U.S. Agency for International Development

Bureau of Democracy, Conflict, and Humanitarian Assistance

Office of Food for Peace (FFP)

Technical References for FFP Development Food Assistance Projects

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List of Acronyms

FFP	Office of Food for Peace
DRR	disaster risk reduction
MCHN	maternal and child health and nutrition
M&E	monitoring and evaluation
NRM	natural resource management
WASH	water, sanitation, and hygiene
USAID	United States Agency for International Development
RFA	Request for Applications
IEE	Initial Environmental Examination
CCVA	climate change vulnerability assessments
GEMS	Global Environmental Management Support
EMMP	Environmental Mitigation and Monitoring Plan
ADS	Automated Directives System
IPTT	Indicator Performance Tracking Table
CFR	Code of Federal Regulations
GBV	gender-based violence
TOPS	Technical and Operational Performance Support
IFPRI	International Food Policy Research Institute
FAO	Food and Agriculture Organization of the United Nations
MEAS	Modernizing Extension and Advisory Services
ODI	Overseas Development Institute
U.N.	United Nations
SUN	Scaling Up Nutrition
IYCF	infant and young child feeding
CMAM	Community Management of Acute Malnutrition
SAM	severe acute malnutrition
UNHCR	United Nations High Commissioner for Refugees
WFP	World Food Programme
HIV	human immunodeficiency virus
CHW	community health worker
APC	Advancing Partners & Communities
NACS	Nutrition Assessment, Counseling, and Support
ECD	Early Child Development
UNICEF	United Nations Children's Fund
ToC	Theory of Change
LogFrame	Logical Framework
FTF	Feed the Future
USG	United States Government
O&M	operations and maintenance
CLTS	community-led total sanitation
POU	point-of-use
EE	environmental enteropathy
MHM	menstrual hygiene management

I. Introduction and Core Operational Principles

This document is being developed to assist potential partners access technical information and emerging best practice relevant to the sectors and activities USAID addresses with its Food for Peace non-emergency resources and Feed the Future (FTF) Community Development Funds. With the exception of specific guidance for the development of mandatory gender and environmental analysis, and monitoring and evaluation, this is not a "how to" manual. The drivers of vulnerability to food and nutrition insecurity vary within and between countries, and call for a context-specific vision of change. This document attempts to provide a toolkit to assist partners as they develop that context-specific vision and plans to operationalize it. .

At a midway point in the Office's development of a new FFP strategy, this document also proposes a set of core operational principles for consideration during the design of new FFP development activities. These principles reflect important process and program trends that are occurring across the Agency, including the Country Development and Cooperation Strategy process; institutionalizing the concept of resilience; a renewed focus on *inclusive* growth as a means to end extreme poverty; USAID Forward's commitment to supporting local systems; and a growing recognition of need to take multi-sector and mutually reinforcing approaches to reducing malnutrition. In many ways FFP development programs have anticipated each of these trends, and they are increasingly seen as critical components of integrated Mission and Agency strategies to build resilience, reduce humanitarian need, address the root causes of malnutrition, and contribute to measurable gains in poverty and hunger reduction.

Food for Peace welcomes your thoughts, suggestions and input on these operational principles, and on the technical reference chapters that follow.

Core Operational Principles

1. **Use evidence-based design drawing from best practice.** These technical reference chapters, FANTA's FAFSA II report, as well as the wide range of resources available through FFP's learning platform, the Food Security and Nutrition Network, sponsored by the Technical Operational and Performance Support (TOPS) mechanism, and the Bureau for Food Security (BFS) learning platform, Agrilinks, are a few of many sources of best practice for food security programming.

2. **Partner with others for complementarity, impact, and sustainability.** In countries with an existing CDCS, FTF, and/or Resilience strategy, Country Specific Information will provide information that partners can use to ensure that new FFP activities contribute to, enhance, and/or leverage other USAID poverty reduction and food and nutrition security efforts by deepening the reach of USG assistance to chronically vulnerable populations. Other donor, private sector, and government-supported activities not specifically reflected in Country Specific

Information may also provide effective partnership opportunities, and should be explored.

3. **Promote real-time applied learning, collaboration, and adaptive management.** A strong project learning strategy will be focused, relevant to identified needs and opportunities, and integrated with implementation and management processes. It will ensure responsive, adaptive management and improved project implementation through analysis and application of formal learning from performance monitoring, assessments, and evaluation results, as well as informal learning from dialogue, consultation, and reflection processes.

4. **Support the enfranchisement, aspirations, and agency of women and youth.** Women face disproportionate economic, social and health challenges in the countries and communities in which FFP programs are implemented. In many of the same communities, the promise of a "demographic dividend" is far from being realized, and a burgeoning number of youth are landless, inadequately educated, and unemployed. Strategies to engage women, youth, men and elders as change agents for gender equality and increased educational and economic opportunity should contribute to any vision of improved and sustained food and nutrition security.

5. **Leverage all pathways to better nutrition**. The Lancet's maternal and child nutrition series (Lancet, 2008, 20013), as well as evidence emerging from USAID's nutrition innovation lab and other research efforts all point to the importance of looking for opportunities to achieve better nutritional impact through our "nutrition-sensitive" as well as "nutrition-specific" investments. Community-based FFP development programs are uniquely positioned to do this strategically— with the potential of incorporating (and demonstrating) consistent nutrition messages in layered agriculture, WASH, livelihood, basic literacy and numeracy, and vocational training—in addition to nutrition specific maternal and child health and nutrition activities.

6. **Identify opportunities for transformation within existing systems.** Prospects for sustainable, broad-based change are enhanced by supporting and strengthening existing community, private sector, and public sector mechanisms for product and service delivery, and by supporting the legitimacy and accountability of government institutions. Activities that enhance equitable household and community access to goods and services, without creating redundant and unsustainable delivery systems will increase the probability of meaningful change and impact. USAID's new nutrition strategy calls for increased investment in health system strengthening and capacity building to support host-country efforts to "Scale-Up Nutrition" (SUN). Working at a community level, FFP partners are well-positioned to assist health authorities identify and address constraints and opportunities, pilot new approaches, demonstrate impact, and drive the scale up of proven activities.

7. **Promote innovative approaches and technologies to achieve "last-mile" service delivery**. Even in countries experiencing rapid agricultural and economic gains, communities and households targeted by FFP activities face multiple access constraints to both public and private services—they represent "the last mile". The challenge for FFP partners is to identify pathways and technologies that will increase the inclusivity of economic growth by improving access of the extremely poor to newly emerging services and opportunities.

8. **Balance facilitative approaches with well-designed food/resource transfers.** The vulnerable communities and households served by FFP projects are not simply "food poor"—they also tend to labor, income, and asset poor. They are less likely to be able to access or benefit from agriculture extension and agriculture investments, less likely to be able to keep their children in school, and more likely to require humanitarian assistance on a periodic, or even regular basis. Food assistance can help to provide such households with the stability required to envision and reach for change, and it can help them access the tools they'll need to achieve it. Understanding the role of food assistance as a resource transfer can help to ensure that it is used creatively and appropriately as a means to enable communities and households to make strategic—transformational-- choices for themselves, reducing the likelihood of dependence or short-term impact.

9. **Assume that shocks will occur.** FFP's development activities target many households and communities that are vulnerable to repeated shocks—whether climatic (e.g. drought), social (e.g. conflict over water or pasture) or economic (e.g. price fluctuations). While the long-term objective of an FFP activity may be to sustainably reduce vulnerability to one or more of these shocks, its design should reflect the assumption that a shock (or shocks) will occur during the life of the program.

II. Mandatory Program Design Elements

A. Theory of Change

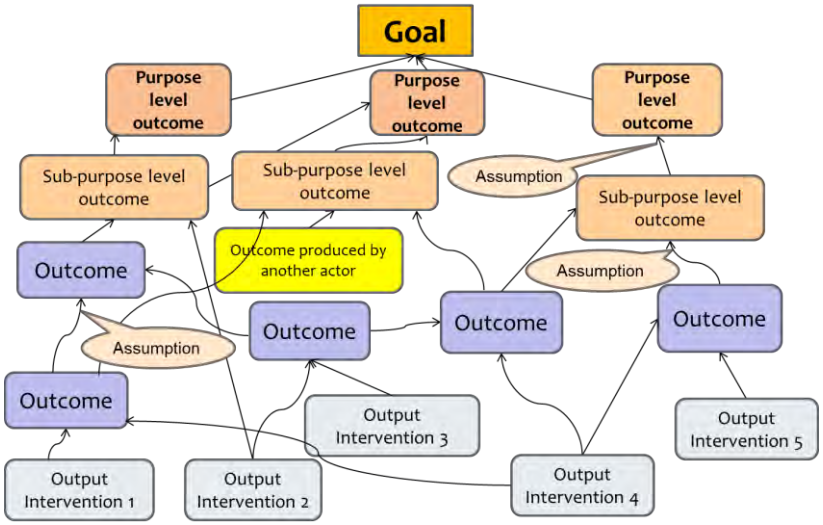
Overview

A Theory of Change (ToC) describes the hypothesized series of changes that are expected to occur in a given context as the result of specific activities. ToC makes explicit how a project design team thinks outputs from their activities will interact with other concurrent activities and contextual conditions to stimulate or enable a series of outcomes that will ultimately lead to the achievement of desired objectives. That is, it describes in detailed steps, the project design team's expectations for how the activities' successful implementation will interact with the conditions and outcomes produced by other actors to stimulate gradual change. Most initiatives have multiple pathways that eventually converge at or before reaching the long term goal.

The process to define a ToC starts from a goal and then work backwards – describing preconditions that must exist before the goal can be achieved, then describing what other conditions have to be met before these proximal conditions can exist, then the conditions that must preceded this second level of conditions, etc., working backwards until one reaches conditions that would be immediate outcomes or outputs of an action or activity.

Starting from a problem analysis using a problem tree approach significantly facilitates the development of a theory of change. In a problem tree approach, the project design team first identifies the main problem that the project would address, and then works backwards identifying the main causes of the problem, then the second level of causes and so on, until the design team reaches to the root causes that the team believes and the evidence suggests that addressing the causes will have a domino effect to address the main problem. The next step is to convert the problem tree to an objective or outcome tree. This process should result in multiple streams of outcomes leading to the

Figure 1: A simplified illustration of a ToC diagram



goal. The project team then identifies all necessary and sufficient outcomes to achieve the goal and the assumptions the team is making for each level of outcomes. A ToC includes the hypothesized series of necessary and sufficient outcomes/pre-conditions[1] that are expected to occur in a given context as the result of specific activities regardless whether all of these activities are implemented by a particular project or not. In designing a project, an organization then identifies and selects a set of activities to influence the root causes based on the comparative advantage of the organization, scope of the project, feasibility, and the experience and evidence. It is likely that a single project may not implement all of the interventions required to assure outcomes in the ToC, but the theory must identify where external action is necessary and explain how the project will help ensure that other actors undertake these actions in the required timeframe.

For example, to develop a ToC for improved household food security, one of the conditions may be improved household access to nutritious foods. Before this can be achieved households need adequate income and they need to choose to spend enough of that income to buy nutritious foods that they are not able to produce on their own. Operating under an assumption that women are more likely to choose to spend short household resources on food than men, a pre-condition to this choice is for women to have a part in the decision about use of household funds. Hence, an activity could be training to empower women and sensitize men so that both men and women participate in household decisions about the use of household funds. In this example, the ToC would include Improved Household Food Security, Improved Access to Nutrition Foods by Vulnerable Households, Gender equity in Household Decision Making about Expenditures, Women Empowered to Participate in Household Decisions and Men Sensitized to the Benefits of Women Participating in Household Decisions would all be in the chain between training activities and the final goal. A complete ToC would define all of the necessary and sufficient conditions to effect change at each level, including, for example, policy and institutional requirements, systemic conditions, and complementary activities. The more complete the ToC, the more likely the project will produce the desired changes and the more useful the ToC will be to internal learning. The appropriate “breadth” and “depth”, depends on the purpose[2], that’s why a ToC needs to be periodically revised.

A ToC includes a graphic presentation[3] that pictorially depicts the pathways of change, with multiple intermediary steps connected by directional arrows that show how outcomes interact to gradually advance toward the goal. Interventions necessary for movement from one outcome to another are inserted along the relevant arrows.

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[1] Outcome and pre-condition are used interchangeably in this document. A pre-condition is necessarily an outcome necessary to achieve the next level outcome.

[2] SCOPE: How Much Should a Good Theory Account For?” http://www.theoryofchange.org/pdf/scope.pdf

[3] ToC Online or “TOCO” is a free easy-to-use tool for creating a Theory of Change diagram. It provides a flexible drawing canvas for building and editing a diagram.

The ToC diagram should include: the goal, all necessary and sufficient outcomes/pre-conditions including the outcomes produced by other stakeholders connected by directional arrows, outputs and assumptions. It is better to use different color schemes for outcomes produced by external actors. As the FFP development projects aim to achieve food security goals and the underlying causes of food insecurity are multi-sectoral, multi-dimensional and complex, the theories of change diagram can become too large to fit into one page and become illegible. To keep it reader friendly, an applicant may create multiple diagrams, one for the overall theory which includes goal and higher (purposes and sub purposes) level outcomes, and either purpose or sub purpose level diagrams (depending of the depth and breadth of the diagram) – one for each purpose or sub purpose. This way the diagrams can be printed on paper in a legible format.

If adding assumptions to a diagram makes the diagram too complex to read, an applicant may present the assumptions in a separate table. The table should include the outcome or output and the assumption (s) needed to produce the next level outcome so that the logic becomes clear to the reader.

A narrative document should include the following:

a) Describe a basis for the elements of the theory of change through previous experience or proven results;
b) Describe a basis for the assumptions; if risks are identified, strategies to address risks;
c) Describe an indication why outcomes that rely on other stakeholders for their achievement are likely to happen, and applicant's plan to monitor them.

Terminology, Definitions and Presentation in the ToC of key concepts:

- Pathways: The sequence in which outcomes are expected to occur in order to reach the long-term goal. Pathways are depicted by chains of outcomes connected by directional arrows. Early outcomes should be depicted near the bottom of the ToC and later outcomes near the top. Each level along the way depicts the outcomes that must exist before the next higher outcome in the chain can be achieved, i.e., outcomes on a lower level are pre-conditions for outcomes at the next higher level. Most development initiatives have multiple pathways leading toward the long-term goal.

  Outcomes / preconditions: Outcomes and preconditions are used interchangeably in the ToC chapter. Preconditions include outcomes that are needed to realize the higher level outcome but the project may not have interventions to influence them. In that case the project must coordinate with other actors to ensure that the preconditions are met.

- Outputs: Result from activities. They are tangible, immediate, and intended products of an activity. Examples include people trained, food rations distributed, groups formed, and infrastructures rehabilitated.

- *Graphic presentation:* A diagram that presents a causal road map of interventions, outcomes, assumptions, and long term goals on a pathway of change.

- *Assumptions*: Applicants/awardees must identify and explicitly present all assumptions underlying the ToC. There are two types of assumptions:
    - Assumptions about why a precondition or set of preconditions is necessary and sufficient for movement from outcome to outcome. In the ToC, assumptions are shown along the arrows that connect outcome boxes to explain the connections. They need to be supported by evidence in accompanying narrative. For example a hypothesis, improved efficiency and resilience of agricultural production would lead to increased total production, depends on the assumption that households will continue to have access to land to increase farm size.

    - The second type of assumptions are broader contextual or environmental conditions that are typically out of the control of a project but have significant influence over the success of a project goal. For example a food security project in Bangladesh may assume that during the project life the annual flooding in the project area will not exceed the 50 year flood level. Exceeding the flood level beyond 50 year threshold will likely erode the benefits from the project activities and households' ability to cope with the flooding without adopting harmful coping strategies. The narrative section of the ToC diagram describes and provides justification for the assumptions.

- Evidence: Evidence includes facts or other information that support the truth or validity of a connection in the ToC. It is needed to defend and support the stated connections between one outcome to the next and the basis of the assumptions. Evidence can come from multiple quantitative or qualitative sources, including academic, project-specific, or community-based research. It can be presented in text or tabular format, or by providing references or links to original sources.

