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Bureau for Humanitarian Assistance Technical Reference Chapters

Resilience Food Security Activities (RFSA)
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I. INTRODUCTION

This document is a reference to technical information and emerging best practices relevant to many of the sectors, cross-cutting technical areas, and activities USAID's Bureau for Humanitarian Assistance (USAID/BHA) addresses with its non-emergency resources and Global Food Security Strategy (GFSS) Community Development Funds. This is not a guidance document or prescriptive how-to manual, rather it is a resource document to help applicants find and incorporate the best and most promising practices into context-specific and participatory program design. This document should not be used by applicants to decide which technical sectors will be included in a resilience food security activity (RFSA).

USAID/BHA provides this document for information purposes only, as an accessible compilation of some currently known best practices, research, and technical resources. This guide is not an exhaustive list of the range of possible technically sound interventions. Organizations considering applying for USAID/BHA funding are not required to propose interventions described in this document. The full technical requirements and merit review criteria for every USAID/BHA funding opportunity are described in the applicable solicitation.

USAID/BHA takes a holistic look at humanitarian aid, from readiness and response to relief and recovery, providing assistance before, during, and after a crisis. This includes non-emergency programming that is foundational to linking humanitarian assistance to long-term development.¹ USAID/BHA provides foundations for transformative change and self-reliance through its support of early recovery, risk reduction, and resilience (ER4) programs. USAID/BHA's ER4 efforts aim to improve the well-being of at-risk people by strengthening their capacities to manage risk; anticipate, withstand, recover from, and adapt to shocks and stresses; and support positive, transformative change. USAID/BHA is committed to integrating ER4 programming into its responses wherever and whenever appropriate.^{2,3}

USAID/BHA is committed to enhancing the resilience of at-risk populations around the world to help save lives, strengthen livelihoods, and build capacities to better manage shocks and stresses. USAID/BHA strengthens the capacities of vulnerable populations to combat malnutrition, reduce morbidity and mortality, promote economic growth, minimize disaster risks, improve food security, and adapt to climate change. Understanding that appreciation for sociological components is key to creating meaningful and sustainable change, including the constructs of gender, age, and other factors that contribute to identity within a community, as well as behaviors at the individual and household level, USAID/BHA uses a multi-sector, integrated activity design that sustainably improves outcomes and strengthens the adaptive, absorptive, and transformative capacities of at-risk communities.

This guide provides a broad toolkit of available resources to help applicants develop and operationalize a context-specific vision for improved and sustained food security for the most at-risk populations. In the interest of impartiality, no documents authored by a single USAID/BHA IP have been included in this guide. However, readers are strongly encouraged to access the [online technical resource library](#) of the Food Security and Nutrition Network, managed by the USAID/BHA-funded IDEAL program.

¹ <https://www.usaid.gov/who-we-are/organization/bureaus/bureau-humanitarian-assistance>

² <https://www.usaid.gov/humanitarian-assistance/documents/er4-framework>

³ <https://www.usaid.gov/humanitarian-assistance/what-we-do/early-recovery-risk-reduction-resilience>

We welcome comments on this guide, as well as suggestions for additional technical reference materials or topic areas that should be included. Please feel free to send any feedback to AskBHA@usaid.gov.

GRADUATION APPROACH

The Graduation Approach is an innovative, holistic, and proven approach to lift extremely poor households out of poverty and reduce inequality. The approach consists of a comprehensive set of sequenced interventions that are delivered to each participating household: a productive asset transfer, temporary cash or food transfers to support consumption while the extremely poor households invest in an enterprise, technical training, coaching, and support to build life skills, increase business literacy, enhance access to savings, and promote nutrition and health behavior change. Each of these components is adapted for the specific context in which a Graduation program is being delivered.

The Graduation Approach targets households living in extreme poverty. These households are often marginalized within their communities, lack stable sources of income, and cannot afford the time to participate in government- or NGO-implemented social assistance programs without consumption support.

The Graduation Approach was pioneered by BRAC in Bangladesh in 2002, and since then has reached an estimated 14 million people in 50 countries. Evidence gathered through randomized control trials across the world shows that Graduation programs consistently provide extremely poor households with a pathway out of poverty by helping them engage in a productive and resilient livelihood. This cost-effective program gradually builds household capacity and empowers families to become involved in the local economy and community in productive and positive ways.

A six-country study that collected data from 21,000 people in Ethiopia, Ghana, Honduras, India, Pakistan, and Peru over three years found that Graduation programs significantly improved livelihoods, income, and health among the extremely poor. The study also reveals that the impacts of the program on consumption, household assets, and food security were sustained for at least 36 months after the productive asset transfer (at least 12 months after all program support had ended). Implementers have also begun to test lower-cost or lower-complexity versions of the Graduation Approach (for example, shifting coaching sessions to take place in groups, rather than during one-on-one household visits) that allow for increased program scale and uptake by governments in low- and middle-income countries. Versions of the Graduation Approach have been scaled up by governments in a number of countries including India, Rwanda, and Zambia.

The graduation approach typically includes the following five core elements:

1. **Consumption support to ensure basic needs are met while starting or expanding livelihoods.** This is typically provided in the form of cash assistance, delivered in installments that generally last 10–24 months, and designed to help participants stabilize food consumption levels until they start earning income from the livelihoods facilitated through other program components. In most graduation programs, the total amount transferred tends to fall within the range of \$10 to \$30 per month, with variations based on local purchasing power, household size, availability of other sources of income, and presence of other high-frequency cash transfer programs in which households already participate. In many contexts, participants are targeted based on pre-existing targeting of

a cash transfer program (such as via a government social protection program); in such cases, this component is often omitted under the assumption that the existing program is addressing the short-run food insecurity sufficiently such that the tradeoff is better to lower the cost per household and include more people in the program rather than supplement the cash transfer with a higher amount.

2. **Provision of a productive asset, typically as a cash grant or mobile money transfer** (but in some circumstances in kind, if local market conditions render it likely to be more effective). Participants receive a lump-sum cash transfer designed to “jump start” one or more income-generating activities in order to start or expand a viable livelihood. In most cases, the asset is provided in the form of a lump-sum cash transfer, but may also be delivered in kind. The value of the asset typically ranges from \$200 to \$400 per household, again varying based on local purchasing power and the target livelihoods.
3. **Training on business-related and other skills (e.g., soft skills) to increase economic security.** Participants receive training on the skills (both technical and interpersonal) required to start or expand a viable livelihood. Most trainings include a total of 20–40 hours of content, which can be delivered in a concentrated period of 4–5 days, or through shorter weekly sessions delivered over the course of 10–16 weeks. Training is typically delivered immediately before, or shortly after, the transfer of the productive asset, so it will be fresh in participants’ minds.
4. **Ongoing coaching and mentoring.** Graduation programs provide ongoing support designed to help participants overcome emotional and psychosocial hurdles and knowledge gaps that might prevent them from running a successful livelihood. In addition to helping participants with business planning, money management, and social support, coaches also provide referrals to health and other services. Many graduation programs include weekly household visits from implementing partner staff, delivered for 12–24 months, though some programs provide less frequent (e.g., every six weeks) visits, provide visits for a shorter time (e.g., 6–9 months), or deliver coaching to groups instead of one-on-one. In addition, some programs identify local community volunteers who can fulfill the coaching function, rather than using paid program staff.
5. **Improved access to savings or other financial services.** Once their food consumption stabilizes, graduation programs encourage participants to start saving, either by facilitating the creation of informal savings groups (including self-help groups, village savings and loan associations, etc.) or by linking participants to formal financial services providers.

The specific design of each component has to be contextualized to the particular area where the program will be designed and implemented.

RESOURCES

- [The Ultra Poor Graduation Approach](#) (IPA): Evidence from six countries found that a big-push program, which aimed to address the multifaceted challenges of poverty simultaneously, improved livelihoods, income, and health among the ultra poor. The proven success of the approach has spurred governments and development agencies to expand the Graduation Approach to millions of people. The program is now being scaled up to reach over 3.1 million households worldwide.

- [Building Stable Livelihoods for Low-Income Households](#) (J-PAL): A review of twenty randomized evaluations found that most big-push transfers with multifaceted supports, like Graduation, provided a necessary foundation for households to accumulate assets, shift into more stable self-employment, take on better occupations, increase their standard of living, and grow out of a state of poverty. In most cases, these households were better positioned to take advantage of higher-return activities, including migrating to urban centers farther away for longer periods. Moreover, there were substantial welfare gains across studies two to four years after the initial asset transfer, and these gains have been shown to persist eleven years later.
- [A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence From Six Countries](#) (Banerjee et al.): The six-country study shows that the Graduation program was able to substantially increase consumption of the very poor by the end of the program, with improvements maintained one year later. The estimated benefits are higher than the costs in five out of six sites. The study concluded that a multifaceted approach to increasing income and well-being for the ultra poor is sustainable and cost effective.
- [Endline Report of the Resilience Food Security Activity Graduating to Resilience in Uganda, Cohort 1](#) (IPA): While the Graduation approach has been successful, it is not inexpensive. Less is known about the relative costs and benefits of the individual standard components of graduation, which typically include cash grants, asset transfers, skills training, individual coaching, access to savings groups, and basic healthcare. This activity aims to identify cost-effective strategies for providing a graduation program in both a refugee settlement and the communities surrounding it.
- [Considerations for Integrating the Graduation Approach within Resilience Food Security Activities](#) (IDEAL): This report provides a more comprehensive study of prevailing practices in integrating graduation programming across three RFSAs: Graduating to Resilience (AVSI/Uganda), Nobo Jatra (World Vision/Bangladesh), and Nuyok (Catholic Relief Services/Uganda). The report begins with a summary of the Graduation Approach, followed by a description and overview of the three RFSAs and their application of the Graduation Approach in different contexts. Next, it presents key findings related to the adaptation of the Graduation Approach for each graduation component, the integration of graduation programming into these RFSAs, lessons on graduation pathways, and the evidence base for applying graduation in RFSAs. It additionally presents recommendations for RFSAs practitioners and USAID/BHA to consider in the design and application of the Graduation Approach in future RFSAs.
- [Graduation Approach Synthesis and Four Case Studies](#) (Ford Foundation): The Ford Foundation partnered with the Consultative Group to Assist the Poor (CGAP), a global partnership of development organizations housed at the World Bank, to adapt and test the Graduation Approach through ten pilot projects in eight countries in Africa, Asia, and Latin America between 2006 and 2014. CGAP, Ford, and their partners then explored how best to support large-scale adaptations and implementations of the Graduation Approach, especially by governments. The results of four of those adaptations are the subject of this series of case studies.
- [Long-Term Effects of the Targeting the Ultra Poor Program in West Bengal, India](#) (Banerjee et al.): This research studied the long-term effects of a big-push program providing a large asset transfer to the poorest Indian households. In a randomized controlled trial that follows these households over ten years, the researchers find positive effects on consumption, food security, income, and health. These effects grow for the first seven years following the transfer and persist until year ten. One main channel for persistence is that treated households take better advantage of opportunities to diversify into more lucrative wage employment, especially through migration.

