Guiding Principles for Linking Agriculture and Nutrition: 
Synthesis from 10 development institutions
(SUMMARY)

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This work was supported by FAO and benefited greatly from comments from the Agriculture-to-Nutrition Community of Practice (the Ag2Nut CoP), FAO staff, and authors of the guidance notes reviewed. This draft is open for public consultation.

The title page graphic is based on the frequency of word occurrences in quotes extracted from the guidance notes.
Introduction and Purpose

In the last two years, there has been a proliferation of interest in leveraging agriculture to maximize nutrition impact. Many development institutions have published guidance notes about linking agriculture and nutrition, mainly intended to assist program planners to understand and implement the linkages. Several other institutions have released public statements of their own approach to maximize nutrition impact through agricultural programs. Development institutions have also sponsored literature reviews, community conversations, and research programs to investigate the best strategies based on evidence and experience.

This synthesis aims to provide an updated and complete list of current guidance, institutional strategies, and other publications released by international development institutions and inter-agency UN bodies on maximizing nutrition impact through agriculture, and will provide an analysis of the key messages currently available. The purpose of this paper is to provide accessible information on what the international development community is saying on this topic, to underscore key points of emerging consensus and to expose differences that may be potentially confusing to implementers or which offer opportunities for further refinement of guidance and strategies. The main audience is country-level policy-makers and program-planners; a secondary audience is the international development community, which has an opportunity to amplify key messages that have been voiced independently by separate institutions. In alignment with the Rome Principles (2009), this synthesis helps to foster strategic coordination between institutions and to strive for comprehensive, sustainable agricultural, food security, nutrition and rural development programs.

Methods

Selection Criteria of Resources Reviewed:
1. Bilateral, multilateral, or NGO publication (no scientific journal articles, abstracts, or results of individual studies)
2. Official institutional publications intended for public use (no internal deliberative documents or unofficial working papers)
3. Published within the last 2-5 years generally (although a few exceptions were made for institutions where older documents are generally still consistent with current approach, and more recent material was not available)

Search methods:
1. Gathered all existing guidance documents known personally and by FAO staff.
2. Gathered statements from bilateral, multilateral, or NGO leaders given at the IFPRI conference “Leveraging Agriculture for Improved Nutrition and Health,” Delhi, Feb 2011.
3. Where organizations with a known agriculture-nutrition work program did not appear to have published statements, contacted key informants to ask for links to published statements.
4. Asked the Agriculture to Nutrition Community of Practice (Ag2Nut CoP) to review the list, and incorporated publications that were missing.
The complete list of documents identified is found in Appendix 1. A total of 45 publications were identified to date; 25 development institutions have published guidance, a statement, or explorations of the evidence linking agriculture and nutrition.1 The documents identified were then categorized into like groups. Five categories emerged:

- **Guidance notes.** The characteristic feature of a document categorized as a “guidance note” was emphasis on general principles for maximizing nutrition impact of agriculture, supported in many cases by specific examples of actions.
- **UN inter-agency guidance.** These were categorized separately because they reflect co-signed consensus across many multilateral organizations. These included the UN Standing Committee on Nutrition (SCN) and UN High-Level Task Force on Food Security (HLTF).
- **Manuals.** These focused on specific operational steps within recommended actions. Two documents were cross-filed in both the “guidance note” and “manual” category; they were both entitled “manuals,” but placed significant attention on stating and describing overarching principles as well.
- **Statements and strategies.** These were documents that publicly outlined the approach of an individual institution to incorporate nutrition into agriculture, but that were not aiming to give general comprehensive guidance on linking agriculture and nutrition.
- **Other.** Highly relevant published institutional documents that did not fall in any of the above categories were placed in the “other” category. These included four commissioned literature reviews, a community conversation, and a research program.

This initial draft of the synthesis paper only includes the 16 documents categorized as “guidance notes” and “UN inter-agency guidance,” published by 10 institutions.2 It is envisioned that subsequent drafts will include the other categories, and compare main messages between documents in the different categories. For example, it would be useful in a next draft to match recommendations with available evidence as summarized in the commissioned literature reviews. Each institution that produced guidance notes strove to include the best practices based on evidence and experience; it is assumed, therefore, that the recommendations are essentially evidence-based, but comparing the final synthesis of guidance directly to main conclusions of literature reviews would be a useful next step.