Information Resources

The *Center for Theory of Change* promotes best practices for the development and implementation of a ToC. It particularly emphasizes its application in the areas of international development and sustainability.

The *Theory of Change Online* is a free easy-to-use tool for creating a ToC diagram. It provides a flexible drawing canvas for building and editing a diagram.

The Annie E. Casey Foundation has *a Practical Tool for Action, Results and Learning* that helps in the development and application of a ToC.

This blog in the Stanford Social Innovation Review discusses pitfalls to avoid when designing and applying a ToC.

B. Logical Framework

Overview

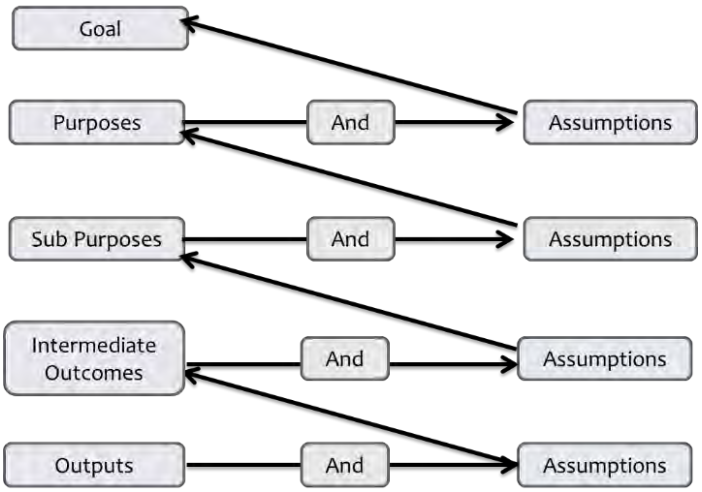
A Logical Framework (LogFrame) is a tool that summarizes the ToC and presents the project design in a standard format. It shows the causal links between project activities, outputs, outcomes and goal; identifies the potential risks and contextual factors that are critical to the success of a project and the key indicators that would help to track the performance of the project. A Logframe consists of a matrix with four columns and many rows, summarizing the key elements of a project, namely:

a) Narrative summary: The project's hierarchy of objectives (Goal, Purpose, Sub purpose, Intermediate outcome, and Outputs);

b) Assumptions: The conditions external to the proposed project but necessary to achieve project results; and contextual environment and key external factors critical to the project's success.

c) Indicators with targets: How the project's achievements will be monitored and evaluated. Targets must be linked to the context, food insecurity and nutritional analysis,

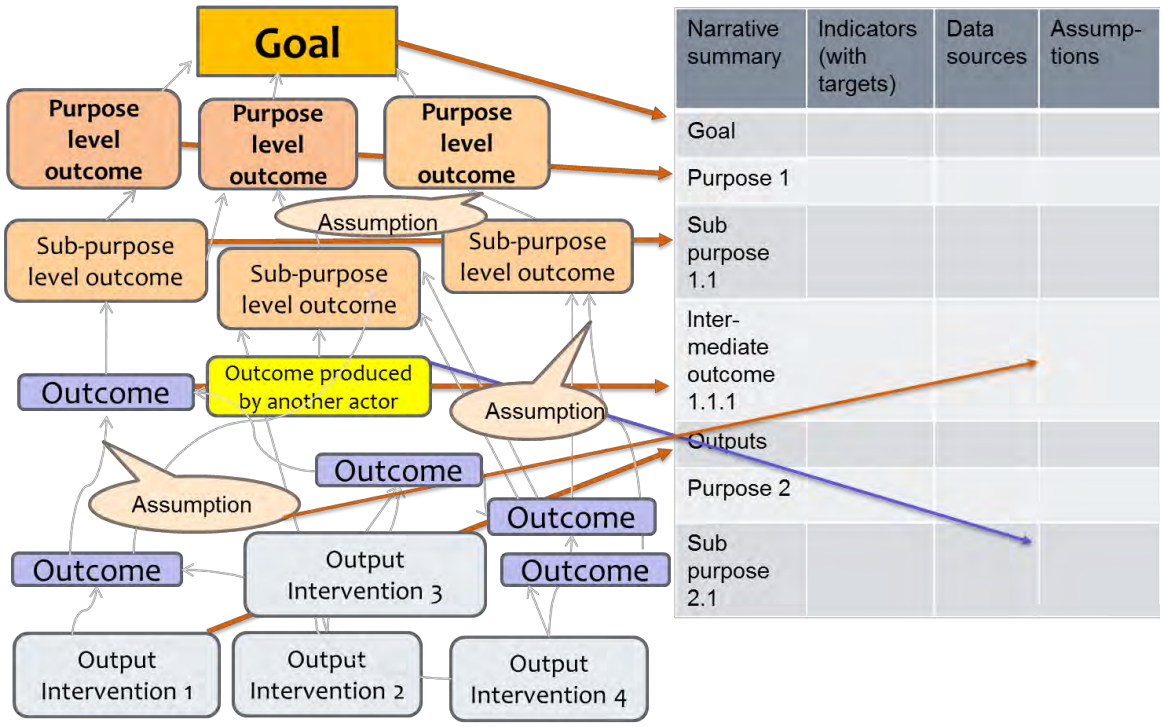
Figure 2 Logic in Logical Framework



and ToC. Targets have to be ambitious yet achievable and linked to the FFP's targets; and

d) Data sources: Where the indicator data will come from, and when it will be collected.

Figure 3 Relationship between ToC and LogFrame



a) **Narrative Summary:** The narrative summary of the LogFrame identifies project's hierarchy of objectives, what a project intends to do (strategy of intervention) and shows the causal relationship between the different levels of the objectives. The hierarchy of project objectives includes goal, purposes, sub-purposes, intermediate outcomes, and outputs. The hierarchy of objectives in the LogFrame must directly be transferred from the ToC..

The goal is a higher-level result to which the project, along with other projects, will contribute to. It is the strategic rationale for the project and is directly linked to the FFP Strategic Objective and the Development Objective of the USAID country development cooperation strategy. The goal statement should be kept as clear and concise as possible. An example of a goal for a food security project could be food and nutrition security of communities and households in [name] Province improved by [year].

Purposes are key result(s) to be achieved that justify the project. It summarizes the highest level of outcome that a project is responsible for. The purposes describe a change in the condition or status of the population in the target area.

An example of a project purpose could be nutritional status of women of reproductive age and children under 5 years improved.

Sub-purposes are outcomes resulting from behavioral and/ or systemic changes—for example, changes in income, gross margin, changes in yield, changes in response time, changes in management systems, changes in adoptive, absorptive or transformative capacities; changes in policy or procedure, recovery of environment, shifts in cultural norms, etc. An example of a sub purpose could be increased income from farm and off farm sources.

Intermediate outcomes are the immediate consequences of outputs. They include changes in practices, attitudes, and systems as a result of the application or use of outputs produced by project activities. Examples include application of project promoted agricultural techniques or management practices, increased consumption of promoted foods, greater attendance. An example of a sub purpose could be increased participation in growth monitoring sessions, or application of sustainable agricultural practices.

Outputs result from project activities. They are tangible, immediate, and intended products of a project implemented activities. Examples include number of people trained, food rations distributed, groups formed, and infrastructures rehabilitated.

b) Indicators describe project outputs and outcomes in operationally measurable terms and specify the performance standard to be reached in order to achieve the goal, purpose, sub-purpose, intermediate outcomes or output. All outcome indicators and selected output indicators are to be included in the LogFrame. Targets to be presented in parenthesis following the example presented in figure 4.

Figure 4 Example of an incomplete LogFrame

Narrative Summary	Indicators (with targets)	Data sources	Assumptions
Goal: Increased food security of vulnerable male and female population in Tangail District by 2020	Percent of people living on less than $1.25/day	Baseline and final evaluation reports	
Purpose 1: Increased access to and household level availability of nutritious food	Depth of Poverty: The mean percent shortfall relative to the $1.25 poverty line (20 percentage point reduction over baseline) Average Household Dietary Diversity Score (30 percent increase over baseline score) ……..	Baseline and final evaluation reports	Food insecurity in the country will not exceed IPC level 3 Inflation rate remains at the current level (below 7 percent) Other food security investments in the region continue to be successful in achieving objectives ……
Sub purpose 1.1	……	……	……..

c) **Data sources** specify where the indicator data will come from. For example annual survey report, baseline survey report, routine monitoring report, and program records.

d) **Assumptions** are external factors and conditions that could influence (positively or negatively) the process described in the narrative column. The list of assumptions should include those factors that potentially impact project success. FFP does not require applicants to report every single assumptions in the LogFrame, only key assumptions critical to the success of the achievement of the project to be reported.

Information Resources

USAID's Technical Note on the *Logical Framework* describes the rationale, theory, and essential elements of the LogFrame as it relates to USAID's Program Cycle.

A *Guide to the Logical Framework Approach (LFA)* was developed by the European Integration Office to provide clear guidance to users on how to start drafting a LogFrame matrix that will lead towards formulation of high-quality projects. The purpose of the guide is to enable users to advance the skills in using LFA as a planning tool and in developing logical framework matrix with all its elements.

C. Gender

Overview

Although the objectives of food assistance activities and actions will need to be context-specific, one underlying aspect of food insecurity in all FFP projects that deserves careful consideration is the widely prevalent issue of gender inequality. Gender inequality affects food security through various pathways. For example, access to, and rights over land differ between men and women affecting food production, availability, and ultimately food security. Men and women engage in different livelihoods and often women earn much less than men. Many women are married and bear children during their adolescent years, at a time when they have the least access to resources and decision-making power in the household, which affects food utilization and nutrition outcomes. Gender inequality varies from one host country context to another and therefore affects each dimension of food security in different ways. Understanding the gender constraints as they affect food security and integrating gender considerations into food assistance programming is essential and a mandatory activity requirement to ensure, promote, and sustain food security.

A gendered approach takes into account the differences in men's, women's, boys', and girls' roles in the community context, as well as the intergenerational and gendered inequalities that exist within a household during activity planning, implementation and assessment. Accounting for inequalities in designing food assistance activities in order to reduce the disparities should not only contribute to more effective multi-year development activities, but also to increased social equality and greater reductions in food insecurity.

Technical Design and Integration of Food Security Activities

In light of USAID's Gender Equality and Women's Empowerment Policy and guidance in ADS 205, a description of how gender will be addressed in all areas of the proposed activities must be included in the application. At a minimum, the following must be addressed in each application:

1. Description of how activity components could affect, both positively and negatively, the access to and control over resources and benefits for boys, girls, men, and women;
2. Description of how preventing gender-based violence (GBV) throughout activity components will be addressed;
3. Description of how proposed interventions will affect women's time (e.g., trade-off between more work and less time for child care or child-focused actions, how potential exposure to agricultural pesticides can adversely affect health, etc.); and
4. Description of how the activity in general, and the technical interventions in particular, will be carried out in a way that will allow for equitable participation by men, women, boys and girls must be included in the design of the activity.

Gender Expertise

FFP expects that applicants will have the necessary gender expertise and capacity available to ensure gender is integrated and addressed at every point in the food assistance activity cycle. Applicants must identify their gender expertise and explain their capacity to implement gender-sensitive actions within the application.

Gender-Based Violence

Eliminating gender-based violence (GBV) is a long-standing goal of the USG, and USAID has supported activities around the globe to combat it.
While FPP activities may not directly address the root causes of GBV, applicants are encouraged to program activities that will focus on addressing normative change such as those activities that have potential community level impact, engage men and engage religious leaders. It is important for applicants to consider the possible effects program activities may have on GBV at the household or community level, and GBV should be assessed during the gender analysis in order to ensure safety measures are in place and that activities will not exacerbate or lead to GBV. Applicants should carefully plan for, and address in the design of the activity, how potential actions could lead to GBV and what steps will be taken to mitigate any harmful negative effects. Due to the sensitive nature of GBV, applicants who propose program activities to directly address and impact GBV outcomes must ensure they have qualified staff trained in this area. Applicants who intend to collect data on GBV must justify what they intend to do with this data, why it's important for program outcomes, and how they intend to address findings.

Gender Integration and Gender Indicators

Gender integration involves identifying, and then addressing, gender inequalities during strategy and activity design, implementation, and monitoring and evaluation. Since the roles and power relations between men and women affect how an activity is implemented, it is essential that activity staff address these on an on-going basis.

What are Gender Indicators?

Gender integration involves an in-depth understanding about the underlying causes of the problems that a project plans to address, theory of change, and identifying, and then addressing, gender inequalities during strategy and activity design, implementation, and monitoring and evaluation. Since the roles and power relations between men and women affect how an activity is implemented and gets adopted, it is essential that project staff continuously review activities using gender lens.

What are Gender Indicators?

Gender-sensitive indicators measure and help track changes in gender related issues over time and progress toward gender equality. Gender indicators should lead to a better understanding of the results of project actions, both positively and negatively, the lives of men, women, boys and girls. Gender-sensitive indicators should highlight any gaps between men and women in terms of access to and control over resources, division of labor, needs, constraints, opportunities and capacities, and the interest of men and women (and boys and girls) in a given context. While gender indicators by themselves do not completely capture men's or women's experiences, they can be used to highlight the need to address and/or guide programmatic decisions at the local, regional, and national level.

FFP Required Gender Indicators

Food for Peace adopted required gender indicators that will be collected at the baseline and endline of each project. The gender indicators can be found here and are numbered 61-66. Applicants are encouraged to include gender indicators in annual monitoring in order to track and be responsive to gender domains over the life of the project. Applicants should carefully consider that selected gender indicators are context-appropriate and applicable to the activities planned. Potential sources of validated gender indicators include, but are not limited to, the WEAI and DHS.

Gender Analysis Plan

Completing a Gender Analysis at the time of application is not required; however, a Gender Analysis must be completed as per the guidance provided in the following section within the first year if the application is awarded. *Applicants are required to share their plans for completing a Gender Analysis as an annex entitled Gender Analysis Plan*. This Plan is limited to four pages, and is intended to only outline the plan for undertaking gender analysis activities. This plan should include, but is not limited to, information on: key questions to be addressed, duration of analysis, tools used for data collection, data analysis plan, plan for application of results, and an estimated budget. Applicants are not restricted to all details of this plan should their application be awarded, but it should be evident from this plan that the applicant has an understanding of what a gender analysis is and the capacity to complete this activity. Applicants should refer to ADS chapter 205 (Integrating Gender Equality and Female Empowerment in USAID's Program Cycle).

Guidelines for FFP Development Project's Gender Analysis

The goal of the project-level gender analysis is to provide a deeper understanding of current gender issues at the community and household levels in activity target areas, as well as the gender context in which the activity is operating within. The purpose is to advance the knowledge and understanding of the context-specific, project-level gender issues that would affect activity implementation, project participation, and outcomes. This should in turn improve and be incorporated into a gender-integrated project design.

Applicants are expected to invest appropriately in the required gender analysis activity and this should be reflected in the proposed budget documents. Applicants' budgets are required to support all of the gender analysis activities with a minimum budget of $25,000 and a suggested budget range of $25,000-$65,000.