- [The Fading Treatment Effects of a Multi-Faceted Asset-Transfer Program in Ethiopia](#) (Barker et al.): The researchers studied the long-run effects of a big-push Graduation program in Ethiopia in which very poor households received a one-time transfer of productive assets (mainly livestock), technical training, and access to savings accounts. After seven years, treatment effects on wealth and consumption remained economically meaningful but dissipated relative to the two- and three-year results. Treatment effects on other outcomes attenuated further. Based on absolute wellbeing (e.g., food security) not dropping, researchers argued that the treatment effect dissipation is driven primarily by improved living standards for control households, rather than losses of the previously accrued benefits for the treatment households.
- [Building Resilient Livelihoods: The Enduring Impacts of Afghanistan's Targeting the Ultra-Poor Program](#) (World Bank): The research finds that many of the positive short-term impacts are sustained five years after the asset transfer. In the context of the deteriorating economic conditions, the research find that, while the targeted ultra poor program recipients also experience reductions in consumption, and revenues and income, many of the impacts first seen in 2018, relative to the control group, are sustained in 2021. The program participant households have 16 percent higher consumption levels and 32 percent higher income and revenues.
- [PRO-WASH](#): A USAID/BHA-funded initiative aiming to provide support to implementing partners (IPs) to strengthen the quality of water, sanitation, and hygiene (WASH) and water security interventions through capacity strengthening, knowledge sharing, and applied WASH research opportunities. The website has links to many resources for WASH and water resource management (WRM).
- [SCALE](#): An initiative funded by USAID/BHA to enhance the impact, sustainability, and scalability of USAID/BHA-funded agriculture, natural resource management, and alternative livelihood activities in emergency and non-emergency contexts.

II. PROGRAM DESIGN ELEMENTS

MONITORING & EVALUATION

For monitoring and evaluation (M&E) best practices please consult the USAID/BHA [Guidance for Monitoring, Evaluation, and Reporting](#).

GENDER, AGE, GENDER-BASED VIOLENCE, AND INCLUSION

INCLUSION AND INTERSECTIONALITY OVERVIEW

Programming approaches that are inclusive and address the needs and vulnerabilities of historically marginalized groups are fundamental to catalyzing transformative change and building resilience among at-risk or crisis-affected communities. Integrating contextual and social identity-related factors—such as age, disability, ethnicity, religion, race, and sexual orientation, gender identity, gender expression, and sex characteristics (SOGIESC)—throughout food security and nutrition programming helps to provide equitable access, strengthen equal participation, and ensure that the interventions do not exacerbate existing inequalities.

USAID/BHA encourages approaches that promote inclusive programming by considering the lived experiences, needs, and vulnerabilities of these groups from an intersectional lens. Equitable inclusion of key groups that may face intersectional and compounding vulnerabilities, such as those related to age, disability, ethnicity, religion, and SOGIESC are key considerations

in USAID/BHA's inclusion work. USAID/BHA supports approaches to strengthen equal participation and feedback and ensure interventions do not exacerbate existing inequalities.

The following sections provide technical references for centering broader inclusion efforts, gender equality, youth, and gender-based violence (GBV) in food security programming.

GENDER EQUALITY OVERVIEW

Discriminatory gender norms, roles, and gender-related risks and restrictions significantly affect household food and nutrition security. Intra-household gender and age dynamics alongside resulting power differentials among individuals and communities may further impede access to resources and food security when combined with other intersectional vulnerabilities such as class, disability, ethnicity, race, and SOGIESC. Understanding these dynamics and translating that understanding into improved and inclusive programming is therefore imperative to promote and sustain food and nutrition security.

GENDER ANALYSIS AND INTEGRATION

A gender analysis is a widely exercised and effective socio-analytical tool used for identifying gender and intersectional gaps and differences across sectors. Gender analyses may utilize a variety of research methodologies, as feasible and relevant to the programming context. USAID/BHA mandates the use of gender analysis in its RFSA programming and provides detailed guidance for partners to utilize this approach in their program design, implementation, monitoring, and reporting. USAID/BHA promotes [USAID's 2023 Gender Equality and Women's Empowerment Policy](#), which highlights USAID's commitment to advancing gender equality and women's empowerment and the importance of gender analysis.

A RFSA gender analysis allows IPs to be intentional in addressing gender inequality and related barriers in achieving programmatic outcomes. Findings from gender analyses are particularly useful not only to ensure that gender-specific needs are addressed, but also to recognize the potential impact—positive or negative—of interventions on girls, boys, women, and men. This is an essential practice to outline ways to avoid or mitigate any negative consequences. Resilience programming has benefitted from incorporating interventions to address gender barriers that impede food security outcomes and garner equitable participation from women and men of different ages and social groups. It elevates historically marginalized groups to become partners and agents of change, ensuring the sustainability of interventions.

YOUTH OVERVIEW

USAID considers young people as positive change agents who are catalysts in bringing about transformational change, meeting development and humanitarian outcomes, and ensuring the sustainability of interventions. USAID/BHA promotes inclusive programming approaches and [Positive Youth Development \(PYD\) strategies](#) that view young people as key partners in all assistance efforts, from nutritional programming to strengthening agricultural markets and building food-secure communities. For programming purposes, USAID/BHA defines youth as persons 10–29 years of age.

Recognizing the commitment, creativity, energy, and novel perspectives that youth bring is vital for achieving food and nutrition security outcomes and building resilient communities. While RFSA may particularly focus on young women, effective programming empowers young women without disenfranchising young men. To this end, male engagement is key to success

within the RFSA context. It is also imperative to bolster intergenerational dialogue, improve youth standing, and strengthen relations between youth and their families and communities.

USAID/BHA considers the PYD approach and the use of Participatory Learning and Action tools to guide youth participation in program activities as best practices. It encourages the inclusion of activities that strengthen social ties among youth, their families, and communities and engage youth in community problem solving, leadership opportunities, and community dialogue.

GENDER-BASED VIOLENCE AND SEXUAL EXPLOITATION AND ABUSE

GBV is deeply rooted in gender inequality and discriminatory gender norms. In contexts of acute or protracted crises, the risk of GBV and other protection vulnerabilities is heightened; therefore, it is imperative that resilience programming proactively addresses and mitigates these risks.

Best practices include analyzing the drivers of these risks and identifying how interventions could lead to or exacerbate protection risks—such as GBV and sexual exploitation and abuse (SEA)—or compromise access to resources or assistance. Measures to mitigate these risks must be mapped, and protocol referral mechanisms should be put in place to respond to instances of GBV, SEA, and other protection risks. These practices should also be tracked over time to ensure continuity in accessible, effective, and safe referral services and detect any unintended consequences related to gender inequality and GBV.

USAID/BHA is committed to preventing and responding to GBV across all its programming. While direct provision of services to survivors of GBV is usually outside the purview of RFSA programming, USAID/BHA encourages IPs to provide information about GBV services in communities targeted by USAID/BHA programs. If GBV-related services or interventions are included in RFSA programming, partners may consider hiring qualified staff who are trained in responding to GBV and are deeply familiar with the local culture and availability of local services and referral pathways.

RESOURCES

GENDER INCLUSION, EMPOWERMENT, ENGAGING MEN AND BOYS, AND PREVENTING GBV

- [Ending Child Marriage & Meeting the Needs of Married Children: The USAID Vision For Action](#) (USAID): Outlines USAID’s efforts to prevent and respond to early marriage in regions, countries, and communities where these efforts are most needed.
- [Working with Men and Boys to End Violence Against Women and Girls](#) (USAID): Reviews published and grey literature on male engagement strategies for ending violence against women and girls across five sectors.
- [Scaling Up Interventions to Prevent and Respond to GBV](#) (USAID): Identifies GBV interventions that are scalable and provides guidance for designing GBV interventions that can maximize impact.

GENDER AND AGE ISSUES IN FOOD SECURITY PROGRAMMING

- [Gender in Agriculture Sourcebook](#) (World Bank): Provides an in-depth analysis of gender integration into key technical areas.
- [The State of Food and Agriculture](#) (FAO): A guide published annually on the role of women in agriculture.
- [Promoting Gender Equitable Opportunities in Agricultural Value Chains: A Handbook](#) (USAID): A USAID publication focused on women in agricultural value chains.

- [A Review of Empirical Evidence on Gender Differences in Non-Land Agricultural Inputs, Technology, and Services in Developing Countries](#) (IFPRI): A report that reviews existing microeconomic empirical literature on gender differences in access, adoption, and use of non-land agricultural inputs in developing countries.
- [Bringing Agriculture and Nutrition Together Using a Gender Lens](#) (Verhart et al.): Focuses on the linkages between food and nutrition security using a gender lens.
- [Gender and Conflict Analysis](#) (UN Women): Looks at gender relations and gender inequality as triggers or dynamics of conflict.

