Unequal fund allocation and mobilization

to support nutrition-agriculture linkages: To implement joint nutrition-agriculture interventions, adequate funds must be available, and they must be available concurrently. As different United Nations agencies had different internal mechanisms for funds commitments and disbursements, it became challenging to jointly implement activities. In all programmes, nutrition-specific interventions received greater fund allocations; therefore, to better support nutrition-sensitive agriculture interventions, larger budgets must be available for these types of interventions.

Difficulty in retaining human resources: Recruiting and retaining technically qualified staff for the joint programmes was difficult in many countries. While this is not unique to joint programmes in particular, it was compounded further by the bureaucratic challenges of the recruitment processes of the various agencies. Furthermore, the staff faced challenges in reporting to multiple United Nations and government agencies with their various procedures. Staff turnover, with the time taken for recruitment, resulted in delays to programme implementation. Also, staff turnover resulted in the loss of institutional knowledge, which is not always effectively captured.

NOTES

1. The complexity of agriculture-nutrition linkages makes it challenging to measure the impact of nutrition-sensitive agriculture. This is perhaps one of the factors underlying the fact that the current evidence for the benefit of agriculture interventions remains inconclusive and scarce, despite the conceptual synergies being well recognized. In a recent review of agricultural programmes and their effect on nutrition outcomes in the *Lancet*, the evidence on agricultural interventions (biofortification, home gardening and homestead food production, aquaculture, small-scale fisheries, poultry development, animal husbandry and dairy development), with the exception of Vitamin A from the biofortification of orange sweet potatoes, failed to demonstrate an impact on stunting and other nutrition outcomes (Ruel and Alderman, 2013). However, many of the methodologies of these existing studies are not sufficiently robust, with the 2013 *Lancet* series identifying several areas for further research to address this evidence gap. Future better-designed studies will help evaluate and quantify the impact of agricultural programming on nutrition outcomes.
2. See Hawkes, Turner & Waage, 2012; Haddad, 2000; Masset et al., 2011; Hoddinott, 2012; Chung, 2012; and Fan & Pandya-Lorch, 2012.
3. For a more detailed review of the methods, findings and literature review, see FAO, 2013. An updated list of recommendations emanating from this report is available at <www.unscn.org/files/Agriculture-Nutrition-CoP/Agriculture-Nutrition_Key_recommendations.pdf>.
4. These documents included existing planning documents and midterm evaluation reports. (Final evaluations were not available at the time of the study.) Most of these documents are available at <www.mdgfund.org/content/childrenfoodsecurityandnutrition>.
5. FAO was not a signatory for the joint programmes in El Salvador and Ethiopia, although it was an implementing agency.
6. Joint programme panels were prepared by Quinn Marshall.
7. Only Afghanistan, Ethiopia, Mozambique and Viet Nam cooperated with just two key line ministries. Except for Ethiopia, all joint programmes had cooperation with the Ministry of Health (or equivalent) and the Ministry of Agriculture.
8. This is a concept explored in Levinson & Balarajan, 2013.
9. As noted in the discussion of methodology, an important caveat of these recommendations is that they are based on the designs and the evidence accumulated so far. The final evaluations of the MDG-F joint programmes are forthcoming, and only then can the impact of this approach be evaluated.

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