Formatting

In addition to the requirements outlined in ADS 205, FFP requests that partners use the following guidelines when preparing their gender analysis:

- Be no longer than 50 pages, including appendices and references;
- Be written in 12 point Times New Roman font with 1-inch margins;
- Be grammatically correct and contain no spelling or punctuation errors;
- Be proofread by field and headquarters staff before sending to FFP for review; and
- Contain the following elements:
    1. Executive Summary
    2. Table of Contents
    3. Introduction
    4. Background/Literature Review
    5. Methodology/Approach
    6. Results and Analysis
    7. Findings and Conclusions
    8. Recommendations
    9. Gender Action Plan (derived from recommendations)
    10. References (include all documents reviewed and utilized in the creation of the final report)
    11. Annexes (must include the Statement of Work and any tools used in conducting the analysis)

Background and Literature Review and Methodology/Approach

The gender analysis should adhere to the following:

- Include, but also extend beyond, a review of available national-level quantitative and qualitative data on gender;
- Incorporate a USAID Mission gender analysis if available. However, the Mission analysis should not serve as the only source of information for the project-level gender analysis. Additionally, as per ADS 205, a Mission-level gender analysis cannot be used in lieu of conducting a project-level gender analysis. Every new project is required to conduct a separate and new gender analysis;
- Be designed in order to understand current gender issues and changing trends that may affect activity implementation. There is no required approach or tool that must be used to conduct this gender analysis. Instead, the focus should be on a design and approach that will lead to the most applicable gender results at the project level;
- Be designed to gain an understanding of the ways that gender issues affect access to activity interventions, decision making, and behavior change or activity uptake, and how they relate to and impact the achievement of food security objectives;

- Use a variety of representative qualitative data collection methods in order to understand the nuances of the project implementation environment including, but not limited to, key informant interviews, focus group discussions, and stakeholder interviews;
- Utilize available quantitative data from other studies to inform this analysis. Projects are not required to collect new or primary quantitative data during this activity; however, this analysis should explore all available information including results from quantitative studies in order to triangulate and inform the qualitative data to the extent possible.
- Attention should be given to the types of groups best suited to answer the gender analysis questions. For example, which questions are best answered by a desk or literature review? Which questions are better answered through key informant interviews or focus group discussions? Which questions should have multiple groups consulted for triangulation of data?
- Consider that sufficient timing is needed. In general, the planning of the gender analysis should take approximately two-three weeks; primary data collection four-six weeks; data entry and analysis approximately four-six weeks; drafting of the final report approximately three-four weeks; and final report editing and incorporation into the project three-six weeks. While the timeline may vary slightly, it is important not to rush this process and allow for necessary and sufficient time for revisions to the draft report and time needed to apply the results throughout the remainder of the activity life cycle; and
- Applicants are required to understand and adhere to IRB processes when appropriate, which includes following the requirements both inside and outside of the U.S. When an IRB is deemed necessary, programs must receive all required approvals before any data is collected for the gender analysis. Any IRB process should be adequately planned for and reflected in the above timeline (on average it take 2-3 months per IRB process to receive approval once research protocols are submitted). For more information regarding IRB process at USAID see the ADS on **Protection of Human Subjects in Research Supported by USAID**:

Data Analysis, Findings/Conclusions, Recommendations, and Action Plan

FFP expects that the results of the analysis will serve to guide gender-integrated activity implementation and be incorporated into activity actions for the remainder of the activity life-cycle. The results from a gender analysis should change the type and implementation of activity actions to take constraints identified by the gender analysis into account. To produce quality results and recommendations that can be fed back into activity actions, a “Gender Action Plan” must be created as part of the gender analysis final report. The following should be considered when drafting the recommendations and Gender Action Plan in the final report:

- Recommendations generated from the analysis should be feasible, actionable, and realistic.
- Recommendations should take any necessary budget constraints into account.

- Relationship between findings (facts and figures), conclusions (inference), and recommendations (courses of action) must be clearly identified in the report in order for readers to understand the logic and for the suggested recommendations to be evidence-based.
- Results should be presented by using a combination of charts, tables, direct quotes, and summarized narratives.
- It is highly encouraged to quantify qualitative data when appropriate for ease of comparing data and to contribute to a concise and informative final report.
- Results and findings should be presented as analyzed facts supported by strong quantitative and qualitative data.
- Sources of information need to be properly identified and sample sizes of reported data and results need to be disclosed. For example, when reporting information gathered from a focus group discussion, it should be clear how many people in one or several focus group discussion(s) held a particular view being reported.

Staffing for the Gender Analysis

Conducting a high quality and successful gender analysis requires having qualified staff to assist in the exercise. To ensure that qualified staff is participating in the gender analysis, FFP awardees should:

- Utilize activity gender staff and engage headquarters' gender staff throughout the process. It is important that activity staff at both the field and headquarters level play a role throughout the entire gender analysis process. This will lead to a higher quality end product that is more useable and applicable to the activity;
- Ensure that activity staff still has substantial involvement and oversight during the process if an external gender expert is hired, as required by ADS 205. This means that activity staff is expected to play a role in the development, implementation, analysis, and application of the gender analysis results; and
- Ensure that, in addition to gender expertise, a multi-disciplinary team with capacity in quantitative and qualitative data collection and analysis is involved.

Information Resources

USAID's Gender Equality and Female Empowerment Policy aims to improve the lives of citizens around the world by advancing equality between females and males, and empowering women and girls to participate fully in and benefit from the development of their societies.

USAID's *ADS 205* explains how to implement across the Program Cycle new USAID policies and strategies to reduce gender inequality and to enable girls and women to realize their rights, determine their life outcomes, influence decision-making, and become change agents in households, communities, and societies.

More information on addressing gender in programming can be found in *USAID's Addressing Gender in Programming* page.

D. Climate Change Adaptation and Mitigation

Overview

On September 23, 2014 President Obama signed Executive Order 13677 on Climate Resilient International Development. This new Executive order combined with two previous ones, Executive Orders 13514 and 13653, establish a strong foundation for coordinated and consistent action to incorporate climate-resilience considerations into policies and procedures throughout the Federal Government. Executive departments and agencies with international development programs must now systematically factor climate-resilience considerations into international development strategies, planning, programming, investments, and related funding decisions. As part of this process, FFP is coordinating with USAID's Global Climate Change Office and USAID's recently finalized Climate Adaption Plan. Specific guidance on how this new executive order applies to all new USAID awards will be forthcoming.

At a minimum, applicants should include a description of how the program will plan to adapt to climate change stressors that would otherwise adversely affect the performance of climate-sensitive program activities such as potable water, groundwater-sourced irrigation, road durability/erosion and vector control. This description of how climate sensitivity (e.g., how proposed interventions will address climate stresses) and safeguarding of ecological goods and services (e.g., groundwater recharge, soil fertility, slope stabilization) should be integrated across the design of all relevant activities, in light of the environmental integration effort in the RFA.

Adaptation activities, if proposed in a development project application, should aim to build the resilience of communities, individuals, and natural assets to climate change and variability. Doing so will help protect existing FFP investments from climate impacts, safeguarding development gains and economic security. Additionally, all USAID climate change adaptation activities must be informed by a climate change vulnerability assessment (CCVA). While applicants are not required to conduct a separate climate change vulnerability assessment, they should describe how they are using information from existing resources to design any adaptation activities. In general terms, vulnerability is defined as the degree to which something or someone is likely to be harmed by a stress. In the context of climate change, it is the degree to which social, economic or environmental systems are likely to be harmed by adverse impacts of climate change stress. The idea of vulnerability is further elaborated in USAID's Climate Resilient Development Results Framework.

Information Resources

Executive Order 13677 on Climate-Resilient International Development

Executive Order 13514 on Federal Leadership in Environmental, Energy, and Economic Performance

Executive Order 13653 on Preparing the United States for the Impacts of Climate Change

USAID's Climate Adaption Plan

E. Environmental Safeguards and Compliance

Overview

Environmental degradation, climate change, and natural disasters are well-known challenges to development assistance and humanitarian aid, as they can negatively impact sustainable development and resiliency goals. Improving environmental impacts of FFP projects leads to both positive food security and environmental outcomes (e.g., safe and available water, NRM, reduced hunger and malnutrition, etc.). Ensuring environmental compliance in FFP food assistance projects aims to:

1. Do no harm to local environment of land, water and flora/fauna, including humans (e.g., project-related deforestation, medical waste management, safe/effective pesticides, water quality assurance);
2. Improve community resilience to environmental degradation (consider the added impacts of climate-related shocks);
3. Rehabilitate degraded natural resources that are relevant to project's food security objectives (e.g., poor soil fertility, contaminated drinking water,);
4. Strengthen knowledge, attitudes and practice of target participants to better manage community natural resource environments for enhanced project sustainability and resilience to shocks related to food security.

Technical Design and Integration of Food Security Activities

Environmental safeguards and compliance should be integrated within the application and described in the Environmental Safeguards Plan annex.

Meeting the environmental safeguards and compliance goals of FFP food assistance projects consists of the following four requirements:

a) Consultation of Existing Environmental Analyses

A wealth of information on climate change, environmental degradation, and environmental performance practices provide analyses and guidance to inform the development of FFP development food assistance projects. Described below are four key types of existing environmental analyses—some of which are required and others recommended:

- Applicants are required to draw guidance from the global, USAID FFP RFA-level, Initial Environmental Examination (hereafter, RFA IEE) which USAID developed to assess strategic environmental impacts common to all USAID development food assistance projects. The RFA - IEE also provides further information on the environmental integration effort and the development of the stand-alone, or "Project IEE", described in bullet (d) below.
- Applicants must draw from USAID's global environmental assessments for commodity fumigation. All FFP development project applications must ensure fumigation practices in accordance with the USAID Programmatic Environmental Assessment for the Fumigation of Commodity which identified three key gaps in fumigation practices (i.e., personal protective equipment, monitoring equipment and gas impermeable tarps) that must be addressed. Templates for the development of pesticide compliance analyses are included.
- Applicants are recommended to apply the findings from existing USAID Foreign Assistance Act Section 118/119 Biodiversity and Tropical Forestry (118/119) analyses. USAID 118/119 analyses are developed to identify priority environmental threats and opportunities at the strategic country level that can inform food security programming which relies on several ecological goods and services. This analysis involves stakeholder consultations with communities, government and civil society organizations to identify, key issue areas, such as specific drivers of unsustainable agricultural practices leading to deforestation.
- Applicants are recommended to draw from national climate change vulnerability assessments (CCVAs), wherever available. CCVAs contain data on exposure and sensitivity to climate stressors, government and community adaptive capacities and recommend actions for climate change adaptation, for examples, see CCVAs.

b) Budgeting for Environmental Compliance

FFP requires that all projects have the necessary budget to achieve environmental compliance (as per ADS Chapter 204.2.c). The budget planning for environmental compliance must begin at the initial proposal development and become refined later with the additional analyses provided by the Project IEE (as described in bullet e, below). Environmental compliance **budgeting elements** may include: Salaries (e.g., staffing for Project IEE implementation), Travel and Transport (e.g., to field sites), Staff Training (e.g., training of awardees and participants), Sub-contracts (e.g., development of the Project IEE), etc.

For example, applicants are expected to invest appropriately in development of the required Project IEE analysis, and this should be reflected in the proposed budget documents. Applicant's budgets are required to support the development of the Project IEE analysis with a suggested budget range of $25,000-$40,000 for the typical complexity of a development food assistance project.

USAID is currently developing an environmental budgeting guidance that is undergoing public consultation and pilot implementation, under the USAID Global Environmental Management Support (GEMS) project. Applicants are encouraged to review the USAID

presentation entitled "Consultation for the Environmental Budgeting Toolkit for USAID Development Food Assistance Programs," March 7, 2012, Washington, DC.

c) Staffing for Environmental Compliance

To implement the USAID environmental regulation and address site-specific issues, dedicated environmental staffing is necessary within the project or field management levels. The budget narrative should explain how environmental safeguard costs are incorporated into line items of the detailed and comprehensive budgets in the FFP Detailed Budget Annex.

d) Environmental Safeguards Plan

Applicants are expected to integrate environmental safeguards and climate change sensitivities throughout their project narrative. In addition, applicants must include a description of their plans for completing a Project IEE (see section "e" below) as an annex entitled the Environmental Safeguards Plan (submitted as Annex 9). Only successful applicants will carry out a full Project IEE.

The Environmental Safeguards Plan must address four key elements:

1. How environmental safeguards and climate change sensitivities have been integrated into proposal and project design;[4]
2. How environmental stand-alone and integration indicators have been included in monitoring and evaluation (M&E) systems;
3. How funds for safeguarding have been allocated in the detailed/comprehensive budgets and described in the budget narrative; and
4. The strategy for development of the Project IEE.

The plan should be no more than four (4) pages.

e) Developing the Project IEE (*Required only for successful applicants*)

All successful applicants are required to develop a Project IEE. The goal of the project-level IEE analysis is to provide a deeper understanding of current environmental impact and degradation issues at the country, regional/watershed, community and household levels in activity target areas, as well as the context of the environmental threats and opportunities in which the activity is operating within. The purpose is to advance the knowledge and understanding of the context-specific, project-level environmental and climate issues that would affect activity implementation, project participation, and outcomes. This should in turn improve and be incorporated into a project design that integrates both climate and environmental resources and risks. When developing

[4] This should address linkages between environmental sensitivities and safeguards in each technical area. Examples include describing how current participant cooking practices can be cleaner, labor-saving and more sustainable to provide positive health, social and environmental impacts.

Project IEEs, successful applicants must take direction from the RFA-IEE, described above, and are encouraged to use the USAID Environmental Compliance Database, which contains relevant environmental impact analyses for a wide range of USAID development sectors and countries of implementation.

Project IEE Deadline: Development of the Project IEE, including all necessary IEE field-level analysis and stakeholder consultations, should begin immediately upon award notification. The deadline for submitting the Project IEE for USAID clearance **is no later than the date established by FFP for the M&E workshop**.

The Project IEE must include the Environmental Mitigation and Monitoring Plan (EMMP). The EMMP is an essential analytical tool used during the M&E workshop to refine the Logical Framework and Indicator Performance Tracking Table (IPTT). The Project IEE will be reviewed and approved by the Bureau Environmental Officer for USAID's Bureau for Democracy, Conflict, and Humanitarian Assistance (DCHA), prior to the project conducting any field actions that would normally trigger a Negative Determination, per 22 C.F.R. 216. However, associated start up actions, such as community consultation, participant targeting, and other key stakeholder engagement, may begin in absence of an approved Project IEE.

Policies, processes, and guidance on developing FFP environmental safeguards and compliance can be found at the USAID FFP Environmental Safeguards and Compliance page. Requirements for USAID environmental compliance are codified under the Foreign Assistance Act of 1961, Section 117; Federal Regulations (22 C.F.R. 216) and USAID's Automated Directives System (ADS) Chapter 204.

M&E Considerations and Indicators

To ensure the ongoing safeguards for environmental goods and services while achieving food security gains, applicants will integrate environmental considerations into the project M&E system. This integration process begins with the inclusion of "Environment" as a cross-cutting theme in the Results Framework, where relevant. To reflect this cross-cutting theme, the Indicator Performance Tracking Tables (IPTTs) should include an appropriate environmental, or "green", output and outcome indicators.

USAID recommends two types of environmental indicators be considered in the IPTT: stand-alone and integration indicators. Stand-alone environmental indicators simply measure progress towards the FFP project results that have an environmental focus (e.g., climate change, NRM). For such indicators, FFP projects would draw direction from existing Agency indicators. Environmental integration indicators would be applied to certain actions with a potential risk for environmental impact (e.g., roads, healthcare waste, irrigation) that are not addressed by the stand-alone indicators described above. The environmental integration indicators build upon existing IPTT indicators for these certain actions to measure the quality of actions related to good environmental stewardship and prevention of potential environmental impacts when measuring

progress towards project results. More information can be found by viewing the M&E Environmental Considerations presentations.

Information Resources

USAID's *ADS Chapter 204* provides policy directives and required procedures on how to apply Title 22 of the Code of Federal Regulations, Part 216 (22 CFR 216) to the USAID assistance process. This is to ensure that assessment of the environmental consequences of all programs, activities, and substantive amendments are in full compliance with the requirements of this Federal Regulation implementing the underlying legislation and out of court settlement.

USAID Environmental Compliance Procedures are intended to implement the requirements of the National Environmental Policy Act of 1970, as they affect the USAID program. 22 CFR 216 applies to all USAID programs, projects, activities and substantive amendments.

The role of *Environmental Safeguards and Compliance* in USAID food assistance projects is to enhance the resiliency of over-exploited natural resources, improve environmental health, as well as, strengthen partner-country environmental governance and community resilience to climate and other environmental changes.

USAID's *Global Climate Change* page includes information on USAID's commitment to promoting climate-smart planning and clean energy development to safeguard today's gains in global prosperity and security and to ensure tomorrow's growth is sustainable.