BEST PRACTICES ON ADDRESSING GENDER OPPORTUNITIES AND CONSTRAINTS IN FOOD SECURITY PROGRAMMING

- [Focus on Families and Culture: A Guide for Conducting a Participatory Assessment on Maternal and Child Nutrition](#) (The Grandmother Project) provides information about understanding family roles and influence to develop effective, culturally-grounded community nutrition interventions.
- [Girl-Centered Program Design: A Toolkit to Develop, Strengthen, and Expand Adolescent Girls Programs](#) (Population Council): Outlines beneficiary targeting and how to conduct needs assessments and M&E.

YOUTH INTEGRATION AND POSITIVE YOUTH DEVELOPMENT

- [Positive Youth Development Framework and Features](#) (YouthPower): Provides a framework that illustrates practices and policies to improve youth assets and agency and promote enabling environments and youth community contributions.
- [Youth Inclusive Agriculture](#) (YouthPower): Provides approaches, frameworks, and tools to assist the design of agriculture programs that promote meaningful youth engagement.
- [Youth Assessments](#) (YouthPower): Assess the current landscape for youth engagement, identifying opportunities to strengthen young people's participation, partnership opportunities, and barriers to progress. The assessments raise youth voices and draw on inputs from youth focus group discussions.
- [What Works in Youth and Agriculture](#) (YouthPower): Examines the agriculture sector and presents evidence as to "what works" with youth in this space.
- [YouthPower](#): Provides 5,800 resources on positive youth development through USAID's YouthPower2 Learning & Evaluation webpage.
- [Action Recommendations for Youth Programming in Food for Peace Development Food Security Activities](#) (YouthPower): Supports USAID/BHA to better understand and improve how RFSA IPs are addressing youth.
- [YouthLead](#): A USAID-funded platform designed for young changemakers making a positive impact on their community through service, activism, advocacy, education, and entrepreneurship.
- [Youth.Gov](#): A U.S. government (USG) website providing youth tools and practices that help implementers create, maintain, and strengthen effective youth programs.
- [A Guide and Cheat Sheet for Resilience Food Security Activities: How to Engage Youth in Alternative Livelihoods](#) (SCALE): Directs implementers to relevant materials for supporting youth alternative livelihoods, such as off-farm and non-farm work, within USAID/BHA-funded food security programs.
- [Tools and Guidance on Youth Livelihoods for Food Security Programs](#) (SCALE): A webinar recording designed to accompany the above guide and cheat sheet.

- [Putting Youth in the Lead: Technical Guidance for Youth-Led Market Assessments](#) (SCALE): Focuses on understanding and strengthening economic opportunities for youth populations and was written for project staff working on USAID/BHA-funded activities.

EQUITY AND LGBTQI+

- [Equity Action Plan](#) (USAID): Details five key recommendations to advance equity with underserved communities, including racial and ethnic equity in our policies, programs, and partner base.
- [LGBTQI+ Inclusive Development Policy](#) (USAID): Outlines the principles and steps that USAID will follow, in partnership with a wide array of allies and champions, to protect human rights and empower lesbian, gay, bisexual, transgender, queer, intersex, and persons with additional marginalized sexual and gender identities (LGBTQI+) increase the capacity of LGBTQI+ civil society organizations (CSOs); and integrate and elevate attention to LGBTQI+ issues in our work to bring about transformative development results.

CLIMATE RISKS, MANAGEMENT, AND ENVIRONMENTAL SAFEGUARDS

CLIMATE RISK MANAGEMENT

The climate crisis is one of the greatest impediments to sustainable and equitable development. The effects of climate change will not be borne equally or fairly between and within countries due to intersections of uneven socioeconomic development, unsustainable land use, governance, inequity, and marginalization.⁴ Combating these climate injustices through humanitarian and development assistance requires a climate-sensitive approach that takes into account the existing and projected impacts of climate change and associated vulnerabilities and determines how an activity component may be affected.⁵

RESOURCES

- The UN's Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, [Climate Change 2022: Impacts, Adaptation and Vulnerability](#) reviews vulnerabilities, capacities, and the limits of climate change adaptation and provides multi-sector, multi-actor inclusive strategies to minimize maladaptation.

BEST PRACTICES FOR ENVIRONMENTAL SAFEGUARDING IN RFSAs Global and local environmental damage reverses humanitarian progress and reduces opportunities for individuals and communities to achieve collective self-determination and development goals.

IMPROVE EFFICIENCIES OF ACTIVITIES WITH POTENTIALLY SIGNIFICANT EFFECTS

RFSA programs often include activities that have potentially significant climate, environmental, and social impacts, deemed “high risk” under USAID’s Environmental Procedures. These activities can include the construction of water-control infrastructure, such as weirs, or activities carried out in and around wetlands or protected areas. Identifying and appropriately addressing high-risk activities early in the project life cycle is

⁴UN (2021). [Climate Justice](#) .;

Watts et al. (2021). The 2020 report of The Lancet Countdown on health and climate change: Responding to converging crises. *The Lancet*, 397 (10269)

⁵ MIT Climate Portal. (2021). [Climate Sensitivity](#).

critical to ensuring that the impacts of these activities do not delay or divert food security objectives.

MEANINGFUL ENGAGEMENT WITH A DIVERSE RANGE OF STAKEHOLDERS

USAID/BHA is committed to upholding the principles of inclusive and locally led development throughout the environmental compliance process. Local communities and Indigenous Peoples have valuable environmental knowledge that can enhance community resilience to environmental degradation stressors and climate-related shocks.

Best practices include consultations with diverse stakeholders early in the project cycle to:

- Determine baseline conditions and identify local environmental issues.
- Identify and reduce the foreseeable adverse environmental impacts of the project.
- Develop context-appropriate and innovative solutions to natural resource management.
- Develop an effective monitoring plan for measuring changes in environmental quality.

Stakeholder engagement on environmental issues is an active and inclusive process that requires dedicated resources and staffing throughout the entire project lifecycle. As the environmental impacts of humanitarian assistance can differ across populations, individuals who are marginalized or have been underrepresented in decision-making are at a greater risk of environmental hazards.

PROMOTE SAFE AND EFFECTIVE USE OF PESTICIDES

Poor pesticide practices negatively affect natural resources and human health by damaging food webs and contaminating groundwater and soils. Pesticide self-poisoning is also responsible for 20 percent of global suicides.⁶ Pesticides are commonly used in plant and animal agriculture, including pesticide-treated seeds; health, livestock, and commodity management purposes, such as phosphine fumigation. Safe and effective pesticide use—including the use of personal protective equipment (PPE), warning labels, gender-sensitive training, and application buffers for water sources—can reduce environmental and human health risks through occupational best practices, such as the use of PPE and application buffers for water sources, gender-sensitive training, and appropriate warning labels.

GREENING HUMANITARIAN SUPPLY CHAINS: WASTE MANAGEMENT AND GHGs

RFSA countries often lack sufficient infrastructure or management systems to handle the waste associated with the assistance. Solid waste accumulation adversely affects the environment (e.g., flooding due to clogged drainage) and strains underfunded and overloaded municipal systems of communities in vulnerable conditions. Addressing this “second disaster”⁷ requires approaches that reduce plastic packaging use and waste generation, integrate the development of waste management plans as work plan activities, and explore opportunities for sustainable commodity procurement.⁸

⁶ Jepson et al. (2020). Selection of pesticides to reduce human and environmental health risks: a global guideline and minimum pesticides list. *The Lancet*. [https://doi.org/10.1016/S2542-5196\(19\)30266-9](https://doi.org/10.1016/S2542-5196(19)30266-9)

⁷ Newsletter of the Joint Initiative for Sustainable Humanitarian Packaging Waste Management, February 2021.

⁸ For an overview of existing initiatives, projects, networks, and groups working on green procurement, see: <https://eecentre.org/wp-content/uploads/2022/12/Whos-Doing-What-on-Sustainable-Procurement.pdf>

Humanitarian and resilience programming can also directly contribute to climate change via greenhouse gas (GHG) emissions. GHG emissions reduction approaches should be considered in every stage of RFSA design and implementation. For example, approaches can include sourcing materials locally to avoid lengthy supply chain transport, encouraging sustainable fleet management by using the [Fleet Forum Clean Fleet Toolkit](#), choosing construction materials that are less energy intensive, and prioritizing renewable or low-carbon energy access options.

ADAPTIVELY MANAGE RFSAs THROUGHOUT THE PROJECT LIFETIME

Environmental issues should be considered at every stage of the program cycle—from design, to implementation, to close-out—and the environmental quality should be monitored during implementation. As environmental issues arise, project modifications are needed to reduce adverse impacts.

RESOURCES

- [Sectoral Environmental Guidelines](#) (USAID): Presents common potential adverse impacts of activities across various sectors and strategies on how to prevent, mitigate, and monitor these impacts. The guidelines also identify how to minimize the vulnerability of activities to climate change.
- [Environmental Compliance Factsheet: Stakeholder Engagement in the Environmental and Social Impact Assessment Process](#) (USAID): Provides guidance and best practices for incorporating stakeholder engagement into environmental procedures.
- [The Joint Initiative \(Coordination of Assessments for Environment in Humanitarian Action\)](#) (Environmental Emergencies Centre): Provides recommendations on how to minimize unsustainable packaging and mitigate the environmental risks of unmanaged waste.
- [Climate and Environment Charter for Humanitarian Organizations](#): A USG-funded effort that outlines the seven commitments needed to steer collective action from donors and humanitarian IPs in response to climate and environmental crises.