All identified guidance documents were read thoroughly and coded for themes. The minimum inclusion criterion for a theme was that it was mentioned by at least three organizations. Decisions on “lumping and splitting” themes was an iterative process. A list of potential themes was generated and populated with quotes, which then were analyzed and sometimes combined or separated, based on how much material was available for each potential theme, and how much the material overlapped with other potential themes. The final list of 20 themes is based on an

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1 The 25 institutions include: A2Z (USAID-funded project now closed), ACDI/VOCA, ACF, AED (now closed), AGRA, Bill & Melinda Gates Foundation, Bioversity International, CGIAR, Concern Worldwide, EC, DFID, FANTA, FAO, HKI, IFAD, IFPRI, INSP (Mexico), IYCN (USAID-funded project now closed), Save the Children UK, USAID, World Bank, WFP, World Vision International, and UN SCN and UN HLTF.

2 The new note from the UN HLTF, “Food and Nutrition Security for All through Sustainable Agriculture and Food Systems,” is not included in this review because it was not yet available at the time this draft was being finalized.
inductive process that resulted in messages that were conceptually distinct, although often somewhat overlapping (e.g. ensuring equitable access to resources and empowering women). There were several other potential themes which were not included, because of too little mention, or excessive overlap with other themes.

A conceptual framework of the guidance was drawn up to visualize how the themes fit together. This was a creative process not based on existing frameworks in any of the documents.

This review has sought to be comprehensive, but it does not necessarily include all institutional publications relevant to the issue of linking agriculture and nutrition. Two omissions were due to timing: both the World Bank and the UN High Level Task Force (HLTF) on Global Food Security have prepared guidance notes not yet publicly available at the time this draft was prepared. The review also did not encompass publications focused on sustainable agriculture or food security with less explicit focus on strategies to link to nutrition, although some of the recommended principles (such as targeting smallholder farmers) may overlap. (Examples include the UK Government *Future of Food and Farming* report, the World Economic Forum’s *New Vision for Agriculture*, and reports of the Global Donor Platform for Rural Development.) Likewise, reports focusing on nutrition without explicit linkage to agriculture were excluded, although several also may have contained relevant practical approaches for rural contexts.

**Summary guidance**

The recommendations in the guidance notes were synthesized into a list of 20 main messages, which broadly fit into three categories: planning a program or policy, main activities (“doing”), and a supporting set of factors based on governance, policy, and capacity. These messages were compiled from the 16 guidance notes on linking agriculture and nutrition produced by 10 development institutions: multilateral organizations (FAO, IFPRI, Bioversity International), bilateral and bilateral-supported organizations (EC, FANTA, IYCN), and NGOs (ACF, Save the Children UK, World Vision); and inter-agency UN bodies (UN SCN). A list of all documents identified is found in Annex 1.

The following 2-page summary is a distilled synthesis of the guidance. All information contained in the summary, including sub-points as well as main points, was stated by at least three institutions.
Planning

1. **Incorporate explicit nutrition objectives into agricultural projects, programs, and policies.** Traditional agriculture sector goals may have potential to yield nutrition improvements, but evidence and experience shows that explicit nutrition objectives are necessary to guide specific activities and M&E plans to maximize positive nutrition impact and minimize harm.

2. **Assess the context** to identify and build on existing efforts, knowledge, and resources. This will maximize effectiveness and efficiency of interventions and reduce negative side effects.

3. **Do no harm.** Avoid unintended negative consequences through a process of identifying potential harms, developing a mitigation plan, and setting in place a well-functioning monitoring system for timely detection of negative effects.

4. **Measure impact through monitoring and evaluation.** Measure intermediate outcome indicators as well as nutritional status impact, to be able to track positive effects and attribute them to the intervention. The most commonly recommended indicators are dietary diversity scores and stunting.

5. **Maximize opportunities through multisectoral coordination.** Nutrition improvements depend on many sectors, and translating food security and consumption impact into nutritional status often requires improvements in health, sanitation, and care and feeding practices. Coordination at least in the planning phase, and in the implementation phase where possible, will maximize the likelihood of nutrition impact from agriculture.

6. **Maximize impact of household income** on nutrition, through increasing women’s access to income-generating opportunities and discretionary control of income, and other mechanisms (e.g. frequent payments).

7. **Increase equitable access to resources** through policies and programs. At the policy level, pay particular attention to increasing access to land rights and water. Programs can facilitate access to credit, productive assets, extension services, and markets (for women in particular).

8. **Target** the most vulnerable groups, including smallholder farmers, women, and poor/food insecure households.

**Doing: Main Activities**

9. **Diversify production and livelihoods** for the improved food access and dietary diversification, natural resource management, and other purposes.