The *Global Environmental Management Support (GEMS) Project* provides on-demand environmental compliance, management, capacity-building and sound design support to USAID's Environmental Officers, to USAID Missions and other operating units, and to their projects and programs

The *Environmental Compliance Database* (GEMS) is a searchable global archive of USAID pre-implementation environmental review documentation (22 CFR 216 documentation).

The *Environmental Mitigation and Monitoring Plans Factsheet* (The Cadmus Group) describes the EMMP concept and its role in life-of-project environmental compliance for USAID-funded activities. It provides practical guidance and examples to inform EMMP development.

Definitions

Environmental Safeguards: Components of a program that are developed as part of the activities' design to deal with mitigating potentially foreseeable negative environmental impacts of program activities, maintaining ecological goods and services and promoting their sustainable management by community stakeholders. In USAID

programs, environmental safeguards are incorporated into application design and implementation under the mandate of the USAID environmental compliance regulation, 22 CFR 216.

Initial Environmental Examination: An environmental impact analysis, required as a condition for disbursement of program funding, as per USAID environmental regulation 22 CFR 216, the IEE analyzes potentially foreseeable impacts resulting from program activities.

III. Sectors

A. Agriculture and Livelihoods

Overview

FFP's agriculture and livelihood activities seek to increase access to economic opportunities for families largely dependent on agriculture and rural economies for their livelihoods. They aim to enable people to make their own decisions from a set of multiple options, and they reflect the reality that in many of the communities where we work, the most vulnerable do not own land, or a household's own land holdings will not provide a sustainable pathway out of food insecurity and poverty. FFP's organizational principles in this sector include a focus on profitable, market–linked, sustainable farm AND LAND management, non-farm income generating opportunities, household economics (including nutrition-sensitive agriculture), and human as well as institutional capacity building. FFP encourages the development and testing of interventions that both direct participants and non-participants can adopt and adapt to increase their incomes and improve the wellbeing of their families, and which, because of this, provide AN incentive for uptake beyond the geographic scope and life of a project. A primary objective of activities in this sector is to increase household productivity and ensure better returns on labor, land, capital and assets. A primary challenge to activities in this sector is identifying implementation and outreach approaches which do not create parallel and unsustainable service delivery systems, or which rely completely on resource transfers for uptake.

With an increasing focus on household and community resilience, activities in this sector will be both "climate-smart" and reflect a thorough understanding of the context-specific risks and shocks which erode household assets and increase vulnerability. They will also reflect the analysis of opportunities and constraints associated with traditional coping mechanisms and/or new adaptations (e.g. shift away from traditional crops, work migration, movement out of pastoralism, etc.) that may already be being used to mitigate them.

SECTOR FOCUS AREAS

1. Profitable, Sustainable Farm and Land Management

- NRM
- Input Supply (e.g., seeds, fertilizer, crop protection)
- Appropriate Value Chain Selection
- Financial Management
- Agroforestry
- Mechanization
- Land Access
- Crop Production
- Livestock production (e.g., dairy, beef, small ruminants, poultry)
- Rangeland management/drought cycle management including – controlled destocking
- Climate–smart adaptation and sustainable practices
- Agriculture-Nutrition Linkages

Information Resources

The Six "Ins" of Climate-Smart Agriculture: Inclusive Institutions for Information, Innovation, Investment, and Insurance (CAPRi) reviews the role of institutions in promoting inclusivity, providing information, enabling local level innovation, encouraging investment, and offering insurance to enable smallholders, women, and poor resource-dependent communities to adopt and benefit from Climate Smart Agriculture.

Climate Risk Screening Tools and their Application Guidelines (UNDP and UNEP) provides an informational entry point to climate risk screening tools. The paper includes an overview of available climate risk screening and assessment tools, examples of application of climate risk screening and assessment tools, and a discussion of lessons emerging from the application of climate risk screening and assessment tools.

Field Assessments & Action Plans (Seed System) presents Seed Security Assessments (SSSAs) that have been conducted in 11 countries. The reports contain specific recommendations and action plans for the short and medium term. Reports also contain considerable background material on *inter alia*: variety release, seed supply mechanisms, and gendered access to a range of innovations.

Review of Promising Practices in FFP Development Food Assistance Projects (TOPS) discusses a series of promising practices described under overarching themes (e.g., transfer of knowledge, market focused programming, and diversifying production) and more specific activities that showed impact (e.g., micro-irrigation, livestock shelter, examples of local coping strategies, and a short discussion on credit).

Agricultural research, livelihoods, and poverty | International Food Policy Research Institute (IFPRI) explores the types of impact that agricultural research has had on livelihoods and poverty in low-income countries. The study provides evidence from a range of case studies on the impact of different types of agricultural research and technologies on the livelihoods of poor people. The study also identifies the pathways through which the impacts occur.

Shaping Agricultural Innovation Systems Responsive to Food Insecurity and Climate Change (World Economic and Social Survey) draws lessons from selected country experiences of adaptation and innovation in pursuit of food security goals. The paper examines features of innovation systems that are more likely to build, sustain and/or enhance food security in situations of rapid change and uncertainty including: 1) recognition of the multi-functional nature of agriculture and the opportunity to realize multiple benefits; (2) access to diversity as the basis for flexibility and resilience; (3) concern for enhancing the capacity of decision makers at all levels; and (4) perseverance and continuity of effort aimed at securing well-being for those who depend on agriculture and its outputs.

Seeds in Emergencies: A Technical Handbook (FAO) examines how to improve the quality and effectiveness of seed provided in emergency operations. The publication has relevance to development programs as well as it focuses on seed quality; seed testing; variety type; seed deterioration; seed storage; seed procurement; seed importation regulations; and vegetative planting material.

Vegetable Seed Supply and Selection in Humanitarian Response – Seed Aid for Seed Security Advice for Practitioners (Seed Programs International) provides information on the various roles of vegetable seeds in humanitarian responses. The brief examines commercial seed supply; seed saving and storage; seed selection; seed quality; and exit strategy.

2. Household Economics (including nutrition pathways)

- Agriculture-to-nutrition pathways
- Household budgets
- Village Savings and Loans
- Post-Harvest (e.g., food preservation, storage, food safety)
- Marketing
- Linking to the private sector
- Income-generating activities (non-farm/off-farm)
- Nutrition-sensitive household gardens for home consumption
- Backyard livestock for home consumption

Information Resources

SPRING: *Improving Nutrition through Agriculture Technical Brief Series* This series of briefs illustrates how a set of pathways and principles may assist Feed the Future

stakeholders to strengthen agriculture and nutrition linkages across and within country portfolios. Short vignettes from agriculture activities highlight how the pathways and principles can be applied in diverse contexts. The conceptual frameworks of the pathways and principles for improving nutrition through agriculture are described in the first brief. Each subsequent brief explores a different route between agriculture and nutrition: food production, income generation, and women's empowerment.

Modernizing Extension and Advisory Services: Linking Farmers to Markets (MEAS) guide provides the field-level practitioner with tools and applications to reach very poor households. The intended outcome of the Field Guide is to have greater market engagement for very poor households through enterprise development activities. The Field Guide focuses on allowing practitioners to more effectively reach the very poor.

Working with Smallholders: A Handbook for Firms Building Sustainable Supply Chains (IFC) discusses best practices to expand agricultural supply chains by working with smallholder farmers. The purpose is to enable more productive interactions between the private sector and smallholders. The guide examines aggregation; effective training and communication strategies; standards and certification; increasing access to inputs; improving farm management skills; incorporating gender; and measuring results.

From Subsistence to Profit: Transforming Smallholder Farms (IFPRI) presents livelihood strategies and development pathways for smallholder farmers in developing countries, and offers policy recommendations to help potentially profitable smallholders meet emerging risks and challenges. The study recommends focusing policy and investments on (1) promoting context-specific farm-size policies; (2) supporting productive social safety nets; (3) improving risk mitigation and adaptation strategies; (4) linking agriculture, nutrition, and health; (5) promoting pro-smallholder value chains; and (6) increasing smallholder-friendly financing and investment.

Savings Groups: What are they? (SEEP) presents basic description of different types of savings groups covering the basic approach; variations in methodology; sustainability; links to other development interventions; measurement of performance; and generally facilitating the exchange of information about savings groups.

Beyond Financial Services: A Synthesis of Studies on the Integration of Savings Groups and Other Developmental Activities (Aga Khan Foundation) summarizes the findings of a Learning Initiative to study the integration of Savings Groups and other developmental activities. The report concludes that good planning; matching delivery mechanisms; recognizing capacity and resource requirements; weighing responsibilities for risks; properly measuring and attributing costs; assessing sustainability; and proceeding with caution are best practices when trying to integrate savings groups and other development activities.

Linking smallholder agriculture and water to household food security and nutrition (South African Water Research Commission) systematically examines the nutritional and water implications of crop and livestock production. The study finds that crop

diversification, gender issues and nutrition education are among the important factors that strengthen the link between agriculture and nutrition. Since food production is the most water-intensive activity in society, nutritional water productivity (i.e. nutrition per volume water) of foods and the nutritional water footprint of diets should also be considered as part of the sustainability analysis of interventions in these areas.

3. Human and Institutional Capacity Building

- Extension and advisory Services
- Literacy and numeracy
- Civil Society governance (e.g., farmer associations, savings and loans groups, watershed water user groups)

Information Resources

MEAS Brief # 3: Adaptation Under the New Normal of Climate change: The Future of Agricultural Extension and Advisory Services (MEAS discussion paper series) addresses how extension services can be a critical link between farming populations and sources of new information and tools to improve climate change adaptation. The brief concludes 1) appropriate engagement strategies; 2) working with groups at appropriate scale; 3) overhaul extension curricula; 4) increased use of information technology; and 5) advocating for supportive policies and institutional frameworks all need to be addressed.

Linking Smallholder Farmers to Markets and the Implications for Extension and Advisory Services (MEAS discussion paper series) discusses how to link smallholder farmers to markets and the implications for agricultural extension and advisory services. The brief has a long list of conclusions that include, but are not limited to, realizing new institutional arrangements; building farmer agency; identifying the right market and calibrating expectations; focus on market outcomes combining value chain thinking with financial services; managing risk; stewardship of subsidies; and performance incentives.

Property Rights, Collective Action, and Poverty: The Role of Institutions for Poverty Reduction (Collective Action and Property Rights) presents a conceptual framework on how collective action and property rights institutions can contribute to poverty reduction, including through external interventions and action by poor people themselves. The paper concludes that people's action and interactions can also shape both the physical and institutional environment in which they operate. Understanding these effects can provide insights into how policies and programs can improve the choices and capabilities of poor people to pursue their goals.

Good Agricultural Governance: A Resource Guide Focused on Smallholder Crop Production (FAO) focuses on the design, reform, and implementation of policies, laws, regulations and the allocation of resources in the management of a country's agriculture and rural development sector. The guide defines governance, and then discusses how

governance should be applied to sustainable intensification; crop diversification; seed systems; and input supply sectors.

B. Risk Management and Disaster Risk Reduction

Overview

Natural and man-made disasters have profound effects on lives, livelihoods, and food security, especially among vulnerable populations who are the least able to cope with shocks. Disasters cause breaks in food availability, access, and stability, which can lead to negative coping strategies, hunger, and malnutrition. Growing populations and urbanization, climate change, and environmental degradation are increasing people's risks to disasters. At the same time, chronic poverty leaves households vulnerable to other "disasters"—the injury, illness or death of a wage earner, the failure of a crop, animal disease, a fire— all with the impact of, or potentially greater impact than, a shock affecting the entire community.

Most of the communities served through FFP's development programs are living at the intersection of recurrent shocks and chronic poverty— deeply vulnerable to the impacts of both "covariate" shocks (drought, flooding, conflict) which affect entire communities, and "idiosyncratic" shocks (e.g. illness, job-loss) which affect individuals and households. For these communities, disaster risk can be significantly reduced through strategies that seek to decrease vulnerability and exposure to hazards within wider efforts to reduce food insecurity, improve household nutrition and health outcomes, and increase household assets and incomes. Investments that both strengthen disaster risk management capacities, and enable households to better manage through idiosyncratic shocks, contribute directly to household and community resilience and increase the likelihood of sustainable improvements in food and nutrition security.

Increasing resilience among chronically vulnerable populations demands an approach that brings a combination of sectors (e.g. food security, health, climate change adaptation, social protection, peace building, and governance) together to strengthen existing capacities and address the context-specific drivers of vulnerability within a community. Risk reduction strategies are pro-active (e.g crop diversification, use of drought-tolerant crops and livestock, improving water catchment systems, etc.) Risk mitigation strategies are employed after a shock or stress and include things like the use of household savings and labor migration. Financial services (e.g. village savings and loans) and insurance (health, crop, livestock) can both reduce and mitigate risk. FFP encourages applicants to consider a variety of strategies to reduce and mitigate risk based on a thorough understanding of context-specific capacities, vulnerabilities and hazards.

Information resources

USAID Policy and Program Guidance on Building Resilience to Recurrent Crisis (USAID) draws from decades of experience providing humanitarian relief and development assistance. The guidance aims to reduce chronic vulnerability and promote more inclusive growth in areas of recurrent crisis by ensuring that USAID humanitarian relief and development experts work together to better plan and program to build resilience and help vulnerable communities move from cycles of crisis to a pathway toward development.

A Guide to Risk, Vulnerability and Vulnerable Groups (WB) provides a useful synthesis of analytical approaches to risk and vulnerability analysis, social risk management and the analysis of vulnerable groups, and outlines options for analytical work to support the incorporation of vulnerability in poverty analysis. This is an older document; however, it provides clear definitions, a useful matrix of social risk management and strategies, as well as a large number of still-relevant examples of analyses and interventions.

Disaster Risk Reduction for Food and Nutrition Security (FAO) outlines FAO's corporate commitment to reducing risks and building livelihood resilience thus protecting development gains. It aims to scale-up and accelerate actions for disaster risk reduction at different levels, building on FAO's existing technical capacities as well as on disaster risk reduction initiatives and good practices worldwide.

When Disasters and Conflicts Collide (ODI) presents the evidence base for how natural disasters affect conflict, how conflict affects natural disasters, and how people living in complex environments are affected by multiple risks. The paper also considers what can be learned from current practices to improve conflict prevention, state building and disaster risk management in ways that help build resilience.

Enhancing Resilience to Food Security Shocks in Africa (TANGO International) establishes priorities for resilience programming by outlining specific steps to be taken to improve disaster risk management, enhance adaptive capacity, and facilitate effective governance and other enabling conditions for resilience.

Making Disaster Risk Reduction Gender-Sensitive: Policy and Practical Guidelines (U.N.) provides a policy guideline on gender mainstreaming, and practical guidelines on how to institutionalize gender-sensitive risk assessments, implement gender-sensitive early warning systems, and use gender-sensitive indicators to monitor gender mainstreaming progress.

Disaster Risk Management in Post-2015 Development Goals (ODI) examines options for Disaster Risk Management (DRM) in the post-2015 development framework. The paper explores three scenarios - a standalone goal on disaster risk management, disaster risk management within a goal on 'resilience', 'security' or 'tackling obstacles to development'; and integration of DRM into other goals.

Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organizations (ProVention Consortium) provides a series of 14 guidance notes for use by development organizations in adapting programming, project appraisal, and evaluation tools to mainstream disaster risk reduction into development work in hazard-prone countries.

Early Warning Systems in the Context of Disaster Risk Management (United Nations University – Institute for Environment and Human Security) addresses traditional views on early warning systems, and what it takes to transform them into efficient, people-centered systems.

C. Maternal and Child Health and Nutrition

Overview

FFP aims to reduce chronic malnutrition among children under five years of age. To achieve this goal, FFP expects development partners to focus on a preventive approach during the first 1,000 days of life—from a woman's pregnancy to the child's two years of age—which is the period when women, infants, and children are most vulnerable to malnutrition. FFP partners are encouraged to use a synergistic package of nutrition-specific and nutrition-sensitive interventions designed to prevent malnutrition. This package should contribute to decreasing the incidence of both chronic and acute malnutrition through improvements in preventive and curative health services, including but not limited to, growth monitoring and promotion; WASH; immunization; deworming; reproductive health and family planning; malaria prevention and treatment; and other context-specific health services.