III. OVERALL PROGRAM QUALITY

MONITORING & EVALUATION PLAN

The primary purpose of an M&E plan is to document an activity's M&E processes, methods, and elements in sufficient detail to enable all partner staff, especially new staff, to continue implementation of the M&E system after the turnover of key M&E staff. An M&E plan also demonstrates to USAID/BHA that an applicant or partner not only has a rigorous system for M&E activity performance that produces accurate, meaningful, and useful data for decision-making but also incorporates beneficiary feedback throughout the activity. The USAID/BHA [Guidance for Monitoring, Evaluation, and Reporting](#) plan provides general M&E resources and best practices.

COLLABORATING, LEARNING, AND ADAPTING

In the complex, often fragile environments where USAID/BHA works, applicants need a clear understanding of dynamic local contexts, shifting stakeholder roles, perspectives, and attitudes, and the complex interactions between them to identify and respond to emerging knowledge, unintended consequences, and opportunities to leverage and link with other actors and activities. Active learning processes can promote a shared understanding of local vulnerabilities, assets, coping strategies, opportunities, and barriers to implementation that can be used within

an activity and to coordinate and complement activities implemented by other humanitarian, development, and peace actors. Continuous learning and reflection processes allow for periodic adjustments that can benefit efforts to strengthen institutional and community capacities. Finally, focused and strategic knowledge-sharing processes can strengthen program quality, avoid preventable mistakes and duplication, and uncover opportunities for iterative and coordinated adaptation to emerging challenges.

A strong collaborating, learning, and adapting (CLA) plan should be focused, relevant to identified needs and opportunities, and linked to implementation and management processes. It should directly address the key focus outlined in the solicitation and address CLA needs throughout the activity cycle. The activity budget should include all costs associated with executing the CLA plan.

RESOURCES

COORDINATION, COLLABORATION, AND CONSULTATION

- [Multi-Stakeholder Management: Tools for Stakeholder Analysis: 10 Building Blocks for Designing Participatory Systems of Cooperation](#) (GIZ): Examines stakeholder engagement and sets out a process for analyzing who should be involved in the design of a change process, who will be affected, and how.
- [Guide to Constructing Effective Partnerships](#) (Enhancing Learning and Research for Humanitarian Assistance): Examines the challenges of research partnerships between academic institutions and humanitarian organizations and identifies factors for success in collaboration.
- [The Partnership Toolbox](#) (World Wildlife Fund/UK): Sets out a structured approach to partnership, identifying the type of partnership needed and the development of partnership over time. It emphasizes evaluating and learning together to deliver on shared objectives.
- [Collective Action for Collective Impact](#) (Stanford Social Innovation Review): Explains collective impact and its ability to address social problems. It details five conditions to enable collective impact, which may be utilized to guide resilience programs.
- [Programming Considerations for HDP Coherence: A Note for USAID's Implementing Partners](#) (USAID Resilience Leadership Council): Highlights seven core principles, programming examples, and promising practices of HDP coherence that are reinforced and supported by CLA processes.

KNOWLEDGE SHARING AND ACTION PLANNING

- [The Art of Knowledge Exchange](#) (World Bank): Explores five steps to knowledge exchanges that are relevant to development goals and responsive to institutional capacity and knowledge gaps.
- [Supporting Communities of Practice: A TOPS Quick Guide to Linking Development Practitioners](#) (TOPS): Focuses on identifying appropriate formats and approaches for presentations and facilitated meetings that will promote peer-to-peer learning and effective collaboration.
- [Designing Participatory Meeting and Brownbags: A TOPS Quick Guide to Linking Development Practitioners](#) (TOPS): Suggestions for learning and knowledge-sharing sessions that encourage peer-to-peer exchange and are conducive to adoption and action.
- [Knowledge Sharing for Change: Designing and Facilitating Learning Processes with a Transformational Impact](#) (IngeniousPeoplesKnowledge): Practical advice on designing and delivering workshops, meetings, conferences, and other events that facilitate change.

ADDRESSING EVIDENCE GAPS

- [Learning \(in the\) Lab: A Utilization-Focused Learning Agenda Playbook](#) (USAID): Tools and resources to design, develop, implement, and adapt a utilization-focused learning agenda.
- [USAID/BHA Brief: Developing a Learning Agenda](#) (USAID/BHA): A broad overview of the key steps involved in developing a learning agenda and is accompanied by three worksheets that can be used as a guide for planning the development of a learning agenda.

ADAPTIVE MANAGEMENT

- [Adaptive Management: A Practical Guide to Mitigating Uncertainty and Advancing Evidence-Based Programming](#) (PACT): Explains the mindsets, behaviors, resources, and processes that underpin an effective adaptive management system, presenting an approach to managing adaptively that is rooted in complexity analysis and program theory.
- [Making Better Decisions: How to Use Evidence in a Complex World](#) (World Wildlife Fund): Explores topics such as what counts as evidence, how we make decisions (consciously or unconsciously), factors that can enable or hinder the use of evidence in decision-making, and the role of scientists and practitioners in fostering evidence-informed decision-making.
- [Cracking the Evidence Conundrum: Four Ideas to Get People to Use Evidence](#) (USAID): Summarizes the existing literature on evidence-based decision-making and identifies four insights to strengthen intentionality around the application of evidence in decision-making.
- [Introduction to Scenario Planning Course](#) (IDEAL): Foundational knowledge and practical tools for why and how to conduct scenario planning to improve the capacity of activities to perform in dynamic environments.
- [Knowing When to Adapt](#) (USAID): Utilizes a decision tree model to determine when changes to an activity may be required.

GENERAL CLA RESOURCES

- [Tools for Knowledge and Learning: A Guide for Development and Humanitarian Organizations](#) (Overseas Development Institute): Detailed, evergreen guidance on learning-centered approaches to strategy development, management, collaboration mechanisms, knowledge sharing, and capturing and storing knowledge.
- [USAID Learning Lab](#) (USAID): Generates and shares information, tools, and resources on how development practitioners can work together to integrate learning throughout the USAID Program Cycle. The tools in the [CLA Toolkit](#) are particularly relevant for developing a CLA plan and the [Introduction to CLA in the Program Cycle](#) provides a good overview of CLA and how to incorporate CLA practices.
- [A Guide to Developing a Knowledge Management Strategy for a Food Security and Nutrition Program](#) (TOPS): Guides processes linked to CLA, including reflection and learning, capturing learning, collaboration, knowledge sharing, application, adaptation, and accountability. Moreover, the guide supports the development of a CLA plan.
- [Food Security and Nutrition Network](#) (IDEAL): Contains more than 1,200 guides, tools, and training materials on topics relevant to the food security and nutrition community, including CLA resources.

FACILITATION AND EVENT PLANNING

- [Engaging Everyone with Liberating Structures Handbook](#) (Group Jazz): Notes for some Liberating Structures interaction designs, which can encourage people and organizations to create and innovate.

- [Hybrid Events: A Guidance](#) (IngeniousPeoplesKnowledge): Defines hybrid events, provides example hybrid event formats, and lists considerations to make an informed decision about whether an event will be in person, virtual, or hybrid.

LOCAL CAPACITY STRENGTHENING

Strengthening the capacity of the local systems aid actors work in is a central element of development. This can take the form of an IP's field staff capacity, the capacity of local partners, or that of local groups and institutions. Regardless of the level, a focus on capacity strengthening provides a pathway toward improved effectiveness and prepares local actors to play leadership roles in the continued achievement of development objectives after the cessation of funded activities.

RESOURCES

- [Local Systems: A Framework for Supporting Sustained Development](#) (USAID): Presents ten principles for engaging local systems, including tapping into local knowledge, embracing facilitative approaches that catalyze change, and embedding flexibility and responsiveness into assistance.
- [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): Presents structured and integrated processes to identify and address root causes of performance gaps in local institutions' ability to respond to the dynamic environments in which they operate.
- [Going the Distance: Step-by-Step Strategies to Foster NGO Sustainability](#) (FHI 360): Guides building a strong foundation for organizational sustainability, including strengthening partner organizations' ability to seek information, form networks and partnerships, communicate directly, and align strengths with community needs and available funding.
- [The Organization Capacity Assessment Tool](#) (JSI): Assists partner organizations in identifying their status on seven management elements, including administration, financial, governance, human resource, organizational, program, and project performance management.
- [Building Trust in Diverse Teams](#) (Emergency Capacity Building Project): Provides 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.

SOCIAL ACCOUNTABILITY AND LOCAL GOVERNANCE

Intentional inclusion efforts are imperative because equitable access to responsive, high-quality services is critical to meeting the needs of the most at-risk populations. Social accountability approaches and tools can help ensure that services—whether delivered through host country governments, the private sector, civil society, or implementing organizations—are demand-driven, effective, and meet community needs, including the needs of the most marginalized members. Social accountability approaches and tools foster three key principles:

- **Transparency** 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 quality.
- **Accountability** ensures that service providers are incentivized to provide services and held responsible for their availability, quality, and responsiveness, as well as for equitable access.
- **Participation** ensures that community members, including the most marginalized, have the opportunity to participate in decision-making and provide feedback on community needs, desired services, and issues regarding quality or access.

By improving linkages, interactions, and partnerships among community members and service providers, social accountability approaches can increase the effectiveness of interventions, improve targeting of program participants, increase social capital in communities, and improve the sustainability of efforts.

RESOURCES

- [Introduction to Social Accountability](#) (World Bank) Introduces participants to the concept of social accountability and provides the skills necessary to design effective, context-specific initiatives at the local level.
- [Fostering Social Accountability: From Principles to Practice](#) (UNDP) provides an overview of social accountability principles and offers guidance on incorporating the practice into programming.
- [Mapping Context for Social Accountability](#) (World Bank) defines six contextual factors—civil society, political society, inter-elite relations, state-society relations, intra-society relations, and global dimensions—influencing social accountability and highlights two tools to better understand and practically address the factors that bar or enable social accountability interventions.
- One of the best ways to understand and implement social accountability at the local level is through the use of case studies. [Social Accountability in Ethiopia](#) (ESAP) provides clear operational examples of how services across various sectors were improved, while [The Role of Social Accountability in Improving Health Outcomes](#) (Core Group) shows various models used by organizations in the health sector.
- Additional resources and opportunities to connect with other practitioners are available at GPSA.org and FSNNetwork.org.