10. **Increase production of nutrient-dense foods,** particularly locally-adapted varieties rich in micronutrients and protein, chosen on the basis of context assessment and local nutrition issues.
   a. **Horticultural crops** are highly recommended, to improve micronutrient intakes and dietary diversity, increased income and women’s income control, and reduced seasonality; homestead and market-oriented production are both likely to be positive.
   b. Produce **animal-source foods on a small scale** to improve intakes of micronutrients, protein, and fat; keep production small-scale to avoid harms to the natural resource base.
   c. Promote the use of nutritious **underutilized foods** (such as indigenous or traditional crops) as powerful resources to address malnutrition.
   d. Increase **legume** production for their nutritional value (rich in energy, protein, and iron) and for their attribute of nitrogen fixation, which can improve soil fertility and yield and reduce inputs.
e. Invest in **biofortification** as a complement to other approaches.

f. Staple crop production may be necessary but insufficient for addressing undernutrition because of its limited ability to improve dietary diversity.

g. Cash crops are not recommended as a strategy likely to improve nutrition on their own, based on high risk of unintended consequences, particularly reduction in food security and dietary quality; mitigation strategies should go along with cash crop production.

11. **Reduce post-harvest losses and improve processing** to increase and prolong access to and consumption of micronutrient-rich foods, to preserve or increase nutrient content of food, increase income and profit margins, and to improve food safety. Solar drying and fortification are highly-recommended processing techniques.

12. **Increase market access and opportunities.** Social marketing and demand creation for foods that smallholders have a comparative advantage in producing can be a powerful tool.

13. **Reduce seasonality of food insecurity** through diversification and use of locally-adapted varieties throughout the year, improved storage and preservation, and other approaches.

…**and all the above approaches should do these three things as well:**

14. **Empower women,** the primary caretakers in households, through (i) increased discretionary income; (ii) improving women’s access to extension services, financial services, technology, inputs, markets, and information; (iii) avoiding harm to their ability to care for children; (iv) investing in labor and time-saving technologies targeted to women; (v) adding program components to enable high-quality child care; and (vi) advocating for policies to support women’s rights to land, education, and employment.

15. **Incorporate nutrition education** to improve consumption and nutrition effects of interventions. Develop a concise set of clear, actionable messages and strategies based on an understanding of local perceptions, and barriers and opportunities to behavior change. Messages often involve promoting consumption of locally-available and nutrient-dense food, understanding nutritional requirements of different family members, and improving food safety. Employ agricultural extension agents to communicate nutrition messages as feasible.

16. **Manage natural resources** for improved productivity, resilience to shocks and adaptation to climate change, and increased equitable access to resources through soil, water, and biodiversity conservation.

**Supporting**

17. **Improve policy coherence** supportive to nutrition, so that one policy does not work against another policy or program. Food price policies, subsidies, and trade policies sometimes have counterproductive effects on nutrition and may need reform. Pro-poor policies including land reform, infrastructure-building, and social protection policies create an enabling environment for nutrition improvement.

18. **Improve good governance for nutrition,** by drawing up a national nutrition strategy and action plan, implementing nutrition surveillance, and increasing staff capacity.

19. **Build capacity** in ministries at national, district, and local levels, and increase nutrition staff.

20. **Communicate and continue to advocate for nutrition.** Disseminate impact results across sectoral boundaries and translate them into policy-relevant messages for effective program and policy changes.
Conceptual framework of guidance

**Planning**

- Context Assessment
- Nutrition Objectives
- Maximize Opportunities:
  - Multisectoral coordination
  - Impact of income
  - Equitable access to resources

**Doing**

- Diversify Production and Livelihoods
  - Produce more nutrient-dense foods including vegetables, fruits, animal source foods, underutilized foods, legumes, and biofortified crops; specifics depend on context
  - Reduce post-harvest losses and improve post-processing
  - Increase market opportunities
  - Reduce seasonality
  - Women's Empowerment
  - Nutrition Education
  - Management of Natural Resources

**Supporting**

- Policy coherence, Governance and Capacity-building, Communication and Advocacy
Summary conclusions

Current guidance shows a high degree of alignment between institutions

It is striking how much overall agreement there was on main principles for reaching nutrition. This was true even though many institutions published guidance primarily for the use of their staff in their own programs and investments. Disagreement by omission was not considered, because of the wide range of length/scopes of the guidance notes (1 to 100 pages), omission could simply have been due to limited page space. The 20 main messages were each supported by a majority of the institutions, not just the minimum of three for inclusion, which demonstrates a strong convergence around a discrete set of principles. Some stakeholders have voiced concern over the empirical evidence base underlying actions to increase nutrition impact from agriculture programs, but the fact that a majority of international development institutions independently recommend very similar approaches is itself a strong justification to increase action around these principles. Policy decisions often must be made without the benefit of airtight scientific evidence; or else the status quo continues, which has been clearly shown to be inadequate for addressing nutrition. There is no good argument for inaction when the international development community is so well aligned on many actionable principles to maximize nutrition impact of agricultural investments. As new evidence is generated from projects implementing the current guiding principles, the guidance may be refined or revised in the future.