Supporting country-led health and nutrition systems is fundamental to the sustainability of FFP multi-sectoral nutrition programming. While FFP projects are typically community-based, strengthening linkages to national health systems, engagement with civil society, and building capacity of institutions and health care workers are important to advance nutrition in the countries where FFP works.

Finally, with a mandate for integrated community development, FFP programs are uniquely positioned to ensure that all activities build or strengthen agricultural and economic pathways to improved nutrition and health outcomes— partners are encouraged to layer activities and messaging in their target communities and to promote opportunities for cross-training and shared learning among staff to reduce the "stove-piping" of MCHN, agriculture and other sector activities.

Information Resources

USAID Multi-Sectoral Nutrition Strategy 2014-2025

Second Food Aid and Food Security Assessment (FAFSA-2)
FAFSA-2 Summary Version

The Lancet Maternal Child Nutrition Series - June 2013
The 1,000 Days Partnership website provides resources on nutrition programming for the first 1,000 days from conception to age two.

Scaling Up Nutrition (SUN) is a unique Movement founded on the principle that all people have a right to food and good nutrition. It unites people—from governments, civil society, the United Nations (U.N.), donors, businesses, and researchers—in a collective effort to improve nutrition. Within the SUN Movement, national leaders are prioritizing efforts to address malnutrition. National progress is strengthened as SUN Government Focal Points from each country come together in the *SUN Country Network*.

SECTOR FOCUS AREAS

1. Health and Nutrition Systems Strengthening

One important and potentially sustainable intervention for improving health and nutritional status of women and children consists of working at community level health and nutrition systems strengthening. These are general materials that can be consulted for program design. Specific country programs are referenced in Country-Specific Information

Information Resources

Strengthening health systems to improve health outcomes: WHO's Framework for Action

Caring for Newborns and Children in the Community is a three-part package for training community health workers (CHWs) put together by WHO and UNICEF. The package consists of *Home Visits for Newborn Care*, *Caring for the Child's Healthy Growth* and *Development* and *Caring for the Sick Child in the Community*

i. Essential Nutrition Actions

The Essential Nutrition Actions (ENA) framework an operational framework for managing the advocacy, planning and delivery of an integrated package of preventive nutrition actions encompassing infant and young child feeding, micronutrients and women's nutrition. Using multiple contact points, it targets health services and behavior change communication support to women and young children during the first 1,000 days of life - from conception through the first two years of life - when nutrient requirements are increased, the risks of undernutrition are great, and the consequences of deficiencies most likely to be irreversible. All these actions have been proven to improve nutritional status and reduce mortality.

Information Resources

The *CORE Group* page links to resources related to Essential Nutrition Actions framework and other resources.

Essential Nutrition Actions: Improving maternal, newborn, infant and young child health and nutrition (WHO) provides a compact of WHO guidance on nutrition interventions targeting the first 1,000 days of life to reduce infant and child mortality, improve physical and mental growth and development, and improve productivity.

ii. CMAM: Management of acute malnutrition

There are four components to a Community Management of Acute Malnutrition (CMAM) program. These are to: 1) identify and refer children with acute malnutrition at the community level (community mobilization); 2) manage children with moderate acute malnutrition (MAM) in the community; 3) manage children with severe acute malnutrition (SAM) without medical complications in the community; and 4) manage children with SAM with medical complications, or children with SAM less than 6 months old with facility-based care.

Information Resources

The *Global Nutrition Cluster* page provides links to CMAM resources, including a decision tool for MAM, a costing tool for CMAM, and UNHCR and WFP guidelines for selective feeding.

Guideline: Updates on the management of severe acute malnutrition in infants and children (WHO) provides global, evidence-informed recommendations on a number of specific issues related to the management of SAM in infants and children, including in the context of HIV.

The CMAM Forum provides an extensive array of resources related to CMAM programming. The CMAM Forum has recently begun to turn attention to MAM, although there is still no WHO-approved guidance on MAM. There is, however, a technical guidance note on considerations in developing foods for MAM treatment.

Key documents related to MAM:

- Annan, Reginald A.; Webb, Patrick; and Brown, Rebecca. *Management of Moderate Acute Malnutrition (MAM): Current Knowledge and Practice*. CMAM Forum Technical Brief: September 2014
- Jimenez, Michelle, and Maryanne Stone-Jimenez. *Preventing Moderate Acute Malnutrition (MAM) Through Nutrition-Specific Interventions*. CMAM Forum Technical Brief: September 2014
- Mucha, Noreen. *Preventing Moderate Acute Malnutrition (MAM) Through Nutrition-Sensitive Interventions*. CMAM Forum Technical Brief: December 2014.

- Webb, Patrick. *Standards of Evidence for Research on 'What Works' in the Management of MAM*. FAQ October, 2014.
- WHO. *Technical note: supplementary foods for the management of moderate acute malnutrition in infants and children 6–59 months of age*. Geneva, World Health Organization, 2012.

iii. Community Integrated Management of Childhood Illness (C-IMCI) or Integrated Community Case Management (iCCM) of Childhood Illness

The 2013 Lancet Series on Nutrition in updating the calculations on the relationship between under nutrition and mortality states: "we estimate that undernutrition in the aggregate—including fetal growth restriction, stunting, wasting, and deficiencies of vitamin A and zinc along with suboptimum breastfeeding—is a cause of 3·1 million child deaths annually or 45 percent of all child deaths in 2011."[5] For wasting, stunting and underweight alone, the estimates were that approximately 1.8 million deaths could be attributed to the effects of stunting and wasting. In the food-insecure communities where FFP works, community-based interventions to treat and prevent illness are key to lowering the burden of these conditions. CHW are increasingly being included in the interventions to strengthen overall health systems.

The importance of improving infant and young child feeding during illness is key to lowering the risks of mortality and health-related effects resulting from undernutrition. At the community level, the role of CHWs and community volunteers should be considered in working to achieve improvements in the nutritional status of the children in FFP target populations.

Information Resources

CORE Group, Save the Children, BASICS, and MCHIP. *Community Case Management Essentials: Treating Common Childhood Illnesses in the Community, A Guide for Program Managers*, 2nd Edition 2012.

The CORE Group's page on *Community Case Management of Childhood Illness* has additional resources and tools.

Caring for newborns and children in the community: Caring for the sick child (WHO) is designed to help lay community health workers (CHW) assess and treat sick children age 2-59 months.

iv. Health and nutrition of Women of Reproductive Age

Women have different nutritional needs during adolescence, pregnancy, and lactation. Women's pre-pregnancy and pregnancy nutritional status plays a critical role in fetal

[5] Robert E Black, Cesar G Victora, Susan P Walker, Zulfiqar A Bhutta*, Parul Christian*, Mercedes de Onis*, Majid Ezzati*, Sally Grantham-McGregor*, Joanne Katz*, Reynaldo Martorell*, Ricardo Uauy*, and the Maternal and Child Nutrition Study Group. "Maternal and child undernutrition and overweight in low-income and middle-income countries": 2013 The Lancet, Vol 382 August 3, 2013 pp.427 and following.

growth and development and her health and survival. This includes ensuring adequate micronutrients before and during pregnancy and lactation, especially folate, iron, calcium, iodine, and vitamins A and D through supplementation, fortification and food consumption. Education for mother on the benefits of early and exclusive breastfeeding should be part of birth preparedness. Health worker education and continuing training are essential to deliver quality nutrition services.

Information Resources

The *Nutrition through the life-course* (WHO) factsheet provides information on improving nutrition throughout the life course, separated by 0-6 months, 6-23 months, pre-school age, school age, adolescence, and adults with separate sections for pre-pregnancy and pregnancy.

The *Food and Care for Women* page (FAO) provides information on health and nutrition for women, including increased nutrient needs during pregnancy and proper birth spacing for improved health of women and infants.

Maternal Nutrition During Pregnancy and Lactation (LINKAGES Project and CORE Group) focuses on increased dietary needs during pregnancy and lactation.

The Case for Promoting Multiple Vitamin/Mineral Supplements for Women of Reproductive Age in Developing Countries (LINKAGES Project) discusses and provides guidance on the selection of appropriate supplements for pregnant women and women of reproductive age in developing countries.

v. Reproductive Health and Family Planning

Family planning enables a woman to delay, time, space, and limit her pregnancies to ensure that pregnancy occurs at the healthiest times of her life, and thus helps ensure the healthiest maternal, newborn, and child outcomes. Family planning prevents maternal and newborn deaths by a) reducing the number of births and thus the number of times a woman is exposed to the risk of maternal mortality; b) preventing unwanted pregnancies and thus preventing the risk of induced abortion; and c) preventing demographically high-risk pregnancies. In addition, family planning allows families to achieve their desired family size, which may enable them to have only the number of children for which they can provide. All women, including adolescent girls, should have the information and access to services that allow them to choose whether and when to become pregnant. Increasing the understanding and support of men and boys is critical to the success of family planning efforts and should be included in any proposed family planning actions.

The Lactation Amenorrhea Method (LAM) is often a gateway method to postpartum family planning. Ante-natal care (ANC) visits are a good time to introduce the method, explain the three necessary criteria (exclusive or almost breastfeeding for infants under six months of age and no other foods, and no menstrual periods) to provide up to 98

percent of protection from a new pregnancy. Introduction of LAM post-partum provides time for CHW health system staff to educate families on other possible methods once the three criteria are no longer applicable.

Information Resources

The Advancing Partners & Communities (APC) activity is a USAID cooperative agreement implemented by JSI Research & Training Institute, Inc. (JSI) and FHI 360. The APC activity is available to FFP awardees for technical assistance and monitoring in family planning actions integrated into the food security activity. APC has a specific focus on conducting strategic solicitations for family planning programs to test innovations, conducting pilots, and expanding community-based services. The *APC Grants* page provides information for applying for grants.

The Family Planning Sustainability Checklist: A Project Assessment Tool for Designing and Monitoring Sustainability of Community-Based Family Planning Services (Knowledge for Health (K4Health) Project) is designed to assist community-based family planning project planners and implementers to identify key elements to incorporate in a community family planning project to increase the likelihood of family planning services continuing beyond the project's end. This guide includes a checklist and an outline for a facilitated workshop for use with project partners to identify strengths and weaknesses in the key systems needed to support continuity of family planning services.

Facts for Family Planning (Knowledge for Health (K4Health) Project) presents a comprehensive collection of key information and messages that anyone can use who communicates to others about family planning.

Institute for Reproductive Health -has experience in designing and implementing evidence-based programs that address critical needs in sexual and reproductive health. While IRH's family planning programming is broad, they are best known for their work on addressing the global demand for fertility awareness-based or natural methods. This work includes research on the development and implementation of new, easy-to-use fertility awareness-based methods of family planning such as the Standard Days Method (SDM), or CycleBeads.

vi. Nutrition Assessment, Counseling, and Support (NACS)

NACS is an approach for integrating nutrition into the care of patients with HIV and tuberculosis, as well as into other health services. The approach focuses on nutrition components of clinical services and fosters linkages between clinical facilities and community programs to prevent and treat malnutrition and to link clients to livelihood and economic strengthening support to improve long-term food security.

Information Resources

Defining Nutrition Assessment, Counseling, and Support (NACS)

Getting the Knack of NACS: Highlights from the State of the Art (SOTA) Meeting on Nutrition Assessment, Counseling, and Support (NACS)

The Essential Role of Nutrition in the HIV and AIDS Response

2. Social and Behavior Change Communication

Social and Behavior Change Communication is important in all sectors of FFP programming and can lead to improved nutrition practices at the community, household, and individual levels. Engaging persons of influence, particularly grandmothers, is an important part of SBCC as they can be formidable allies or obstacles to young mothers. SBCC activities must be grounded by in-depth formative research to ensure that societal factors, such as culture, geographic context, and participant perceptions, are appropriately considered and addressed. No one communication activity can achieve behavior change or be successful in influencing social norms. SBCC activities should be designed using a combination of interventions addressing policy, appropriate technology, education, and communication techniques addressing different levels of society with clear consistent messaging.

Information Resources

USAID's Infant and Young Child Nutrition (IYCN) Project has created a collection of tools and resources for use by community-based nutrition programs. The *Tools for reaching caregivers, households, and communities* collection includes literature reviews, social and behavior change communication resources for reaching a wide range of community members, and M&E tools. Informed by IYCN's experience implementing community approaches in eight countries, the tools fill specific program needs but can be adapted for use in other country settings.

The roles and influence of grandmothers and men: Evidence supporting a family-focused approach to optimal infant and young child nutrition report reviews evidence on the roles and influence of grandmothers and men on child nutrition, and offers recommendations for program implementers to strengthen community approaches for addressing malnutrition and improving results.

The Food Security and Nutrition Network *SBC Task Force resource library* features practical implementation-focused guides, tools, and training materials on SBCC.

Journal of Health Communication: International Perspectives. *Population-Level Behavior Change to Enhance Child Survival and Development in Low-and Middle Income Countries: A Review of the Evidence*. This special series includes several articles showcasing the evidence around behavior change in the context where FFP projects are implemented.

Interpersonal Communication & Community Mobilization

i. Infant and Young Child Feeding

Support for improved infant and young child feeding, such as improved WASH, spacing and timing of pregnancy and early child stimulation, should be part of a minimum package for good child growth and development. Improved infant and young child feeding includes early initiation of breastfeeding (during the first hour after birth), exclusive breastfeeding during the first six months of life, timely initiation of complementary feeding as well as responsive feeding, continued breastfeeding to 24 months or beyond, until the infant has outgrown the need, feeding of the sick child. During the period of complementary feeding, it is important to keep in mind frequency, amount, density, and use of food (variety, hygiene and safe food preparation and active feeding).

Information Resources

UNICEF programming guide on Infant and Young Child Feeding (IYCF)

IYCF Quick Reference Book (0-24 months) (Alive and Thrive-Ethiopia) aims to aid those who promote and support improved infant and young child feeding practices

Learning from the design and implementation of large-scale programs to improve infant and young child feeding

Adapting communication strategies for IYCF in different contexts

ii. Early childhood development

Early Child Development (ECD) interventions combined with optimal nutrition in the first years of life lays the foundation for young children's capacity to learn and lead healthy productive lives. ECD has a strong influence on children including setting behavioral patterns, educational attainment, occupational opportunities, and ultimately their lifetime health status.

ECD services for preschool children in developing countries are primarily community and clinic-based programs and are essential to strengthen children's physical/social environment and monitor their nutritional well-being after the first 1000 days. A combination of psychosocial and nutrition interventions can be delivered by CHWs and other community members to promote optimal feeding and other caring behaviors by families that are fundamental to child health and development.

Information Resources

The goal of the *U.S. Government Action Plan on Children in Adversity* is to achieve a world in which all children grow up within protective family care and free from deprivation, exploitation, and danger. Objective 1 of the plan highlights Strong Beginnings with guidance on early childhood development and prevention of stunting.

The *Advantages and challenges of integration: opportunities for integrating early childhood development and nutrition programming* *paper* from the Annals of the New York Academy of Sciences addresses integration of early child development programming into nutrition programs, and the challenges and advantages created.

The *Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world* paper, part of The Lancet's Child Development Series, examines the effectiveness of child development interventions in developing countries.

Supplementing Nutrition in the Early Years: The Role of Early Childhood Simulation to Maximize Nutritional Inputs

Clean, Fed, and Nurtured presentations from January 2013

3. Food Assistance for Improved Nutritional Outcomes

Partners proposing food-assisted interventions such as food transfers (food or cash/voucher) for vulnerable women and children under the age of two should consider appropriate conditionality of the food assistance and appropriate targeting to ensure participants have access to a comprehensive package of nutrition activities to complement the food transfer. The most important aspect of a conditional food transfer is to ensure that both mother and child receive essential energy and nutrients during the critical first 1,000 days. Participant age, nutritional status, sex, pregnancy status, and household dietary patterns should be taken into consideration in order to ensure cost-effective optimal nutritional benefit in food assistance programs. Activity and ration design should always plan for phase over to locally available foods, so that appropriate dietary diversity and adequate complementary feeding can be sustainable beyond the life of the program. *Gaps in availability of or access to nutritionally dense foods should inform agriculture and livelihood activity design.*

i. Commodity selection and Ration Design

Information Resources

The *Commodity Reference Guide Fact Sheets* provides information on commodities currently available for FFP programming. Each fact sheet contains the following sections: general information with descriptions of the food commodity, programming guidance, nutrition/preparation information detailing the commodity's components and preparation instructions, nutritional content, U.S. Department of Agriculture's commodity specifications, ordering considerations, and links to relevant industry groups for more information on the commodities and food products.