CONFLICT SENSITIVITY IN FOOD PROGRAMMING

Fragility and conflict have destructive impacts on food security, threaten lives and livelihoods, and reduce resilience, leaving populations vulnerable to shocks and stressors. Providing programming resources to communities or groups can significantly improve conditions but these resources also have the potential to exacerbate conflict or tensions in the fragile environments where USAID/BHA works. USAID/BHA is committed to using conflict-sensitive approaches to reduce the risk of unintended negative consequences while strengthening social cohesion, reducing divisions, and enhancing the positive impact of operations.

This requires USAID/BHA and its IPs to continuously take into account:

- The conflict dynamics in the operating context, particularly concerning intergroup relations and grievances; access and use of land and other resources; and sources of social cohesion.
- The potential and observed interactions between activity interventions and local conflict dynamics.
- Implementation adjustments to minimize negative impacts and maximize positive impacts on conflict dynamics, including strengthening dispute resolution capacity, equitable access, and strengthened group dynamics.

RESOURCES

- [Conflict Sensitivity and Food Security Programming](#) (USAID): Outlines key considerations for activities in fragile, conflict, and post-conflict environments, including practices to ensure food security activities do not exacerbate underlying grievances and instead support and strengthen existing resilience capacities.
- [A Note on Conflict Sensitivity From USAID's Center for Conflict and Violence Prevention](#) (CVP): Provides an overview of conflict sensitivity, discusses the applicability of conflict sensitivity in every sector, and compares examples of traditional- and conflict-sensitive approaches. Additionally, this guide offers practical advice and tools for development and humanitarian practitioners to undertake conflict analysis and use the findings to ensure programs are designed and implemented in the most conflict-sensitive manner possible.
- [Programming Considerations for HDP Coherence: A Note for USAID's Implementing Partners](#) (USAID Resilience Leadership Council): Highlights one of seven core principles focused on conflict integration and provides programming examples and promising practices.
- [Professional Standards for Protection Work](#) (ICRC): Spotlights a set of minimum standards for protection work, below which humanitarian and human rights organizations are advised not to implement protection activities. In armed conflict and other situations of violence, these standards can serve as an overarching umbrella for other existing sets of standards developed by humanitarian and human rights organizations for their working procedures or in relation to more specific issues.
- [Core Humanitarian Standards on Quality and Accountability](#) (CHS Alliance): Outlines nine commitments that organizations and individuals involved in humanitarian response can use to improve the quality and effectiveness of the assistance they provide utilizing conflict sensitivity approaches, facilitating greater accountability to communities and people affected by crises.
- [Do No Harm Framework](#) (CLP): Offers a practical tool for mapping the interactions of assistance and conflict and can be used to plan, monitor, and evaluate both humanitarian and development assistance programs.
- [From Principle to Practice: A User's Guide to Do No Harm](#) (Principle to Practice): Explains how to put the principle of "Do No Harm" into practice based on lessons learned from complex humanitarian environments.
- [How-To Guide to Conflict Sensitivity](#) (Conflict Sensitivity Consortium): Provides practical advice aimed at improving conflict sensitivity in the development, humanitarian aid, and peacebuilding field.
- [Gender & Conflict Analysis Toolkit for Peacebuilders](#) (Conciliation Resources): Provides practical guidance to conflict sensitivity practitioners on the use of gender and conflict analysis to increase the inclusivity and effectiveness of peacebuilding interventions.

CLIMATE ADAPTATION

Climate change is a global crisis. As temperatures and sea levels rise and weather and climate patterns change, people around the world increasingly face shocks such as heat waves, droughts, floods, cyclones, and wildfires. Climate change increases water and food insecurity, conflict, displacement, and the need for humanitarian assistance. Extreme weather events and slow-onset climate impacts pose new risks; expose individuals and communities; increase vulnerability; aggravate existing social, economic, and political challenges and inequities; and degrade ecosystems and natural resources. Climate change is occurring concurrently with other global crises, including the COVID-19 pandemic, worsening food and water insecurity, accelerated loss of biodiversity, and increasing violence and conflict. These compounding crises make addressing climate change more difficult, as they amplify negative impacts and impede access to places and people facing multiple stressors. Additionally, these challenges result in impacts that vary as a function of differing capacities, power dynamics, and resources available to address them, requiring the development of local, contextualized responses that are informed by diverse voices and directly address the root causes of vulnerabilities. Indigenous Peoples, local communities, women, youth, persons with disabilities, and other marginalized and/or underrepresented groups are key stakeholders and agents of change in addressing climate change. A successful approach to climate programming recognizes that their leadership, knowledge, and skills are vital to addressing the climate crisis.

Climate change adaptation aims to strengthen the resilience of natural or human systems (e.g., people, institutions, places, and livelihoods) to both the realized and impending impacts of climate change, including through the improved use of information, planning, and action. USAID/BHA encourages partners to incorporate climate adaptation across proposed interventions that will help people, communities, and countries anticipate, prepare for, and adapt to current and future climate impacts. This work will strengthen adaptive capacity, increase resilience, reduce vulnerability, and harness the robust evidence that adaptation can reduce food and water insecurity and safeguard ecosystem services and livelihoods. Sustainable and equitable climate actions should be locally led, owned, and implemented, and be tailored and context appropriate. A thorough understanding of evidence-based interventions and strategies that have been tried within a target area, including successes and maladaptations, is necessary to ensure adoption and sustainability.

RESOURCES

- [ClimateLinks Adaptation](#) (USAID): Will provide additional implementation resources, how-to notes, and technical guidance in the coming months.
- [Climate Change 2022: Impacts, Adaptation and Vulnerability](#) (IPCC): Assesses the impacts of climate change, looking at ecosystems, biodiversity, and human communities at global and regional levels and reviews vulnerabilities and the capacities and limits of the natural world and human societies to adapt to climate change. The report was co-authored by 270 researchers from 67 countries.
- [Maladaptation to Climate Change: Avoiding Pitfalls on the Evolvability Pathway](#) (UNEP): Defines maladaptation, identifies conditions under which maladaptations can emerge, provides examples of maladaptations across various sectors, and presents recommendations for identifying and avoiding maladaptive climate actions.
- [Principles for Locally-Led Adaptation](#) (World Resource Institute): Guides the adaptation community toward programs, funding, and practices that are increasingly owned by local partners.
- [Best practices and available tools for the use of indigenous and traditional knowledge and practices for adaptation, and the application of gender-sensitive approaches and tools for](#)

[understanding and assessing impacts, vulnerability and adaptation to climate change](#), the [Local Communities and Indigenous Peoples Platform](#) (UN Framework Convention on Climate Change), and the [Issues Paper](#) (International Institute for Environment and Development): Provide information on how to better incorporate indigenous knowledge in climate change-focused programming.

- [Scaling Local And Community-Based Adaptation](#) (Global Commission on Adaptation): Makes a case for local actions and community-based adaptation by showing what adaptation success looks like at the local and community level.
- [Adapt Now: A Global Call for Leadership on Climate Resilience](#) (Global Commission on Adaptation): Provides an overview of climate adaptation, providing specific insights and recommendations in key sectors, including food security, the natural environment, water, cities and urban areas, infrastructure, disaster risk management, and finance.
- [A Guiding Toolkit for Increasing Climate Change Resilience](#) (IUCN): Provides guidance and recommendations on developing climate change resilient strategies and plans, as well as delineating and sharing participatory methodologies and approaches tested by project partners to integrate climate change risks into local and national plans, policies, and strategies in the region.
- [State of Global Climate 2021 Report](#) (World Meteorological Organization): Combines input from multiple UN agencies, national meteorological and hydrological services, and scientific experts to highlight climate impacts on food security, population displacement, and crucial ecosystems, underscoring the hindrance climate change poses towards the Sustainable Development Goals.
- [Climatelinks](#): A global knowledge portal for climate change and development practitioners, with a focus on USAID requirements and activities. USAID/BHA develops Climate Risk Profiles (CRPs) specific to the sub-national RFSA geographies which may be found on this website. For example, the [USAID/BHA RFSA CRP for Haiti \(2021\)](#). Climatelinks also highlights implementation examples from across USAID activities showing how climate adaptation has been integrated into activities and interventions.

CONSTRUCTION RISK MANAGEMENT

Construction, including alteration and repair, of infrastructure is an output not a purpose of RFSAAs, but access to infrastructure can be a catalyst for economic development and can help target communities achieve food and nutrition security objectives. There are numerous links between infrastructure and nutrition, poverty, and food security outcomes. For example, “isolation is negatively correlated with linear growth and weight gain. Children in higher growth quintiles are found in districts with greater road and health facility densities, better water sources, more proximate agricultural markets, and greater public grain storage capacity”.^{9,10} More broadly, a recent study demonstrated that in fragile and conflict-affected settings, infrastructure can help societies prepare for and recover from conflict and other shocks.¹¹

Sustainable infrastructure management should consider community needs and existing capacity during each phase of an asset’s life cycle, including identification, construction, operations and

⁹ Shivley, GE (2017) [Infrastructure mitigates the sensitivity of child growth to local agriculture and rainfall in Nepal and Uganda](#). PNAS 114(5): 903-908.

¹⁰ Bird, K et al (2010) [Isolation and Poverty: The relationship between spatially differentiated access to goods and services and poverty](#). Chronic Poverty Research Center, London UK.

¹¹ Fantini C, Morgan G, Kumar S, Adeoti T, Reese A, Schouten P, Crosskey S & O’Regan N (202). [Infrastructure for Peacebuilding: The role of infrastructure in tackling the underlying drivers of fragility](#). UNOPS, Copenhagen, Denmark.

maintenance, and governance. Infrastructure management includes consideration for both software and hardware components.