Apart from the overall high degree of alignment, there are some specific points where recommendations may differ due to institutional priorities or experience in different contexts:

- How much to prioritize homestead food production for household consumption or for market purposes, either of which could theoretically result in improved diets.
- How to target agricultural interventions to the needs of different livelihoods groups; interventions that most benefit one may be slightly less beneficial to the other (though double wins may also exist e.g. production by smallholders and processing or retail by landless laborers).
- How much emphasis to place on three kinds of production in particular (within the recommendations on what to produce): How much emphasis to place on staple crops (because of their utility for energy intakes but potential competition with more nutrient-dense food production), biofortified crops (notes were quite positive but several emphasized that biofortification needed to be accompanied with other strategies, with ACF representing a view opposed to any genetic modification), and animal-source foods (which have characteristics that may be highly beneficial in some circumstances, and harmful to health and the environment in others).
- How much to depend on agricultural extension agents or program agents to deliver nutrition-relevant information, and how much to collaborate with or depend on health staff to deliver coordinated messages.
- Whether multisectoral collaboration should involve joint implementation of projects, or simply joint planning (e.g. for coordinated messages and referrals).
What is missing from the current guidance

While the recommended principles are well-founded from a nutritional point of view, greater collaboration with agronomists, ago-economists and other professionals from the agriculture sector in refining them and making them more actionable may be helpful. So far most of the authorship of these guidance notes is based in nutrition. Increasing the substantive contributions from the agriculture side may result in guidance that speaks the agriculture “language” and that is more aligned with the main priorities and incentives of professionals working in the agriculture sector. For example, only three notes mentioned market viability as a criterion for production choice – which, next to yield, is a fundamental principle for the agriculture sector. Nutritionists may wish to increase guidance on how to increase market viability of certain nutritious foods, e.g. indigenous crops or biofortified crops, so that agriculture professionals are better able to act on advice to promote them. Greater inclusion of agriculture staff may prompt a larger discussion of production/income/nutrition trade-offs, and may expose some misalignment in preferred approaches to reach nutrition. For example, in the Interagency Report to the G20 on Food Price Volatility (June 2011), agricultural economists from FAO, IFAD, IMF, OECD, UNCTAD, WFP, the World Bank, WTO, IFPRI, and the UN HLTF offered annexed advice on increasing resilience of agriculture through nutrition, and discussed only biofortification as a strategy, specifically dismissing dietary diversification strategies as being too long-term. That is the opposite emphasis as compared to the guidance notes, which offer multiple strategies to achieve dietary diversity, and which consider biofortification a complementary approach.

Nutritionists need to work together with agriculturalists in a sincere and open dialogue about how to mesh priorities and approaches, and to raise awareness about the determinants of malnutrition and best practices to achieve nutrition results; advice that is omnipresent throughout the guidance notes. This process, of course, requires partnership from the agriculture side as well, which may be gained through continued communication and advocacy about nutrition.

One area that would particularly benefit from agriculture sector input is the recommendation to increase marketing opportunities. The guidance notes discussed the importance of livelihoods and increasing market access, for equity and income generation, and also because while some farmers may produce nutritious foods solely for home consumption, they are more likely to adopt them if there is a market incentive. Specific recommendations included the need for social marketing and demand creation, as well as some sparse advice for supporting women-controlled crops, farmer organizations, and attention to infrastructure. Advice on exactly how to improve market access for smallholders and other vulnerable groups, however, was weak. The agriculture sector may prefer to assist vulnerable households in subsistence/home production activities, because investing in market access programs is too risky or too involved. Smallholders in many cases need intensive training in business principles such as budgeting, production calendars, and consumer demand. They may also need lengthy assistance from projects to broker deals with lucrative markets for them, in part because large buyers may not be willing to consider contracts with smallholders without an insurer, and smallholders may not be able to survive financially due to infrequent payments. There are a host of marketing problems which marketing specialists and agricultural economists are best equipped to handle; incentives for investing in market access assistance for smallholders is an important topic that needs further discussion and partnership with the agriculture sector.
Another area that would benefit from more concrete and specific guidance, based on interaction with agricultural economists, is on food price policies and other food and agriculture policies in the “policy coherence” theme. Most smallholder farmers, a commonly recommended target population, are net buyers of food; and urbanization is accelerating. The relative prices of foods affect likelihood of consuming a diverse diet; more work is needed on elasticities of demand for nutritious foods, supply constraints, and effective food policies and regulations to improve dietary quality.