USAID's *Delivering Improved Nutrition: Recommendations for Changes to U.S. Food Aid Products and Programs* is a two-year review and assessment of quality issues relating to Title II food aid products. The review is part of a long-standing USAID effort to improve the quality of food aid products and programs as priorities and needs evolve.

The *WFP Specialized Nutritious Foods Sheet* provides information on the specialized nutritious foods that WFP provides. The sheet lists the foods by use and provides useful information such as intended participant group, daily ration size, key ingredients and shelf life.

These *guidelines* from UNHCR, UNICEF, WFP and WHO contain a ration planning tool for emergencies, including how to choose commodities, factors affecting food preparation, management of related issues, and recommendations for monitoring and follow-up. Though designed for emergencies, some portions also apply to general ration design.

NutVal is a free, downloadable nutritional content tool for planning and monitoring food assistance rations.

Title II Technical Reference Materials. TRM-01: Preventing Malnutrition in Children Under 2 Approach (PM2A): A Food-Assisted Approach (USAID) provides guidance on ration calculations.

ii. Locally produced specialty nutrition products, including fortified flours, safety guidelines

Under the 2014 Farm Bill legislation, Title II 202(e) funds can be used for local procurement of specialty food products.

Information Resources

Examples of locally produced specialty nutrition products include:

- *Wawa Mum* is a chickpea-based paste that can be used to supplement the diets of small children and is produced in Pakistan.
- *Unimix* is a fortified blended food that can be made into porridge for children under five years of age produced in Kenya.

WFP's *Managing the Supply Chain of Specialized Nutritious Foods* provides guidance on supply chain management for specialized nutritious foods.

The *International Lipid-Based Nutrient Supplements (iLiNS)* Project examines the efficacy and impact of providing lipid nutrient supplements to infants and pregnant and lactating women

D. Natural Resource Management

Overview

FFP projects seek to develop NRM systems and practices that support resilient livelihoods, serve as a source of sustainable wealth for direct and indirect participants, and contribute to the effective and equitable governance of natural resources. Vulnerable smallholders in targeted regions are challenged by weathered and nutrient-poor soils; erratic rainfall characterized by high rates of run-off and extended intervals between events: and periodic droughts. These characteristics limit yields and, in years of hard drought, lead to failure of annual staple crops, a situation where marginal households may be forced to sell their productive assets in order to survive, losing their very means to make a living from the land. These biophysical challenges are exacerbated by socioeconomic constraints that (a) create disincentives for risk-averse producers to invest in technologies that have a track record in overcoming biophysical constraints and (b) would limit the benefits accrued from those investments. These constraints include insecure property rights; limited access to markets, information, capital, appropriate technical assistance and inputs; poor infrastructure; and gender inequality.

USAID's *Nature, Wealth, and Power 2.0: Leveraging Natural and Social Capital for Resilient Development* outlines a flexible framework for improving rural development through better integration of biophysical, economic and governance dimensions raising the profile of both economic and power issues as key to poverty reduction and sustainable natural resource management in rural areas.

http://rmportal.net/library/content/nwp-2.0

SECTOR FOCUS AREAS

1. Soil Productivity

- soil organic matter
- soil fertility
- conservation agriculture

Information Resources

Practices that influence the amount of organic matter (FAO) examines practices that both decrease and increase soil organic matter. It discusses the factors that lead to reduction of soil organic matter including decreased biomass production, decreased organic matter supply and increased decomposition rates. It also describes practices that increase soil organic matter including compost, cover crops, green manure, crop rotation, perennial forage crops, zero or reduced tillage and agroforestry.

Conservation Agriculture and Sustainable Crop Intensification in Lesotho (FAO) presents the results of an evaluation of conservation agriculture work in Lesotho. The

evaluation found that the adoption of a particular technology, a planting basins system, locally called *likoti*, resulted in higher agricultural productivity, greater environmental sustainability and improved livelihoods and sustainability.

Conservation of natural resources for sustainable agriculture (FAO) explores the importance and management of cover crops in sustainable agriculture systems. FAO discusses the positive impacts, including but not limited to soil protection, controlling week growth, adding soil organic matter, and improving soil structure and the challenges including an increased management burden, and an induced nitrogen deficiency at the beginning of the cropping cycle due to cover crop decomposition.

Handbook for Integrated Soil Fertility Management (Africa Soil Health Consortium) is designed to train extension workers in soil fertility management techniques and for workers involved in rural development that would like to learn more about the principles and practices of Integrated Soil Fertility Management (ISFM). Topics covered include the need for ISFM; the principles of IFSM; soil fertility management; targeting IFSM; and crop production.

2. Water Management

- water harvesting for production
- soil water
- erosion control

Information Resources

Improving Land and Water Management (The World Resources Institute) discusses a wide range of land and water management practices that can address land degradation and increase long-term agricultural productivity. The paper highlights four of the most practices that are relevant to the drylands of Sub-Saharan Africa, which are agroforestry, conservation agriculture, rainwater harvesting and integrated soil fertility management.

"Amenagement en courbes de niveau,"Increasing Rainfall Capture, Storage, and Drainage in Soils of Mali (University of Hawaii) describes a water harvesting technology as utilized in the Sahel. The study found that use of this technology led to substantially more water was retention in soils where the ACN technology was installed than where it was not present. The benefit of this technology was greatest at the end of the rainy season when soil moisture levels are critical for good crop yields. There is no online link available, but the article is available from FFP upon request. Kablan, R., & et.al. (2008). "Amenagement en courbes de niveau:" Increasing Rainfall Capture, Storage, and Drainange in Soils of Mali. Arid Land Research and Management, 22:62-80.

Land husbandry - Components and strategy (FAO) is a wide ranging publication on erosion and different strategies to address it. The publication addresses concepts of land husbandry and erosion control and provides a series of case studies from around the world.

Agricultural Water Storage in an Era of Climate Change: Assessing Need and Effectiveness in Africa (International Water Management Institute) describes different agricultural water storage options and describes the development of a simple diagnostic tool, which can be used to provide a rapid evaluation of the need and effectiveness of different water storage options, under existing and possible future climate conditions.

3. Diversified and Productive Landscapes

- trees/agroforestry
- management of productive assets
- governance – management of common assets
- resilience

Information Resources

Natural Resource Management and Development Portal (USAID) provides an open access communications bridge between organizations, communities, consortia and global partners working on an integrated approach to NRM linking nature, energy and human health.

Climate-Smart Agriculture: Smallholder Adoption and Implications for Climate Change Adaptation and Mitigation (FAO) reviews adaptation and mitigation benefits from various practices, and focuses on empirical evidence concerning costs and barriers to adoption. Findings indicate that up-front investment costs can be a significant barrier to adoption for certain investments and practices, and that potential synergies between food security, adaptation and mitigation opportunities, as well as costs, can differ substantially across different agro-ecological zones, climate regimes, and historical land use patterns.

Re-Greening the Sahel: Farmer-led innovation in Burkina Faso and Niger (IFPRI) discusses the various techniques employed by farmers for water harvesting and agroforestry in the Sahel that have transformed large swaths of the region's arid landscape into productive agricultural land, improving food security for about 3 million. The paper focuses on the process by which these innovations emerged, through experimentation, exploration, and exchanges by and among farmers themselves, as possibly the most vital lesson learned from this experience.

Contingency Planning Guide (IFRC) provides an overview of the key elements of contingency planning.

Community-Based Disaster Preparedness (IFRC) planning helps to build the capacity of local community groups to prepare for and recover from a shock or stress. For an example of a community-based disaster preparedness program, refer to:

Climate-Resilient Development: A Framework for Understanding and Addressing Climate Change (USAID) offers a simplified approach to helping decision-makers at all levels understand the risks and opportunities that climate change may pose, and address them in ways that enable development to continue despite a changing climate.

E. Water, Sanitation, and Hygiene

Overview

FFP's integrated and multi-sectoral development programming provides a unique opportunity for implementing partners to link and address the underlying causes of malnutrition, including access to and use of adequate and potable water and improved sanitation.

FFP projects implement WASH interventions primarily by (1) improving food utilization, through water supply, sanitation, and hygiene activities that improve environmental health conditions and decrease the fecal-oral route of disease transmission; and by (2) expanding food availability, through increased water availability for agricultural or other income generating activities. To address food utilization (i.e. including dietary intake and the ability to absorb and use the nutrients in the body), FFP strongly encourages integrated WASH and nutrition programming, and requires that any proposed WASH intervention should have a hygiene component, or build upon an existing hygiene program.

FFP development projects target the most vulnerable and underserved populations. To that end, partners should carefully consider a community's available resources and technical capacity when designing WASH interventions. Implementation of WASH interventions, especially of water and sanitation infrastructure, should yield long-lasting impacts on community resilience (e.g., health metrics, economic productivity) over the design life of the system.

Information Resources:

USAID's WASH guidance provides partners with insight into donor funding priorities, key technical interventions, and important policy and regulatory information. Key documents related to WASH and nutrition include:

- *USAID Water and Development Strategy for 2013 – 2018*
- *Integrating, Water, Sanitation, and Hygiene into Nutrition Programming* (USAID-WASHPlus, 2013)
- *Water, Sanitation, and Hygiene: Essential Components for Food Security* (Technical Brief by USAID-WASH Plus, 2013).

The *Center for Affordable Water & Sanitation Technology* (CAWST) provides technical WASH services to implementers, as well as overviews, customizable fact sheets, and links to resources on a variety of WASH topics, including sanitation infrastructure,

household water treatment.

The U.S. Centers for Disease Control's (CDC's) *Safe Water System* provides information resources dedicated to WASH interventions for low income countries. They serve as a research partner to many development interventions linking water quality and public health. Their Safe Water System website provides links to resources and case studies on topics, including behavior change, safe water storage, and hand washing.

Sanitation and Hygiene Applied Research for Equity (SHARE)

The *Sustainable Sanitation Alliance* (SUSANA) serves to link on-ground experience with practitioners, policy makers, researchers, academics. Includes a library of case studies, conference materials, training materials, cartoons, and research.

Water, Engineering, and Development Center (WEDC) Knowledge Database

The *Water Supply and Sanitation Collaborative Council* (WSSC) provides links to networks, reports, and publications on the following WASH-related topics:

- CLTS
- Sanitation (financing, sustainability, urban-specific)
- Solid waste management
- Hygiene (handwashing, MHM, menstrual hygiene management)
- Water (point-of-use treatment, multi-use systems, rainwater harvesting, rural water)
- Disaster risk reduction and Emergency interventions
- Climate Change and WASH
- Operations & Maintenance
- Capacity Building

SECTOR FOCUS AREAS

1. Linking WASH and Nutrition

To address food utilization (i.e. including dietary intake and the ability to absorb and use the nutrients in the body), FFP strongly encourages integrated WASH and nutrition programming, and would expect that any proposed water interventions include a hygiene component, or build upon existing hygiene activities.

Information sources

Impact evaluation of community-led total sanitation (CLTS) in rural Mali (AJ Pickering, ML Alzua, et al. 2014, UNC Water & Health Conference) reports on the results of a randomized control trial (RCT), evaluating the results of a two-year CLTS intervention, including adoption and use of private latrines, as well as health impacts in children less than five years. The study concludes that the CLTS program has a "positive and

significant impact on growth outcomes among children", including significant increases in height-for-age (+0.16 height-for-age Z-score, HAZ) and a reduction in stunting (RR: 0.87, CI: 0.75, 1.0).

Water, sanitation, and hygiene (WASH), environmental enteropathy, nutrition and early child development: making the links (GM Ngure, BM Reid et al., 2014, Ann. N.Y. Acad. Sci, 1308: 118-128) reviews the current scientific evidence on poor hygiene as a risk factor in poor early childhood development (ECD). The authors review the correlation between WASH practices and stunting and anemia, which are known risk factors for child developmental deficits. The pathways through which WASH may affect early child development (e.g., inflammation, stunting, and anemia) are also reviewed, and the authors identify three key vectors of fecal-oral transmission for young children—soil, poultry feces, and infant food—that are not often addressed within WASH interventions. Environmental enteropathy is reviewed as a prevalent subclinical condition of the gut that may be a key mediating pathway linking poor hygiene to developmental deficits.

Water, sanitation, hygiene, and nutrition: successes, challenges, and implications for integration (J Teague, EA Johnston & JP Graham, 2014, Int J Public Health: 1-9) reports on the findings from 16 interviews with stakeholders from the WASH and Nutrition sectors. When asked about key factors currently limiting the integration of WASH and nutrition programming, they cited the following needs: (1) Strategy (a defined method for integrated programming); (2) Coordination (collaboration of key donors); and (3) Funding (donor support for integrated programming). Respondents also reported on the most common methods of integration, including (1) Messaging; (2) Behavior change programs; (3) Targeting the same participants; (4) Integrating the strategy; and (5) Cross-Training.

Water, sanitation and hygiene for the prevention of diarrhea (S Cairncross, C Hunt et al., 2010, Int J Epidemiology, 39:1193-1205) reports on a meta-analysis of the health impacts, measured as diarrhea mortality, of three WASH interventions—(1) handwashing with soap; (2) water quality improvements; and (3) excreta disposal. The authors found consistent and striking reductions in diarrheal risk with the intervention handwashing with soap—they propose a risk reduction of 48 percent when this intervention was applied. They found 17 percent and 36 percent reductions in diarrheal risk associated with water quality improvements and excreta disposal, respectively, though the number of studies and study rigor was limiting.

How to better link WASH and nutrition programs (CONCERN International) provides guidance on how to make WASH programs more nutrition-sensitive, and how nutrition programs can incorporate more WASH aspects. They also provide links to standard indicators and the relevant DHS questionnaire data on WASH and nutrition, as wells as links to relevant reference material.

Evaluating Household Water Treatment Options: Health-based targets & microbiological performance specifications (WHO, 2011) provides guidance on household or 'point-of-use' (POU) water treatment technologies and their relative efficacy against three

different pathogen classes. Using an 'allowable risk' approach and the metric 'disability-adjusted life year' (DALY), the authors classify treatment technologies based on pathogen removal rates. The document also provides guidance on how to evaluate the microbial performance of treatment options by Identifying key pathogen classes and reference pathogens, establishing health-based microbiological performance targets for POU treatment technologies, and providing guidance on POU testing protocols. Note that free chlorine disinfection is classified as interim treatment, where it is effective against bacteria and viruses, but largely ineffective against protozoa.

USAID Webinar on Environmental Enteropathy & WASH (Food Security and Nutrition Network, 2013) discusses the most recent research findings on environmental enteropathy (EE), including how WASH can be integrated into USAID nutrition and other programs. Website synopsis: "The very best programs focusing on nutritional intake have only solved 1/3 of the stunting problem, and no nutritional research trial has ever normalized linear growth. Adequate diet is necessary for healthy growth, but is not sufficient. Meanwhile, improved [WASH] is associated with decreased stunting and has the same average effect as the very best infant feeding interventions. We now know that [EE], a condition of the child's intestine, is brought on by living in a dirty environment, can have a very profound impact on stunting, and can be partially reversed through WASH interventions."