INFRASTRUCTURE SOFTWARE

Infrastructure software refers to the non-technical, social capacity-building elements, such as personal and organizational skills, capacities, and management structures necessary for community members to identify, construct, and manage infrastructure systems. USAID/BHA encourages an infrastructure asset identification process grounded in in-depth, iterative, and participatory dialogue, as well as collaborative problem analysis and solution identification. Infrastructure design and construction should be based on technically-sound engineering plans overseen by qualified engineering professionals. Feasibility studies are one option to help assess the viability of long-term infrastructure success by weighing different technical designs, upfront and maintenance costs, potential social and environmental impacts, climate risks, and identified benefits and risks. Worker safety and dignity are paramount during construction, particularly because USAID/BHA infrastructure construction often involves unskilled RFSA participants engaged in for-work interventions. Sustainable operations and maintenance are critical to the post-completion success of infrastructure and management of construction risk. IPs should help develop clear operations and maintenance plans for infrastructure assets alongside transparent governance structures and sustainable finance systems to ensure that infrastructure will remain functional after completion. Other stakeholders should be included in the development of operations and maintenance plans as appropriate. The sustainability technical reference section provides additional resources to support sustained programming.

INFRASTRUCTURE HARDWARE

Infrastructure hardware refers to a structure's physical features and components including design and structural maintenance considerations for common physical (or "gray") infrastructure and nature-based solutions where appropriate. Identification, maintenance, and governance can support the sustainable management of an infrastructure asset, but a structure must also meet minimum international technical standards for design and construction.

RESOURCES

DESIGN, IMPLEMENTATION, AND OPERATIONS & MAINTENANCE

- [For-Work Guidance](#) (USAID/BHA): Outlines types of for-work interventions typically eligible for USAID/BHA funding.
- [Basic Engineering and Construction Management: A Primer](#) (USAID): Covers the basic steps in the process of planning and contracting engineering and infrastructure projects. While inclusive of sections that may not be relevant to USAID/BHA construction work, it remains a useful reference for implementing engineer-involved projects.
- [G20 Quality Infrastructure Investment Principles](#) (World Bank): A thematic framework for considering life-cycle cost, natural hazard risks, environmental and social impacts, climate change, gender mainstreaming, and good governance for operations and maintenance in RFSA activities. More information on the Quality Infrastructure Investment principles is available [here](#).
- [Operations and Maintenance of Rural Infrastructure in Community-Driven Development and Community-Based Projects](#) (World Bank): Discusses community-based approaches for O&M and provides examples of factors that contribute to successful O&M arrangements under community-driven and community-based development projects.

PRODUCTIVE WATER SYSTEMS

- [Introduction to Irrigation Project Design: A Primer for Non-Engineers](#) (USAID): Introduces the basic features of an irrigation system to a non-engineering audience and highlights important issues to be considered in designing development irrigation assistance projects.
- [The Farmer-led Irrigation Development Guide](#) (World Bank): A thorough and systems-thinking-based approach to irrigation development and describes a human-centered design approach applicable to the identification, design, implementation, operations, and maintenance of multiple infrastructure types, including non-irrigation system infrastructure.
- Further resources can be found in the Agriculture section.

RURAL TRANSPORTATION SYSTEMS

- [Sector Environmental Guidelines: Rural Roads](#) (USAID): Environmental guidance to support the construction and rehabilitation of rural roads one- or two-lane roads and roads in or around protected areas. USAID's support for road development or maintenance aims to increase farmers' access to markets and community access to services, such as health care or schools.
- [Low-Volume Roads Engineering](#) (USAID): An overview of key planning, location, design, construction, and maintenance factors of roads that can cause adverse environmental impacts and strategies to prevent harmful effects.
- [Green Roads for Water: Guidelines for Road Infrastructure in Support of Water Management and Climate Resilience](#) (Green Roads for Water Alliance): Provides an innovative approach for incorporating resilience and WRM into the design and construction of roads. Additionally, the Green Roads for Water Alliance website offers multiple resources related to greening unpaved roads and water harvesting structures for climate resilience, including nature-based solutions and strategies for coastal lowland, floodplain, and arid and semi-arid settings.

CROSS-CUTTING SOCIAL AND BEHAVIOR CHANGE

SOCIAL AND BEHAVIORAL CHANGE OVERVIEW

Social and behavior change (SBC) is the systematic application of iterative, theory-based, and research-driven processes and strategies for behavior change at the individual, community, and societal levels. SBC cuts across all sectors, and SBC approaches are used widely in health, nutrition, WASH, natural resource management, agriculture, livelihoods, disaster risk reduction, and other sector assistance. USAID/BHA recognizes that SBC can lead to improved food security practices at the individual, household, and community levels. As RFSA outcomes frequently include behavioral change, USAID/BHA encourages partners to use evidence and theory-driven SBC approaches to ensure the behavior change is sustained.

Well-designed SBC approaches seek to promote the adoption of positive behaviors by addressing not just individual attitudes, knowledge, and practices, but also the social and environmental factors that facilitate or constrain the adoption of the behavior in question. Therefore, SBC approaches target both the individuals who need to practice the desired behavior—the priority group—and the groups that influence the priority group's ability to practice the behavior—the influencing groups—and barriers or enablers within the physical environment. SBC approaches include communication approaches like interpersonal counseling, community mobilization, mass media campaigns, and non-communication-based

approaches for systems strengthening, e.g., interventions to address social and gender norms and improve the quality of and access to goods and services. SBC approaches should seek to leverage existing community resources and networks with new resources and information and move beyond one-way messaging to catalyze lasting change. Further, given the complexity of inciting and sustaining behavior change, activities are more likely to achieve their stated goals if they can prioritize the behaviors that are essential to achieving desired impacts; in SBC, less is often more.

DESIGNING SBC PROGRAMS: SBC THEORY, FORMATIVE RESEARCH, AND STRATEGY DEVELOPMENT

The theoretical basis for SBC approaches derives from several disciplines, including behavioral economics, experimental psychology, anthropology, sociology, public health, and environmental science. Many different theoretical frameworks and theory-driven resources have been developed to support the design of SBC approaches and are applicable across many different sectors.

Formative research and learning are typically required to successfully design or adapt SBC approaches within a given context. Formative research and learning for SBC generally aims to address one or more of the following objectives:

- Generate information that will aid the activity in further defining and/or prioritizing key behaviors.
- Uncover context-specific factors—including barriers and enablers—that support or prevent the practice of the behaviors in question.
- Determine whether the identified factors are feasible to address through the project.
- Identify and/or refine the focus on the priority and influencing groups.
- Identify and/or design feasible approaches, channels, delivery platforms, and appropriate media or methods to reach the target audiences.

A cross-cutting SBC strategy serves as a roadmap for achieving expected change in the priority behaviors. It draws pathways between the priority behaviors, target audiences, and activities to address the factors that prevent or support desired behaviors in that context. SBC strategy design begins with formative research and learning and uses a systematic process to synthesize findings across different learning activities to identify plausible intervention approaches and impact pathways. This strategy also serves as the basis for identifying capacity needs for implementation and appropriate M&E processes and indicators.

RESOURCES

GENERAL

- [SBC Parameters for RFSA Partners During Refine and Implement](#) (USAID): This document describes expectations for RFSA IPs could address social and behavior change, following 7 key milestones especially during the refinement phase post-award.
- [Handbook for Resilience Food Security Activities During the Refinement Period](#) (Advancing Nutrition): The purpose of this handbook is to orient RFSA partners with step-by-step

instructions for SBC best practices, providing practical tools for each milestone during the refinement period.

- [Report on a Review of Social and Behavior Change Methods and Approaches within Food for Peace Development Food Security Activities](#) (FANTA): Reviews aspects of multi-sectoral SBC theory, design, implementation, and evaluation.
- [Social and Behavior Change Insights and Practices: Practitioner's Guide](#) (GIZ): A comprehensive and accessible overview of SBC program design and implementation.

COMMON SBC THEORIES

- [Understanding Behavior to Understand Behavior Change: A Literature Review](#) (Heimlich and Ardoin): An overview of common theories and models of behavior change underlying individual behavior change approach, including transtheoretical model, diffusion of innovation, social cognitive theory, communication/persuasion model, health belief model, integrated model of behavioral prediction, locus of control, social learning, social marketing, and theory of reasoned action.
- [The Socio-Ecological Model](#) (C-Change): Highlights one of the most enduring and widely-used theories underpinning social and behavior change research and practice.
- [Introduction: A Family Systems Approach to Promote Maternal, Child, and Adolescent Nutrition](#) (Aubel et al.): Introduces cross-cutting insights, specific to nutrition, to improve the context-sensitivity and cultural relevance of SBC approaches.

ADULT LEARNING THEORY AND PRINCIPLES

- Adult learning theory and principles are critical to incorporate into the design of SBC approaches. [Stories Without an Ending: An Adult Education Tool for Dialogue and Social Change](#) (TOPS) is a practical resource grounded in adult learning principles that can be used to design community discussions on issues of priority concern to them and to catalyze discussion of those ideas in the wider community.

SBC FORMATIVE RESEARCH

- [Technical Note: Formative Research to Inform Social and Behavior Change Programming Design](#) (USAID Advancing Nutrition): This document shares considerations for planning formative research within USAID Bureau for Humanitarian Assistance (BHA)-funded Resilience and Food Security Activities (RFSAs) within the Refinement period.
- [USAID/BHA Guidance for Monitoring, Evaluation, and Reporting for Resilience Food Security Activities](#) (USAID/BHA): Provides general considerations for rigorous formative qualitative and quantitative research design.
- [SBC Formative Research Decision Tree](#) (USAID Advancing Nutrition): A tool for nutrition programmers when gathering information needed to design any nutrition SBC program or activity.