Costing of recommended interventions is currently missing. The most important costing may be to identify the costs of agriculture programs that include nutrition objectives, for planning and budgeting purposes. Cost benefit analyses that look at the effects of “option A” (an approach with nutrition considerations) and “option B” (a standard approach) would also be helpful. Neither pure costing nor cost benefit analyses have been done; even Save the Children UK did not attempt to cost its agriculture recommendations within the guidance note “An eight-step, costed plan of action.”

Many guidance notes recommended agricultural extension agents as a channel for nutrition-relevant information, but depending on agricultural extension agents for the wide array of nutrition messages needed may not be feasible; greater attention is needed to who will deliver nutrition education in the context of agricultural programs. More evidence and experience from various contexts would be useful to identifying effective combinations of delivery channels. Further, relying on agricultural extension agents requires that they exist in sufficient numbers in the first place. In many countries, they do not. An enhanced role of agricultural extensionists in nutrition education probably needs to be combined with advice to simply increase funding allocations for agricultural extension in general. This includes increases in quality of training, including nutrition, as well as quantity of personnel (capacity building); remuneration may also need increase in some cases to provide an incentive for skilled people to join and to provide high-quality assistance.

Two areas related to women’s empowerment lacked a full discussion of the chance for unintended consequences that could unintentionally result in disempowerment for women. One was promoting market-oriented production of women’s crops (e.g. horticultural or indigenous crops) for the purpose of empowering women through enhanced income generation, which could potentially have the unintended consequence of shifting control over the crops to men. This has been observed in practice, but how to ensure that women maintain production and income control, even when yields and profits increase, was not discussed within the recommendations. One possibility is that nutrition education – recommended by all institutions – and extension can address roles and responsibilities of men and women. They can highlight the benefits to the household from women’s income, taking a more proactive role in maintaining women’s control over production and sale. Context assessment may also prove useful for exploring the likely impact of marketing women’s crops.

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3 Credible cost-benefit analyses have been done for biofortification, reaching the top of the Copenhagen Consensus list, for the outcome of improved micronutrient intake.
The ubiquitous advice to recognize women’s role in providing child care also requires careful operational thought and action. While the guidance generally was very supportive of approaches to allow women to participate both in economic opportunities while being able to feed their children well, there is a fine line between protecting women’s ability to care for their children and prioritizing child care over other choices women may make. Similar to anti-discrimination and maternity leave policies in high-income countries, it is important that the recommendations avoid an unintended consequence of projects passing over women for lucrative opportunities because they are assumed to be unable to take them on due to child care. Successful approaches that increase women’s economic empowerment while maintaining or improving child care practices need to be documented.

Although the recommendations stressed the importance of context assessment, currently it is rare to find adequate funding, staff, and time for achieving that goal in most programs. Interventions are frequently designed in proposals without comprehensive understanding of cultural context and opportunities for collaboration with existing initiatives. Requests for proposals may need to be reoriented to commit more funding, time, and staff to context assessment before the program clock (3 years, 5 years, etc) starts ticking. Some existing manuals describe participatory methods for rapid assessment at low cost (found in Annex 1), and these methods may increase willingness of donors and program staff to invest in context assessment. Local NGOs sometimes specialize in participatory assessment, and large donor projects could sub-contract with them for the purpose of context assessment. Improved access to information on the existence and capacity of local NGOs would be helpful.

The recommendation to do no harm was near universal, and processes to operationalize that advice have advanced recently. More work is needed, however, to help agriculture projects predict potential harms likely for their specific region and project, and to incentivize that thoughtful process in the planning and monitoring stages. While the guidance notes listed many general classes of harm (such as reductions in women’s time), this recommendation is difficult to generalize because it is context-dependent, and a likely harm in one place may be a non-issue elsewhere.

The constraint of inadequate incentives is also true for the advice to collaborate multisectorally. All guidance notes were supportive of multisectoral collaboration, at least in planning stages of projects. Although the guidance notes fully acknowledged the difficulty of collaboration, advice was generally weak on improving incentives for effective collaboration, even in planning stages. FAO’s “Joint Planning” document (in the “manuals” category) offers operational guidance for a workshop approach, and is an important tool to accompany the advice.\footnote{There is also a new IFPRI book, “Working Multisectorally in Nutrition” (Garrett and Natalicchio eds., 2011).}

Overall, the guidance notes provide a comprehensive, well-founded set of principles for maximizing nutrition impact of agricultural policies, projects, and programs. How to implement the guidance effectively was generally not addressed substantially, although that is probably due to the inclusion of only “guidance notes” in this synthesis draft (not operational manuals). In the few instances where organizations gave “how-to” advice (such as using positive deviance sessions as a tool for context assessment, women’s empowerment, and nutrition education), it...
was particularly noted in the discussion of guidance by theme (see full document). Many tools exist that would assist with implementing the guiding principles, although they are not necessarily easily accessible, and may not be adequate for needs in varying contexts. Beyond the project level, operational guidance or a distillation of experience on how to strengthen nutrition governance and alignment among sectors is needed. Research in implementation science can help to identify approaches and tools that work.