2. Water Supply Infrastructure

Expanding water access and availability is central to improving food availability—a tenet of FFP development programs. To that end, FFP-funded WASH interventions may incorporate water supply and/or water distribution infrastructure. This sub-sector focuses on the provision of safe drinking water for human consumption and domestic activities, though it may also include multi-use water sources that meet the needs for productive activities, such as agriculture, livestock watering, or other livelihood activities). To reflect the broader importance of fecal-oral disease transmission on nutrition and health, hygiene promotion must accompany all water supply infrastructure projects. Proposed activities must be evidence-based and of sound technical design, and clearly target identified public health risks. All infrastructure projects should, wherever possible, apply regional or national standards and codes for technical design and construction. Where these are not available, international norms and standards should be adhered to. All FFP development projects should employ approaches and technologies that are appropriate for the context.

Information Resources

Do operation and maintenance pay? (E Bauman, 2006, Waterlines: v25:1) reviews the principles of life cycle costing for rural water supply, using the example of a borehole-handpump combination. The author provides valuable heuristics to consider in designing a rural water system, including:

- The average failure rates of handpumps in Africa is 30 percent

- The average lifespan of handpumps is reduced from 10 years to 5 years when communities alone are responsible for maintenance and repairs ('Model 1'), versus a model of shared responsibility between the community, local authorities, and central government ('Model 2');
- The community's average cost of water increases from $0.48 per m^3 (under Model 2) to $0.60 per m^3 (under Model 1);
- Under Model 2, an average of $235 per pump/yr is needed to cover the life cycle costs, and they recommend a cost breakdown of: $65 per pump/yr from communities, $140 per pump/yr from local government, and $30 per pump/yr from central government

User financing of rural handpump water services (RC Carter, 2010) reviews the key elements for sustainability of rural water supplies (RWS), including money for recurring expenses, consumer acceptance of the technology and required resources, adequate source supply, and sound design and construction. The author subsequently reviews the breakdown of tariffs collected at RWS points, and estimates that:

- Households pay, on average, $0.20 per month for water, which equates to a theoretical annual income of $120 per pump to the rural water committee (RWC) (50 households per handpump; 6 m^3/pump/day production);
- Actual tariffs collected by RWCs are only $30 – 40 per pump per year;
- Average tariffs only cover 1/7 of the life-cycle O&M costs of handpumps ($235 per pump per year)

Guidelines for resolution of problems with water systems (Improve International, 2014)

Hydrogeologists without Borders UK is an international volunteer organization of more than 200 hydrogeologists and groundwater experts that provide hydrogeological assistance to humanitarian organizations. Their services include:

- Hydrogeological support in non-emergency situations (e.g. carrying out Water Resource Assessments, groundwater monitoring, groundwater quality issues and borehole or well construction);
- A rapid hydrogeologist response unit, able to deploy a hydrogeologist quickly to the field, with equipment, to support groundwater related works;
- Hydrogeological contract management support, to facilitate engagement with local hydrogeologists and contractors; evaluate and ensure quality of work carried out.

Linking technology choice with operation and maintenance in the context of community water supply and sanitation (WHO & IRC, 2003) serves as a technical selection guide for water supply and sanitation that takes into account project area, community capacity, and long-term requirements. Information on technology types, including O&M requirements of each technology, the actors involved, and the skills needed to maintain them is provided. The document covers the following water supply topics:

- The technology selection process, including community involvement and assessment of O&M needs;
- Water source and intake options;

- Water-lifting devices, including various mechanized and manual pump designs;
- Centralized water storage and treatment options, including chlorination and slow sand filters.

Water Supply Well Guidelines for use in Developing Countries (S. Schneider, 3rd ed., 2014) is a guidebook on the *minimum*, technical requirements for basic protection of groundwater resources, and covers groundwater wells intended for domestic, municipal, community, industrial, commercial, irrigation and/or livestock use. The guidance is intended to supplement, not replace, any existing local, municipal, provincial, or national laws in each area of each country. They provide specific guidance on:

- Well siting;
- Well construction, including drilling methods, lining/sealing, and disinfection;
- Pumping equipment; and
- Maintenance issues.

Guidelines for Drinking Water Quality (WHO, 4th ed., 2011) are developed by the WHO as international norms on water quality and human health, on the basis of risk assessment methodologies. The 4th edition of the Guidelines covers topics, including drinking water safety and specific guideline values; microbial hazards; climate change's effect of water temperature and rainfall patterns; and chemical contaminants, including pesticides, arsenic, lead, nitrate, fluoride, selenium and uranium. Key information that partners may find useful is as follows:

- A review of the relative efficacy of centralized water treatment technologies is covered on page 138;
- The efficacy of various household water treatment technologies is provided on page 145;
- Guidelines for verification of microbial quality are on page 149;
- Guideline values for naturally occurring chemicals are covered on page 178.

Note that for verification of the microbial quality of water, *E.coli* remains the recommended indicator of fecal contamination, and the WHO advises that no counts of E.coli should be detectable in any 100 mL sample of water intended for drinking or consumption.

Rural Water Supply Network (RWSN) provides evidence-based documentation, supporting research, and policies and practices for viable technologies and approaches that improve rural water supply. Some key resources they link to on water supply:

- Hand pumps: where now? (RWSN & SKAT, 2014) provides a synthesis of online discussions on key themes and issues around implementation of hand pumps, including: (1) water quality (occurrence of high iron concentrations in hand pump water and best practices to avoid); (2) procurement and quality control; and (3) O&M and sustainability (including technical best practices to maximize pump lifespan and water quality).
- Hand Drilling Directory: Cost Effective Boreholes (UNICEF & Danert, 2009) provides a short summary of hand drilling techniques, and a country-by-country overview of the prevalence of hand drilling; and organizations providing support

or implementation. Countries covered include Bangladesh; Bolivia; Chad; Mali; Madagascar; Nicaragua; Niger; and Nigeria.

3. Sanitation Infrastructure

The Sanitation Infrastructure sub-sector focuses on infrastructure for the safe disposal of human excreta. Activities related to the management of sanitation infrastructure fall under the Hygiene Promotion Sub-sector. Proposed activities must be evidence-based and clearly target identified public health risks. Recovery and development interventions should utilize approaches appropriate for the context.

Information Resources

The *Water, Engineering, and Development Center (WEDC) Knowledge Database* provides technical WASH guidance on a range of topics:
Latrine Pit Design
Latrine Slab Engineering
Selecting Water, Sanitation, and Hygiene Indicators
Managing hygiene promotion in WASH programs
Introduction to Water Safety Plans
Preventing Transmission of Fecal-Oral Disease

A Practical Guide for Building a Simple Pit Latrine—How to build your latrine and use it hygienically, for the dignity, health, and well-being of your family (GWI West Africa) is designed to assist individual households and families who have already decided to build their own latrine. It serves as a step-by-step pictorial guide to: latrine siting, materials and construction, use, maintenance, and pit emptying.

CAWST provides fact sheets for a number of types of latrines and other sanitation infrastructure, including:

- Simple pit latrines;
- Arboloo latrines;
- Aqua-Privy latrines;
- Biogas latrines;
- Composting latrines;
- Manual on Low-Cost Sanitation

SSWM-EAWAG's *Implementation, Planning & Process Tools to Optimize Water Management and Sanitation Systems* provides technical references for sustainable sanitation and water management.

Single Pit Latrines Chapter and Technical Reference Manual (SSWM-EAWAG) is a technical guide on simple, single pit latrines, including key components, design considerations, costs, operations and maintenance, and associated health risks.

Considerations for Building and Modifying Latrines for Access (WASHPlus) is a technical guide on latrine construction that also provides pictorial options for how to

modify latrines for greater accessibility for the elderly, people with disabilities, illness, or limited mobility. The guide also provides a checklist of minimum standards for school sanitation or hygiene facilities.

4. Hygiene Promotion

The Hygiene Promotion Sub-sector focuses upon interventions intended to reduce disease transmission through improved personal hygiene behaviors and management of infrastructure. Proposed activities should be evidence-based and clearly target identified public health risks.

Information Resources

Community-Led Total Sanitation Knowledge Hub (Institute for Development Studies (University of Sussex))

Managing Hygiene Promotion in WASH Programmes (WEDC Guide 13) Eds: Reed, Medland, Louise (ed), Reed, Brian (ed), Shaw, Rod (ed/ill); Water, Engineering and Development Centre, Loughborough University, UK, 2014.

Towards better programming—a manual on hygiene promotion (UNICEF) presents methodologies to promote of behavioral change for safer hygiene practices, and to help make hygiene promotion programs more effective. The objective of the manual is to provide a tool that will contribute towards a reduction in diarrheal diseases.

The CDC provides a number of information resources dedicated to WASH interventions, as part of the *Safe Water System* approach for low-income countries. Links to resources and case studies on topics include:

- Behavior Change Communications, Social Marketing, and Community Mobilization;
- Safe Water Storage, including minimum specifications, and production information; and
- Tippy Tap Design & Construction

Menstrual Hygiene Management (WSSC Topic Resources) provides resources for practitioners, including menstrual hygiene management (MHM) training materials, videos, in-depth training resources, advice sheets, and lessons learned.

Menstrual Hygiene Matters (WaterAid) reviews the existing need for MHM as an integrated component of any WASH program. They review cultural and practical challenges associated with MHM, and the benefits of integrated MHM programming on education, health, social inclusion, and psychological well-being. WaterAid also developed modules and toolkits intended for practitioners that cover a range of MHM topics.

CAWST's *Household Water Treatment* provides an overview of household water treatment, and provides detailed fact sheets on 20+ technologies and methodologies for POU treatment. The fact sheets report on the relative effectiveness for removal of Bacteria, Viruses, Protozoa, Helminths, and Turbidity, as well as provide cost estimates, and operating criteria. Links to select fact sheets:

- Biosand Filters;
- Ceramic Candles;
- Straining;
- Membrane Filters;
- Chemical Coagulants/ Natural Coagulants

USAID's *EH Project: A bibliography of selected articles on household water treatment and safe storage* is an annotated bibliography of 24 articles published in 2009 on various household water treatment technologies, including:

- Covered water storage containers;
- Biosand filters;
- Ceramic media filters;
- Disinfection; and
- Flocculants plus Disinfectants.

5. Irrigation

The Irrigation Sub-sector focuses on infrastructure for the application of water to the land or soil. All irrigation interventions should follow the "do no harm" principle, taking into consideration the potential adverse impacts on the social and physical environment, and will undergo a thorough environmental review.

With few exceptions, FFP does not fund gray water irrigation. With a very strong justification, FFP may fund household garden programs in water- scarce environments that use kitchen gray water if the water is not applied directly to the edible portion of the plant. FFP will require seeing a design, explanation of how public health risks are mitigated, and a monitoring plan. FFP does not fund proposals for accessing deep aquifers for irrigation. Generally, FFP will not fund mechanized irrigation systems, but with strong justification may consider co-funding.

Information Resources

Multiple-Use Water Services: Toward a Nutrition-Sensitive Approach (Feed the Future) is a review of six key organizations and programs implementing multiple-use water systems (MUS) with nutrition as an explicit benefit and indicator of program results. The report provides specific practices and projects that show promising results, such as 'nutrition through literacy training' by iDE-Nepal, and monitoring of nutrition indicators for each MUS program. The report details three key areas where many MUS programs are lacking:

1. *Assumption without action*: many programs failed to look holistically at all potential causes of health and nutritional deficiencies, and did not "support all activities and conditions needed to achieve improved nutrition";
2. *Lack of nutrition objective*: many interventions fail to "include nutrition as an explicit goal or objective", which results in subsequent failure to use the appropriate indicators and funding; and
3. *Assumption without verification*: "include health-related or nutrition-specific activities and/or did not measure the nutritional impact of their MUS programs"

A Guide to Multiple-Use Water Systems (Rockefeller Foundation & Winrock International). Section 2 of the Guide provides a step-by-step approach to the planning, implementation, and evaluation of multiple-use water systems (MUS). They recommend community assessments to survey household practices and preferences on water, health, and livelihoods. System design should consider and strive to maximize: Desirability; Technical and Environmental Feasibility; and Financial Viability. Project evaluation should cover: (1) Outputs (i.e. what services have been delivered?); (2) Outcomes (i.e., What outcomes have resulted from the services?); and (3) Impacts (i.e. what has been the overall impact?).

6. Environmental Health

There is a growing body of scientific evidence linking nutritional deficits to poor water and sanitation conditions; however, the nature of fecal-oral disease transmission is not limited to clean drinking water and improved sanitation, and it often relates to the greater issue of environmental health or cleanliness. In communities with poor nutritional status, pathways for fecal-borne disease transmission often exist outside of the scope of traditional WASH interventions. FFP encourages partners to look holistically at all potential routes for fecal-oral transmission and to work with communities to develop WASH approaches that target the root causes of disease transmission. Three common pathways for disease transmission associated with household and community environmental health:

- Children's interaction and ingestion of animal's fecal material, especially in the case of free-range livestock and contaminated soils;
- Vector transmission of fecal material and pathogens;
- Poor sanitation during rainy seasons caused by inadequate drainage.

To this end, FFP's environmental health interventions focus on community-level activities aimed primarily at drainage, solid waste management, and vector control activities. Proposed activities must be evidence-based and clearly target identified public health risks. All program activities should strive to apply existing local, regional, or national standards and codes where available and appropriate; intervention technologies should utilize approaches appropriate for the context.

Information Resources

The *Handbook on Scaling up Solid and Liquid Waste Management in Rural Areas* (WSP) was designed for program managers and implementers, and focuses on the

planning, institutional, community mobilization, and financial dimensions of implementing a waste management program in rural areas.
Source:

Solid Waste Management in Emergencies (WHO) is a technical note on key activities in dealing with solid waste in emergency settings.

Health Issues Related to Drainage Water Management (FAO) provides an overview of drainage, water management, and health, including:

- Water Related Disease and Vectors;
- Integrated control of transmission of vector-borne diseases;
- Environmental Management measures; and
- The Development of Control Strategies

IV. Program Quality

A. Monitoring and Evaluation

1. Annual Monitoring Plan

Overview

Annual Monitoring plan describes a project's plan and methods for collecting, management, and processing data for annual monitoring indicators. Typically it includes list of annual monitoring indicators and their definitions, descriptions of the data collection systems, data flow, data management, data processing including aggregation and disaggregation and any other manipulation to achieve the annual reporting values. For partnership and consortium-managed awards, it is important to describe how partners share responsibilities for these processes and identify where responsibility lies for finalizing the values. The methods and responsible parties for collection, aggregation, manipulation and reporting may differ for different indicators. Typically annual indicators measure change among direct[6] participants.

Data collection

There are two general approaches for collecting data for annual monitoring. One makes use of data collected routinely as part of the implementation or the project M&E processes. The second requires a survey of project participants, specifically designed and implemented for the purpose of annual monitoring. Different approaches may be

[6] Direct participants include individuals, households, communities, institutions, micro, small, and medium enterprises that benefit directly from project intervention. This includes those that may not have direct contact with project staff but who are exposed to the intervention through direct, planned channels, e.g., those reached through cascade training or a facilitative approach.

necessary for different indicators. An annual monitoring system may require use of a combination of different approaches depending on the indicator type, coverage of service delivery, feasibility of an approach, cost, and capacity of the project's M&E team.

Using routine monitoring data
Projects routinely collect data about activities and project participants to follow the implementation, outputs, and outcomes of project activities. For example for agricultural activities, implementing field staff, agricultural extension workers or M&E personnel usually collect data from participating farmers on a regular basis during farmer field schools and visits to the farmers' fields. Lead farmers maintain diary and project staff collect data from farmer's diary. For MCHN components, implementing staff, community-based health workers, midwives or health volunteers collect information directly from participating women, men or children from beneficiary health records (maternal health cards, clinic registers) during home visits, and at sites of growth monitoring, food distribution and health or nutrition education, or community health volunteers maintain diary.

Annual Surveys
Annual monitoring surveys collect data only from project participants. Methodology, design and implementation of annual monitoring surveys are complex. Projects include numerous interventions, each of which benefits different individuals, households, and communities. Therefore, when designing an annual survey, a sampling frame must be developed for each set of project participants. Samples should be drawn from different sampling frames makes it complicated. Multiple surveys may be needed to collect data for all indicators that a project needs to track.