PARTICIPATORY METHODS

- [The Trials of Improved Practices](#) (Behaviour Change): Offers an approach to analyze current practices with community members and determine the best route for improving practices and information messaging. The Behavior Change website links to several resources on designing and conducting trials of improved practices.
- [Human-Centered Design](#) (FANTA): Applies principles from the private sector to solve problems in global health and development.

OTHER RESEARCH RESOURCES

- [Compass for SBC](#): Hosts several resources on how to conduct audience analysis and audience segmentation to ensure that approaches are achieving the highest impact possible by reaching the right audiences with the right information.
- [The Social Norms Exploration Tool](#) (Passages Project): Provides a process to conduct a rapid formative assessment of social norms and their influence in a given programmatic context.

SBC STRATEGY DEVELOPMENT

- [Report on a Review of Social and Behavior Change Methods and Approaches within Food for Peace Development Food Security Activities Review](#) (FANTA): Offers cross-cutting SBC strategy design considerations.
- [Prioritizing Multi-Sectoral Nutrition Behaviors](#) (USAID Advancing Nutrition): A tool for nutrition program planners and implementers to achieve effective social and behavior change by sharpening their focus on fewer behaviors.
- [Using Research to Design a Social and Behavior Change Strategy for Multi-Sectoral Nutrition](#) (USAID Advancing Nutrition): A nutrition-oriented tool for consolidating research findings into a coherent strategy, which can also apply to other sectors.

FRAMEWORKS AND TRAINING RESOURCES FOR PLANNING THEORY-BASED INTERVENTIONS

- [Think Big Behavior Integration and Behavior Profiles](#) (The Manoff Group): Provides examples of behavior profiles for multiple sectors and analyzes specific behaviors, delineating logical pathways from the behavior to the factors and actors influencing the behavior to program strategies. Behavior profiles are created for the specific context, e.g., region, country, locale, using desk and formative research as well as what is presently known about the behavior.
- [The Behavior Change Wheel: A New Method for Characterizing and Designing Behaviour Change Interventions](#) (Michie et al.): Provides an efficient method of choosing appropriate interventions for a given behavioral target in a given context and a given population.
- [The Behavior Change Technique Taxonomy \(v1\) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions](#) (Michie et al.): A detailed list of specific, evidence-based behavior change techniques using the Behavior Change Wheel's 16 categories of behavior change approaches and functions.
- [Intervention Mapping](#) (Fernandez et al.): Allows planners to apply theories by linking social-cognitive determinants of behavior to methods for behavior and environmental change, as well as linking methods for behavior change to practical applications that operationalize these methods.
- [The C-Change Curriculum](#) (FHI 360): Lays out a systematic process for designing and implementing SBC interventions based on the socio-ecological model.
- [The P Process: Five Steps to Strategic Communication](#) (Hopkins Health Communication Capacity Collaborative): A tool to guide users through a step-by-step approach to strategic communication from analysis through design, development, implementation, and evaluation.
- [Passages Project: Social Norms Training Curriculum](#) (Institute for Reproductive Health): Lays out theory-driven considerations for interventions to incite changes in social norms.

OTHER CROSS-CUTTING RESOURCES

- [Food Security and Nutrition Network SBC Task Force Resource Library](#) (TOPS): Practical implementation-focused guides, tools, and training materials on SBC.

- [Make Me a Change Agent: An SBC Resource for WASH, Agriculture, and Livelihoods Activities](#) (SCALE and PRO-WASH): Designed for community-level workers who work on agriculture, livelihoods, and WASH-related activities and who engage with communities on behavior change and adoption of new techniques and practices. The resources aim to help community-level workers strengthen fundamental skills and techniques around communication, negotiation, and facilitation.

TECHNICAL AREA-SPECIFIC RESOURCES

AGRICULTURE

- [Resilience Design in Smallholder Farming Systems](#) (USAID-FSN Network): Presents the Resilience Design (RD) in Smallholder Farming Systems Approach to help farmers and those who support them have a deeper understanding of their farming systems within their agroecosystems. The RD approach helps farmers identify influences that affect their farm sites as well as external resources that can benefit the site. Guided by a set of principles, farmers can then adjust their farm design work with surrounding natural systems, ultimately improving soil health and water management.
- [Permagarden Toolkit](#) (TOPS): Intended for development practitioners working with farmers to incorporate permagardens into their farming systems. It includes step-by-step, clear instructions and visuals, adult education materials, and a training of trainers guide.
- [The Home Garden Toolbox](#) (World Vegetable Center): A comprehensive collection of training materials and technical references designed for field-level facilitators to carry out effective garden training. Home gardens, also known as kitchen gardens or homestead gardens, are critical sources of both nutrition and income for low-income households.
- [Integrated Pest Management in Vegetable Production: A Guide for Extension Workers in West Africa](#) (IITA): a guide outlining technical knowledge and skills that can be used to look for, develop, and apply effective vegetable integrated pest management (IPM) options. The IPM options outlined here are sustainable, simple to apply, cheap to maintain, and in harmony with the environment. The guide draws heavily on IITA's experiences in Africa, with a particular emphasis on vegetable agroecosystems in Benin. Given the substantial economic costs of pest infestations in vegetable agroecosystems, the use of this guide in relevant contexts within Africa is expected to improve incomes and overall agricultural productivity in the long term.
- [Management of Aflatoxins in Maize and Groundnuts in Kenya: A Farmers' Training Manual](#) (IITA): A manual designed to help address the threat posed by exposure to aflatoxins in farming communities. Though designed for use in Kenya, its lessons can be applied by all groundnut and maize producers to prevent aflatoxins at the farm level. It is designed to equip field extension staff with information that they can use to train farmers.
- [Principles, Approaches and Guidelines for the Participatory Revitalisation of Smallholder Irrigation Schemes](#) (J. Denison & S. Manona): A brief, action-oriented reference guide identifying main principles, approaches, and methodologies to support and guide implementing teams. This publication is the result of a three-year project to develop guidelines for the revitalization of smallholder irrigation schemes in South Africa, though the concepts and principles are more widely applicable.
- [Pastoralist Field Schools Training of Facilitators Manual](#) (FAO): Focuses on production methods and practices in arid and semi-arid lands and conflict-prone regions. It provides approaches for livestock herds in extensive systems, mobile nomadic applications, disaster risk reduction, and conflict management tools for illiterate groups.
- [Holistic Grazing Planning and Reciprocal Grazing Agreements Approach](#) (VSF Germany): A field manual for teaching and implementing holistic grazing planning for pastoralists with

pictures, hands-on exercises, and practical examples. This resource also provides information on how to use the Reciprocal Grazing Agreements Approach in pastoral areas as a practice for the usage of shared resources.

- [Visual Manual on Good Beekeeping Practices for Small-Scale Beekeepers in Africa](#) (FAO): A visual training tool that provides practical knowledge and guidance on good beekeeping practices for small-scale keepers in the African context. It provides an illustrative overview of the negative consequences of unsustainable honey harvesting and an overview of how to sustainably harvest honey. It also details how to make and use beekeeping equipment.

CONFLICT SENSITIVITY

- [Gender & Conflict Analysis Toolkit for Peacebuilders](#) (Conciliation Resources): Practical guidance to conflict sensitivity practitioners on using gender and conflict analysis. Integrating gender into conflict analysis can increase the inclusivity and effectiveness of peacebuilding interventions.

CONSTRUCTION RISK MANAGEMENT

- [Operations and Maintenance of Rural Infrastructure in Community-Driven Development and Community-Based Projects](#) (World Bank): Discusses community-based approaches for operations and management (O&M) and provides examples of successful O&M arrangements under community-driven and community-based development projects to better understand factors contributing to success.
- [The Farmer-Led Irrigation Development Guide](#) (World Bank): A thorough systems-thinking-based and human-centered design approach to irrigation development that is applicable to the identification, design, implementation, and O&M of multiple infrastructure types beyond just irrigation systems.

GENDER AND YOUTH

- [Focus on Families and Culture: A Guide for Conducting a Participatory Assessment on Maternal and Child Nutrition](#) (The Grandmother Project): A guide published with USAID funding that provides information about understanding family roles and influence to develop effective, culturally grounded community nutrition interventions.
- [Girl-Centered Program Design: A Toolkit to Develop, Strengthen and Expand Adolescent Girls Programs](#) (Population Council): Outlines how to conduct beneficiary targeting, needs assessments, and M&E, as well as how to determine program structure and content. It also includes useful handouts for girl-focused programs.
- [A Guide and Cheat Sheet for Resilience Food Security Activities: How to Engage Youth in Alternative Livelihoods](#) (SCALE): Designed to point implementers to the most relevant materials for supporting youth alternative livelihoods, defined as off-farm and non-farm work, within USAID/BHA-funded food security programs. It is intended to be a working document so that new resources can be included as they become available. The first section of the document introduces the importance of engaging youth in USAID/BHA-funded food security programs and provides an overview of key knowledge platforms, approaches, and considerations for supporting youth engagement. The second section outlines a pathway to meaningful employment and self-employment, providing a summary of practical activities and key resources for including youth each step of the way.

NUTRITION AND HEALTH

- [Care Groups: A Training Manual for Program Design and Implementation](#) (TOPS): A training resource for designing, training, implementing, and monitoring Care Group programs.
- [Learning From the Design and Implementation of Large-Scale Programs to Improve IYCF](#) (Baker et al.): Summarizes major lessons from Alive & Thrive's work to improve infant and young child feeding (IYCF) in Bangladesh, Ethiopia, and Vietnam.
- [Introductory Workshop on Integrating Gender and Nutrition Within Agricultural Extension Services: Facilitator's Guide](#) (INGENAES): A workshop developed by the Integrating Gender and Nutrition within Extension and Advisory Services (INGENAES) Project.
- [Accelerating Behavior Change - Nutrition-Sensitive Agriculture](#) (SPRING): A one- to two-day online course for agriculture project designers and implementers, including those focused on food security, livelihoods, value chains, and broader agricultural market development.