There is likely a limit, however, to what pre-written tools can do, for two reasons: firstly, that the specific “how to” depends greatly on the context (and most organizations implicitly recognized this, in spending so much page-space discussing the importance of context assessment and how to do it). Secondly, capacity building training is most effective in person, with written material only as a support. Absorbing and understanding even the principles in this synthesis paper require time and familiarity with nutrition determinants. Some of the guidance documents included an introductory primer on nutrition, which is helpful as reference material, but deep learning from practitioners cannot be expected without face to face interaction and discussion. Therefore, in addition to operational tools and implementation science research, a recommendation of this synthesis is that the principles be communicated through interactions, for example in workshops, and iterative feedback on country and program plans. Development institutions are encouraged to provide such support.

Next steps

The most important next step is to include the agreed-upon principles in forthcoming agriculture programs and learn from the outcomes. This requires commitment from the highest levels of governments and development institutions to link agriculture and nutrition, which has thus far been inhibited by four main constraints: (i) information on what to do, (ii) how to do it, (iii) how much it will cost (per benefit gained), and (iv) how it will be supported or rewarded.

The first constraint to action so far has been a perceived lack of clarity in guidance and evidence for nutrition-friendly agriculture. Interested agriculture professionals have been unclear on what to do to improve nutrition through agriculture, and the nutrition community on the whole has not yet come together around common advice. This synthesis is a step to fill that gap, and the finding of remarkable similarity of guiding principles among guidance notes independently published by 10 international development institutions is encouraging. A next step would be for these and other organizations come to consensus around guiding principles, reached in partnership between the nutrition and agriculture professionals.

A second constraint apart from “what to do” is how to do nutrition-friendly agriculture. Better guidance on operational best practices, particularly around improving market access and ensuring that women benefit, would be of great benefit to include nutrition in agriculture projects. Recommendations specific to project types, value chains for specific crops, and agroecosystem types may also help.

The lack of costing and cost benefit information is another constraint to serious buy-in from agriculture sector staff who want to be sure to spend scare resources wisely. Cost and impact
information (including nutrition impact, productivity, and economic impact) should be gathered wherever possible.

A fourth constraint relates to how efforts to link agriculture to nutrition will be supported and rewarded by governments and institutions. Food and agriculture policies supportive of healthy diets and nutrition would help to make nutrition-friendly agriculture the lucrative option, which would be by far the most powerful way to increase action. Support for capacity in agricultural extension as well as nutrition training and staffing at all levels would increase the feasibility of actions to improve nutrition through agriculture. This requires appropriate investments be made in institutional development related to nutrition in the agriculture sector, an area which has so far received very limited development support. Institutional incentives for multisectoral collaboration, context assessment, and a planning process to avoid nutritional harm, would increase the chances of their happening.

If consensus around key guiding principles can be reached, and the principles incorporated into agriculture programs now, including appropriate monitoring and evaluation, then the result will be a new generation of evidence that will improve knowledge on operational “how-to” best practices, costs, and impact – and may result in a revision of guiding principles. This new knowledge would further improve ability to plan for and include nutrition outcomes in agriculture projects, propagating a virtuous cycle of knowledge, commitment, and action.

**Figure 1. Virtuous cycle of knowledge, commitment, and action based on next steps**

- **Knowledge**
  - Consensus around guiding principles (*what to do*)
  - Better operational guidance (*how to do it*)
  - Costing and cost benefit information – includes better evidence on impact

- **Commitment**
  - Agriculture sector buy-in

- **Support**
  - Food and agriculture policies supportive of nutrition
  - Increased capacity in agricultural extension and nutrition
  - Incentives for multisectoral collaboration, context assessment and planning

- **Action**
  - Principles incorporated
ANNEX 1: ALL DOCUMENTS IDENTIFIED

Summary:
A total of 45 publications were identified to date; 25 development institutions have published guidance, a statement, or explorations of the evidence linking agriculture and nutrition. These fall into the categories of “guiding principles and operational guidance” for increasing nutrition impact of agriculture programs; UN inter-agency guidance; “manuals” to assist program staff in implementing the principles; “statements and strategies” describing approaches of individual institutions; and “other” including four academic reviews, a community conversation, and a research program. The papers identified in each category are identified below.