Information Resources
The Feed the Future (FTF) Agricultural Indicator Guide provides detailed guidance on the following four indicators:
5. Indicator (4.5-16, 17, 18): Gross margin per hectare, animal, or cage of selected product
6. Indicator (4.5.2-5): Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance
7. Indicator (4.5.2-2): Number of hectares under improved technologies or management practices as a result of USG assistance
8. Indicator (4.5.2-23): Value of incremental sales (collected at farm level) attributed to FTF implementation
The guide presents clear and understandable guidance to ensure best practices in the definition, collection, and use of key agricultural indicators for the annual performance monitoring of agricultural development activities under the USG's FTF Initiative. The guide provides clarifying information pertaining to, and examples of best practices for,

the collection and use of key indicators to enable adherence to the highest possible technical standards.

2. M&E Staffing Plan, Organogram, and Capacity Development Strategy

Overview

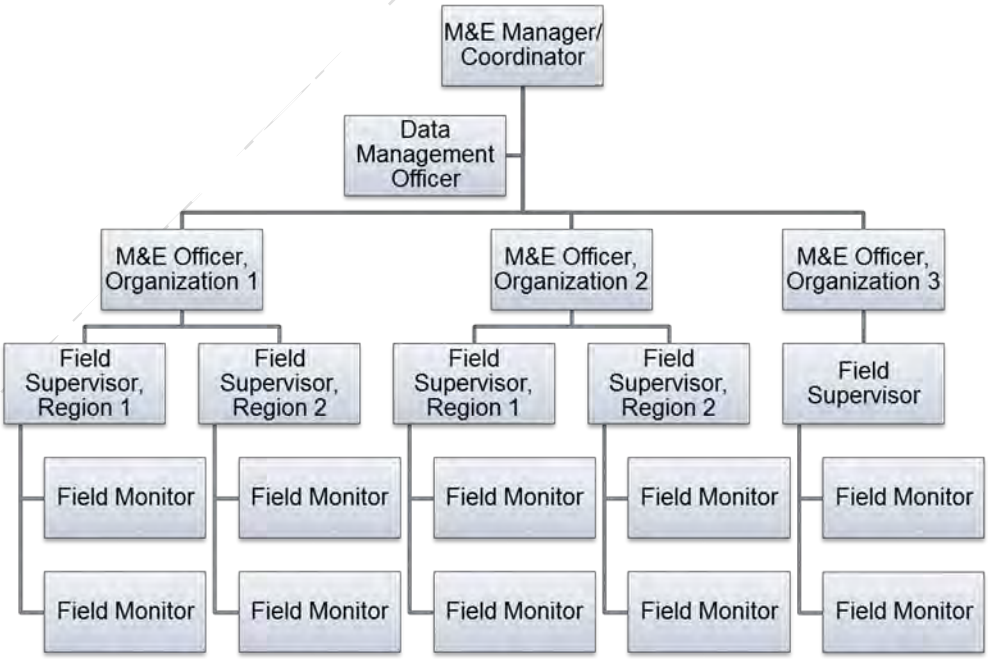
An M&E staffing plan and capacity development strategy for M&E staff members are integral part of an M&E plan.

M&E Staffing Plan

An M&E staffing plan identifies all staff positions that contribute to the achievement of the plan including staff with M&E responsibilities from the implementing partner organizations, and describe the roles/responsibilities and required capacities of individuals for each position. A staffing plan includes an organogram that graphically displays the lines of supervision and reporting among them. The position titles in the staffing plan and on the organogram should correspond to the titles used in the project budget narrative and detail.

In the case of partnerships or consortium-managed projects, the plan identifies the employer for each position in the descriptions and on the organogram and the staffing plan describes how M&E staff will collaborate and divide responsibilities across agencies.

Figure 5 Example of an Organogram



M&E Capacity Development Strategy

An M&E capacity development strategy describes gaps in the skills of current and anticipated M&E staff; how these needs will be identified and addressed; the timing of activities; and how M&E staff capacity will be strengthened as a continuous process throughout the course of a project. Projects may use a variety of different approaches and modalities for developing staff capacity, which may include but are not limited to formal or on-the-job training, mentoring, distance learning, and rotations. The strategy includes plans for refresher courses and capacity-building for new staff members, based on an estimated attrition rate.

The M&E budget should clearly identify the costs related to each capacity-building activity taking regular staff turn-over into account and include approaches for recurrent training.

B. Learning, Knowledge Sharing, and Capacity Strengthening

Overview

Strong knowledge systems are essential in the complex and often fragile environments in which FFP development food assistance projects are implemented. Clear understanding of changing local contexts, the shifting roles, perspectives and attitudes of stakeholders, and their complex interactions can dictate project adjustments and adaptations that will increase the effectiveness and appropriateness of the work. Active learning processes can enable shared understanding of local vulnerabilities, assets and coping strategies, as well as barriers and enablers to implementation and to sustained change. Efforts to strengthen both institutional and community capacities can benefit from continuous learning and reflection processes that allow for periodic adjustments as necessary. Finally, focused and strategic sharing of knowledge can enable stronger development responses, avoid preventable mistakes and duplication, and point to opportunities for iterative and coordinated responses to emerging challenges.

A strong project learning strategy should be focused, relevant to identified needs and opportunities, and integrated with implementation and management processes. The strategy should address the key focus areas indicated below, and include associated budget costs for the entire activity cycle.

Information Resources

Local Systems: A Framework for Supporting Sustained Development (USAID) looks at ten principles for engaging local systems, highlighting the importance of tapping into

local knowledge, embracing facilitative approaches that catalyze change, and embedding flexibility and responsiveness into how we do our work.

1. Collaborating, Learning and Adapting

- Identify and fill knowledge gaps through research, knowledge sharing, and outside technical assistance and training;
- Enable strong understanding of the local context and external changes that could affect implementation over time, as well as the needs and capacities of participants, communities and local partners;
- Ensure responsive, adaptive management and improved project implementation through application of formal learning from performance monitoring, assessments, and evaluation results, as well as informal learning from dialogue, consultation, and reflection processes;
- Through networking and collaboration, build sustained knowledge capture and sharing across activities, partners, sectors, and country contexts, and with key stakeholders from the USAID Mission, host country government, and other donor-funded activities

Information Resources

*Tools for Knowledge Sharing and Learning: A guide for development and humanitarian organizations (*Overseas Development Institute) provides detailed guidance on learning-centered approaches to strategy development, management, collaboration mechanisms, knowledge sharing, and capturing and storing knowledge.

The Art of Knowledge Exchange (World Bank) walks readers through five steps to knowledge exchanges that are relevant to development goals, and responsive to institutional capacity and knowledge gaps.

Designing Participatory Meeting and Brownbags: A TOPS quick guide to linking development practitioners (TOPS) provides suggestions for learning and knowledge sharing sessions that encourage peer-to-peer exchange and are conducive to adoption and action.

The *Participatory Methods* website (Institute of Development Studies) features tips, tools, and academic papers focused on participatory and facilitative approaches to program-level research, analysis, planning, monitoring, evaluation and learning.

Multi-Stakeholder Management: Tools for Stakeholder Analysis: 10 building blocks for designing participatory systems of cooperation (GIZ) looks at stakeholder engagement

and provides a process for analyzing who needs to be involved in the design of a change process, as well as anticipating who will be affected by the change and how.

Guide to Constructing Effective Partnerships (Enhancing Learning and Research for Humanitarian Assistance) looks at the challenges involved in research partnerships between academic institutions and humanitarian organizations and factors for success in collaboration.

The Partnership Toolbox (WWF/UK) walks readers through a structured approach to partnership enabling the identification of the type of partnership needed through to development of the partnership over time, evaluating and learning together in order for the partnership to deliver shared objectives.

2. Capacity Strengthening

- Strengthen and refine capacity strengthening efforts aimed at both community capacities and local partners.

Information Resources

Country Systems Strengthening: Beyond Human and Organization Capacity Development: Background paper for the USAID Experience Summit on Strengthening Country Systems (USAID) explores the role of human and institutional capacity strengthening in the context of country systems strengthening, and argues that all capacity strengthening efforts should be systems focused.

Human and Institutional Capacity Development Handbook: A USAID Model for Sustainable Performance Improvement (USAID) sees local institutions as adaptive systems challenged to respond to the changing environments in which they operate, and presents structured and integrated processes to identify and address root causes of performance gaps.

Going the Distance: Step by Step Strategies to Foster NGO Sustainability (FHI 360) is a training guide for building a strong foundation for organizational sustainability, including strengthening partner organizations' ability to seek information, to form networks and partnerships, to communicate directly, and to align strengths with community needs and available funding.

The Organization Capacity Assessment Tool (JSI) was developed to assist partner organizations identify their status on seven management elements: governance,

administration, human resource management, financial management, organizational management, program management and project performance management.

Building Trust in Diverse Teams (Emergency Capacity Building Project) is a toolkit providing exercises for any team member, manager, or external facilitator to use to develop greater levels of trust as new teams or partnerships are formed or later in a team or partnership's existence.

C. Social Accountability and Governance

Overview:

Equitable access to quality, responsive services is a key consideration in meeting the needs of the most vulnerable; deliberate work on inclusion is important. Social accountability approaches and tools can help ensure that service delivery – whether through host country governments, the private sector, civil society or implementing organizations themselves - is demand-driven, effective, and meets the needs of the community, including its more marginalized members.

Social accountability approaches and tools foster three key principles:

Transparency: This ensures the availability of information so that community members can understand how and why decisions about service provision were made, how to access services, and how to provide feedback on the quality.

Accountability: This ensures that service providers are incentivized to provide and also held responsible for the availability, quality and responsiveness of services, along with equity of access.

Participation: This ensures that community members, including the most marginalized, have the opportunity to participate in decision-making and feedback on community needs, desired services, and any issues regarding quality or access.

Through improved linkages, interactions and partnership among community members and with service providers, social accountability approaches have the potential to increase the effectiveness of interventions, improve targeting of program participants, increase social capital in communities, and, ultimately, improve sustainability of efforts over the long-term.

Information Resources:

The Social Accountability e-Guide (World Bank) offers a step-by-step approach to integrating social accountability into projects. The site includes a comprehensive library of tools and approaches organized by the three social accountability principles: transparency, accountability and participation.

Fostering Social Accountability: From principles to practice (UNDP) provides an overview of social accountability principles and offers guidance on how to incorporate its practice into programming.

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Mapping Context for Social Accountability (World Bank) defines six contextual factors influencing social accountability and walks users through two tools to better understand and practically address the barriers and enablers to successful social accountability interventions.

The Good Enough Guide to Impact Measurement and Accountability in Emergencies (Emergency Capacity Building Project). Though written for emergency program contexts, the guide provides useful tips and tools for ensuring that project activities are accountable to and involve the populations they serve.

D. Sustainability

Overview

FFP seeks to maximize long-term impact through establishing effective sustainability and exit strategies. These strategies build capacity of host country entities, whether private or public, to achieve long-term success and stability and to serve their clients without interruption and without reducing the quality of services after external assistance ends. FFP holds that sustained resources; capacity (both technical and managerial); motivation; and linkages among program entities are crucial to long-term sustainability. Furthermore, FFP seeks to implement effective models, build local capacity, and create an enabling environment adapted to the specific contexts of the countries where FFP works. FFP seeks to create, wherever possible, self-financing and self-transferring models that will continue to spread under their own momentum both during and after the project. FFP expects that these models will be adopted and adapted by a significant proportion of the population helping to improve both sustainability and impact of the interventions.

1. Sustained Resources

- Self-Financing Mechanisms
- Transferring Functions to Local/National Governments
- Fee for Service Models
- Exit Strategies

Information Resources

FFP Program Exit Strategies: Conclusions and Recommendations (Tufts University) presents the initial conclusions of the research. The conclusions include impact at end

of project does not necessarily imply sustained long term impact; provision of free resources negatively impacts sustainability; and inadequate design and implementation of sustainability strategies and exit processes leads to post award reduction in impacts.

What We Know About Exit Strategies: Practical Guidance for Developing Exit Strategies in the Field (C-SAFE) provides step-by-step guidance on how to develop, implement, and monitor sound exit strategies for FFP developmental relief projects and to improve understanding to enable development of appropriate and flexible exit strategies.

Formal and Informal Fees for Maternal Health Care Services in Five Countries (Policy Project) examines fee for service models for maternal health care services in five countries. It looks at actual costs to consumers for antenatal and delivery care; current fee and waiver mechanisms; the degree to which these mechanisms function; the degree to which informal costs to consumers constitute a barrier to service; and reviews current policies and practices regarding the setting of fees and the collection, retention, and use of revenue.

Taking the Long View: A Practical Guide to Sustainability Planning and Measurement in Community-Oriented Health Programming (ICF Macro) is a manual designed to assist project managers, planners and evaluators in their efforts to improve their approaches to planning for and assessing sustainability in health projects implemented in developing countries. It is intended as a practical guide for health project managers, especially those implementing community health projects in resource-constrained settings. It focuses on a specific framework, the Sustainability Framework (SF), developed through the U.S. Agency for International Development's (USAID) Child Survival and Health Grants Program (CSHGP).

2. Capacity

- Training of Associations/Savings Groups, etc.
- Business Training
- Household and Community Resilience
- Strengthening of Microfinance Institutions
- Strengthening Local/National Government Institutions

Information Resources

Understanding Peri-urban Sustainability: The role of the resilience approach (STEPS Centre) focuses on how resilience approaches can be used as a practical tool in helping to understand complex dynamic socio-ecological systems and, in particular, how resilience approaches can enhance environmental integrity and social justice.

From Extreme Poverty to Sustainable Livelihoods: A Technical Guide to the Graduation Approach (CGAP) provides a "how-to" roadmap for practitioners wishing to implement programs based on the Graduation Approach, an integrated, five-step methodology aimed at transitioning extremely poor populations into sustainable livelihoods.

Sustaining linkages to high value markets through collective action in Uganda (Food Policy Journal article) outlines how collective action combined with strong leadership

and an iterative market-led learning process enabled a smallholder farmers' association to meet the considerable challenges of achieving the stringent quality parameters of a modern food outlet in Uganda.

3. Motivation

- Economic Incentives
- Environment of Investment not Entitlement
- Facilitating Private Sector Involvement

Information Resources

Guidelines for Successful and Sustainable Involvement of ISMEs in Southern Africa Agribusinesses (USAID Consultant Report) identifies documents and reports that can provide insight or specific examples of successful approaches for stimulating and supporting indigenous small and medium enterprise development in agribusiness, emphasizing financial and technical services.

Building an Enabling Environment for Agricultural Technology Commercialization: Bridging the Gap between Innovation and Uptake (Enabling Agricultural Trade) explores the enabling environment for the distribution and utilization of agricultural technologies supported by the public sector in developing countries. It presents guidelines for improving private-sector-led commercialization activities based on existing literature, general consensus, and best practices from around the world.

Field Review of USAID's Approaches to WASH in Madagascar: Success Factors and Lessons Learned (WASHplus) reviews USAID's WASH interventions in Madagascar. It focuses on subsidy free infrastructure development and maintenance.

4. Linkages

- Private Sector Used for Service and/or Input Delivery
- Long Term Partnerships Formed with other Development Actors
- Facilitating Market Linkages

Information Resources

Partners in Technology Generation and Transfer: Linkages between Research and Farmers' Organizations in Three Selected African Countries (ISNAR) examines experiences in Burkina Faso, Ghana and Kenya of linking local research institutions to famers groups. The study found that the farmers' organizations have poor or no linkages to research institutions and concludes that better linkages are needed and can be accomplished by 1) balancing the decision-making power between research and farmers' organizations with regard to setting and implementing the research agenda; 2) establishing more effective linkage mechanisms, some of them being initiated by farmers' organizations; and 3) jointly defining sound linkage policies and strategies.

Facilitating Systemic Change in Value Chains: Lessons Learned for Strengthening Country Systems (KDMD) reviews USAID experience with inclusive value chain

development and discusses lessons learned about facilitating systemic change in markets. The review highlights the importance of the facilitation approach and concludes that the facilitation approach is preferred to direct delivery of program services, because it leads to more sustainable solutions that will continue after the project is over.