Guidance notes (10 institutions)

ACF International (Action Against Hunger)
“Maximizing the nutritional impact of food security and livelihoods interventions: a manual for field workers” (Geraldine Le Cuziat and Hanna Mattinen) July 2011

Bioversity International
“Improving Nutrition with Agricultural Biodiversity: a manual on implementing food systems field projects to assess and improve dietary diversity, and nutrition and health outcomes” Oct 2011

EC (European Commission)
“Addressing Undernutrition in External Assistance: an integrated approach through sectors and aid modalities.” September 2011
Note: Sections 2.6-2.7 are most relevant: “Improving Nutrition through Food Security” and “Improving Nutrition through Agriculture”
http://capacity4dev.ec.europa.eu/topic/fighting-hunger

FANTA (Food And Nutrition Technical Assistance - USAID)
http://www.fantaproject.org/downloads/pdfs/NutAg_Mar01.pdf
Background paper: “Increasing the Nutritional Impacts of Agricultural Interventions” (Patricia Bonnard) 1999

FAO (Food and Agriculture Organization of the UN)
“Assisting the food and agriculture sector in addressing malnutrition” 2010
“Investing in Food Security: Linking Agriculture to Nutrition Security” 2009
“Incorporating Nutrition Considerations into Development Policies and Programmes” 2004
Note: p44-46 is most relevant: Policies and programs in agriculture.
“Incorporating Nutrition Considerations into Agricultural Research Plans and Programmes” 2001
http://www.fao.org/docrep/005/y1181e/Y1181E00.htm

IFPRI (International Food Policy Research Institute)
“Leveraging Agriculture for improving nutrition and health outcomes: The way forward.” 2011
http://2020conference.ifpri.info/publications/the-way-forward/
This piece has also been published as Ch.23 in Reshaping agriculture for nutrition and health
edited by S Fan and R Pandya-Lorch, IFPRI 2012 (Shenggen Fan, Rajul Pandya-Lorch, and
Heidi Fritschel)
http://www.ifpri.org/publication/reshaping-agriculture-nutrition-and-
health?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+ifpri-
agriculture-health+%28New+from+IFPRI+on+agriculture+and+health%29

IYCN (Infant and Young Child Nutrition – USAID)
“Achieving Nutritional Impact and Food Security through Agriculture: Fact sheet” Feb 2011
http://www.iycn.org/resource/?resource_categories=agriculture-
toolshttp://iycn.org/files/FINALIYCNAgricultureFactSheet022311.pdf
“Incorporating Household Nutrition and Food Security objectives into proposed agriculture
projects: Illustrative guidance” Feb 2011
http://www.iycn.org/agriculture.php

Save the Children, UK
“A Life Free from Hunger: Chapter 4: Harnessing the Potential of Agriculture to Tackle
Malnutrition” 2012
http://www.savethechildren.org.uk/resources/online-library/life-free-hunger-tackling-child-
malnutrition
“Hungry for Change: An eight-step, costed plan of action to tackle global hunger” 2009
Note: ”component 3” of the plan is about nutrition-friendly agriculture

World Vision International
“Growing Healthy Children: Addressing child undernutrition through agriculture.” (Sheri Arnott)
Feb 2011
http://voices.worldvision.ca/wp-content/uploads/2012/04/Food-Sec-Nutrition-Discussion-Paper-
“Growing healthy children: Key Lessons from evaluations of World Vision's integrated
agriculture-nutrition-health programming” (Kioko Munyao) Feb 2011

World Bank
Addressing Nutrition through Multisectoral Approaches: guidance note for agriculture and rural development

To be released 2012

Background paper: “Prioritizing nutrition in agriculture and rural development projects: Guiding principles for operational investments” (A Herforth, A Jones, P Pinstrup-Andersen)

To be released 2012

UN inter-agency guidance (2 inter-agency bodies)

UN SCN (Standing Committee on Nutrition)
“6th report on the world nutrition situation: Progress in Nutrition” 2010
Chapter 4: Sustainable Food and Nutrition Security
Note: the 6th report (SCN’s most recent) focuses on two priority areas: maternal nutrition (Ch 3), and agriculture as central to improving nutrition (Ch4).

UN HLTF on Global Food Security (High Level Task Force)
“Food and Nutrition Security for All through Sustainable Agriculture and Food Systems” March 2012
“Updated Comprehensive Framework for Action (CFA)” 2010

Manuals (5 institutions)

ACDI/VOCA
Set of four “Nutrition Integration Fact Sheets” on integrating nutrition into value chains for legumes, vegetables, maize, and rice, accompanied by a nutrition primer. April 2012
Not yet available online

ACF International
“Maximizing the nutritional impact of food security and livelihoods interventions: a manual for field workers” July 2011

Bioversity International
“Improving Nutrition with Agricultural Biodiversity: a manual on implementing food systems field projects to assess and improve dietary diversity, and nutrition and health outcomes” Oct 2011
FAO
“Guidelines for joint planning for nutrition, food security, and livelihoods: Agreeing on causes of malnutrition for joint action.” May 2011
“Protecting and Promoting Nutrition in Crisis and Recovery” 2005
“Guidelines for preparing micro-project proposals to improve food security and nutrition” 2002
http://www.fao.org/DOCREP/005/y2829e/y2829e00.htm
“Guidelines for participatory nutrition projects” 1993; currently being updated
http://www.fao.org/docrep/v1490e/v1490e00.htm#TopOfPage

IYCN
“Nutritional Impact Assessment Tool: a tool for maximizing the positive impacts of agricultural interventions on nutritionally vulnerable and food insecure populations” September 2011
http://www.iycn.org/resource/?resource_categories=agriculture-tools

Statements and strategies (8 institutions)

AGRA (Alliance for a Green Revolution in Africa)
“Transforming agriculture, nutrition, and health linkages” (Ngongi) Feb 2011

BMGF (Bill & Melinda Gates Foundation)
“Our ultimate goal is to reduce hunger and poverty for millions of poor farm families in Sub-Saharan Africa and South Asia. We believe the best way to do this is by helping small farmers grow and sell more food so they can improve their nutrition, become self-sufficient, and build better lives.”

Bioversity International
“Resilient Food and Nutrition Systems: Analyzing the role of agricultural biodiversity in enhancing human nutrition and health” 2011

Concern Worldwide
“Realigning Agriculture to Integrate Nutrition (RAIN) Project” (Tom Arnold) Feb 2011
http://2020conference.ifpri.info/files/2010/12/20110211parallel1B3_Arnold_Tom_note.pdf

HKI (Helen Keller International)
“Homestead Food Production and Nutrition Education” (Victoria Quinn) Feb 2011
IFAD (International Fund for Agricultural Development of the UN)
Strategic Framework 2011-2015: Enabling poor rural people to improve their food security and
nutrition, raise their incomes and strengthen their resilience
http://www.ifad.org/sf/index.htm
http://www.ifad.org/sf/strategic_e.pdf

USAID (United States Agency for International Development)
Feed the Future Guide 2010
Note: p13-14 outlines FTF approach to reducing undernutrition through agriculture
investments.
http://www.feedthefuture.gov/guide.html
Feed the Future Indicator Handbook: Definition Sheets
Delivering Improved Nutrition: Recommendations for Changes to U.S. Food Aid Products and
Programs (Webb, P., B. Rogers, I. Rosenberg, N. Schlossman, C. Wanke, J. Bagriansky, K.

WFP (World Food Programme of the UN)
“Enhancing nutrition along the value chain” (Ken Davies, P4P) Feb 2011

Other
(4 commissioned literature reviews, 1 research program, 1 community
dialogue)

DFID-commissioned review (University of London):
“A systematic review of agriculture interventions that aim to improve nutritional status of
http://www.dfid.gov.uk/R4D/PDF/Outputs/SystematicReviews/Masset_etal_agriculture_and_nutrition.pdf
http://eppi.ioe.ac.uk/cms/LinkClick.aspx?fileticket=QbYFOlTyugs%3D&tabid=2974&mid=5583
Masset E, Haddad L, Cornelius A, Isaza-Castro J. Effectiveness of agricultural interventions that
http://www.bmj.com/content/344/bmj.d8222

IYCN
“Nutrition and Food Security Impacts of Agriculture Projects: A review of experience” (Jim
Levinson) Feb 2011
http://www.iycn.org/agriculture.php
Micronutrient Forum, USAID, A2Z, AED, IFPRI, INSP
http://www.micronutrientforum.org/innocenti/Leroy%20et%20al%20MNF%20Indirect%20Selected%20Review_FINAL.pdf

World Bank/IFPRI
“Pathways from Agriculture to Nutrition” 2007

AED and FAO
“Deepening the Dialogue: Agriculture and nutrition collaboration to enhance global food security: summary report from the Open Forum held on Nov 1, 2010”

CGIAR (Consultative Group on International Agricultural Research)
CRP4: “Agriculture for Improved Health and Nutrition” 2011