WATER RESOURCES MANAGEMENT

- [OECD Principles on Water Governance](#) (OECD): 12 must-dos for governments to design and implement effective, efficient, and inclusive water policies. To date, they have been endorsed by more than 170 stakeholder groups and governments.
- [From Conflict to Collaboration in Natural Resource Management: A Handbook and Toolkit for Practitioners Working in Aquatic Resource Systems](#) (Collaborating for Resilience): Can be used to support any participatory process aimed at sustainable resource and conflict management.
- [Conflict Resolution and Negotiation Skills for IWRM: Training Manual](#) (Cap-Net): An integrated WRM (IWRM) training manual produced by the International Network for Capacity Building in IWRM.
- [Why Gender Matters: A Tutorial for Water Managers](#) (Cap-Net): A self-learning tool for professionals and managers in the water sector designed to help them account for the different needs of women and men in their work. Additionally, the tutorial highlights the importance of gender mainstreaming in the water sector.

SBC CAPACITY STRENGTHENING

Given the central role of SBC in RFSA, quality design and implementation are paramount. However, evaluations of past RFSA programming have surfaced persistent issues with implementation quality for SBC interventions, largely related to poor or inconsistent SBC capacity.¹² Low-quality implementation and poor implementation capacity—particularly where capacity transfers and handovers to local actors and institutions are part of the activity's sustainability strategy—also threaten the sustainability of SBC interventions and outcomes. USAID Advancing Nutrition developed the cross-cutting [Social and Behavior Change Competency Assessment: Tool for Resilience Food Security Activities](#) to assess SBC competencies and develop a plan to address gaps.

MONITORING AND EVALUATION

Indicators to measure changes in behaviors, outcomes associated with behavior change, and the factors that a project targets (i.e., the multi-level barriers/enablers identified through formative assessments) are critical to monitor and evaluate SBC strategies. Qualitative

¹² IMPEL. (2020). [Learning from Evaluations: A Review of 16 Mid-Term Evaluations of USAID-funded Food Security Development Programs from 2015-2020](#). Washington, DC: The Implementer-Led Evaluation & Learning Associate Award

monitoring and process evaluations are useful tools to assess progress, as shifts in social norms and attitudes are challenging to capture with static, quantitative indicators. See the [USAID/BHA Guidance for Monitoring, Evaluation, and Reporting](#) and the [Qualitative Design Toolkit: Qualitative Methods for Monitoring Food Security Activities Funded by the USAID Bureau for Humanitarian Assistance](#) for general information on qualitative monitoring and designing qualitative inquiries. The resources below were developed by USAID Advancing Nutrition to inform M&E for multisectoral nutrition SBC interventions, but convey useful cross-cutting principles for monitoring and evaluating SBC interventions:

- [Measuring Social and Behavior Change in Nutrition Programs: A Guide for Evaluators](#) (USAID Advancing Nutrition)
- [Evaluating Social and Behavior Change Components of Nutrition Activities: A Design Guide for USAID Staff](#) (USAID Advancing Nutrition)
- [Monitoring Social and Behavior Change for Multi-Sectoral Nutrition](#) (USAID Advancing Nutrition, English and French versions available)

ONE HEALTH

USAID and the international community are working together diligently in a time of global climate change, pandemic, and biodiversity loss to ensure the well-being of people, animals, and the environment on which we all depend. One Health (OH) is a collaborative, multisectoral, and transdisciplinary approach working at local, regional, national, and global levels to achieve results that recognize the interconnection between people, animals, plants, and their shared environment. USAID is putting this approach into practice.¹³ USAID/BHA employs an OH lens in all of its work, and this is particularly evident in its ER4 work, especially concerning the creation of more resilient health systems.

RESOURCES

- [Definition of One Health](#) [Joint Tripartite (FAO, OIE, WHO), UNEP]: A short brief of the One Health definition developed by the OH High-Level Expert Panel states.
- [USAID and One Health Website](#) (USAID): A brief overview of some of the OH work happening at USAID.
- [FAO One Health Website](#) (FAO): An overview of the work of FAO on OH and links to OH publications.
- [Contributing to One World, One Health: A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal–Human–Ecosystems Interface](#) (UN): Aims to establish how best to diminish the risk and minimize the global impact of epidemics and pandemics due to emerging infectious diseases (EID) by enhancing disease intelligence, surveillance, and emergency response systems at national, regional, and international levels, and by supporting them through strong and stable public and animal health services and effective national communication strategies.

SUSTAINABILITY

USAID/BHA seeks to maximize long-term impact by establishing effective sustainability and exit strategies. These strategies build the capacity of host-country entities, whether private or public, to sustain service to their clients without interruption and at a consistent level of quality after external assistance ends. USAID/BHA holds that sustained resources, technical and managerial capacity, motivation, and linkages among program entities are crucial to long-term sustainability.

¹³ USAID. [One Health: Connecting the Dots Between Human Health and the Environment](#).

USAID/BHA seeks to implement effective models, build local capacity, and promote an enabling environment that is adapted to the specific contexts of the countries where it works. USAID/BHA seeks to support, wherever possible, self-financing and self-transferring models that can operate under their own momentum during and after the project. USAID/BHA expects these models to be adopted and adapted by a significant proportion of the population, helping to improve the sustainability and impact of interventions.

USAID/BHA requires all applicants to submit a sustainability plan and encourages awardees to identify public- and private-sector local actors who are willing to deliver necessary services and inputs to support the practices and behaviors promoted by RFSA activities. Awardees develop the managerial and technical capacity of these local actors during the life of a RFSA based on an operational or business plan jointly developed with the local actors. RFSA awardees are expected to transition to a facilitative approach during the life of a RFSA. USAID/BHA expects that RFSA awardees empower and capacitate these local actors to provide services and inputs based on their business or operational plan from the fourth year of the award. USAID/BHA and awardees successfully piloted a model in Bangladesh where local service providers started to deliver essential services using market-based approaches.

Several years ago, FANTA carried out an assessment of [Exit Strategies and Sustainability in Four FFP Programs](#) that were in the process of closing out or had recently closed out in India, Kenya, Bolivia, and Honduras. The study identifies four factors—resources, capacities, motivation, and linkages—that are critical to sustaining access to, demand for, and delivery of services that contribute to sustained development outcomes. The synthesis report summarizes findings and lessons learned across the four countries and makes recommendations for IPs. Country-specific reports are also available for the four countries.

- [Synthesis Report](#) - Full report
- [Synthesis Report](#) - Executive Summary
- [Kenya Country Study](#) - Full Report
- [Kenya Country Study](#) - Executive Summary
- [Bolivia Country Study](#) - Full Report
- [Bolivia Country Study](#) - Executive Summary
- [Honduras Country Study](#) - Full Report
- [Honduras Country Study](#) - Executive Summary
- [India Country Study](#) - Full Report
- [India Country Study](#) - Executive Summary

Recently, USAID/BHA requested a high-level review of the recommendations and findings of highly participatory mid-term evaluations or reviews (MTE/Rs) of development food security activities (DFAPs and DFSAs) at the mid-point of each activity's five-year term. Since 2015, these reviews have been completed on MTE/Rs and have identified common themes or trends that could inform future programming more broadly and lead to improved food security outcomes.

- [Learning from Evaluations: A Review of 16 MTE/Rs of DFAPs/DFSAs from 2015-2020 \(IMPEL\)](#)

SUSTAINED RESOURCES

- Self-Financing Mechanisms

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

BEST PRACTICES

- [What We Know About Exit Strategies: Practical Guidance for Developing Exit Strategies in the Field](#) (C-SAFE): Step-by-step guidance on how to develop, implement, and monitor sound exit strategies for developmental relief projects and improve understanding to enable the 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): Assists project managers, planners, and evaluators in their efforts to improve 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, developed through the USAID Child Survival and Health Grants Program.

SUSTAINED MOTIVATION

- Economic Incentives
- Environment of Investment, Not Entitlement
- Facilitating Private Sector Involvement

BEST PRACTICES

- [Guidelines for Successful and Sustainable Involvement of ISMEs in Southern Africa Agribusinesses](#) (USAID Consultant Report): Identifies documents and reports providing insight or specific examples of successful approaches for stimulating and supporting indigenous small and medium enterprise development in agribusiness with an emphasis on 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 with a focus on subsidy-free infrastructure development and maintenance.

SUSTAINED LINKAGES

- Private Sector Used for Service and/or Input Delivery
- Long-Term Partnerships Formed with Other Development Actors

- Facilitating Market Linkages

BEST PRACTICES

- [Partners in Technology Generation and Transfer: Linkages between Research and Farmers' Organizations in Three Selected African Countries](#) (ISNAR): Examines experiences linking local research institutions to farmers' groups in Burkina Faso, Ghana, and Kenya. The study found farmers' groups had few or no linkages to research institutions. It concluded that better linkages are needed and can be accomplished by giving farmers' groups more decision-making power in setting and implementing the research agenda; establishing more effective linkage mechanisms, some initiated by farmers' organizations; and jointly defining sound linkage policies and strategies.
- [Facilitating Systemic Change in Value Chains: Lessons Learned for Strengthening Country Systems](#) (KDMD): Reviews USAID's experience with inclusive value-chain development and describes how to facilitate systemic change in markets. The review emphasizes the facilitation approach and concludes that it is preferred to direct delivery of services because it leads to more sustainable solutions.

HUMANITARIAN-DEVELOPMENT-PEACE COHERENCE IN FOOD SECURITY PROGRAMMING

USAID/BHA is committed to encouraging humanitarian-development-peace (HDP) coherence in RFSAs to promote complementary collaboration across humanitarian, development, and peace programming and action in pursuit of a common agenda that maximizes impact and sustainability and reduces the need for humanitarian assistance over time.

RESOURCES

- [Programming Considerations for Humanitarian-Development-Peace Coherence: A Note for USAID's Implementing Partners](#) (USAID Resilience Leadership Council): Describes USAID's seven core principles and provides examples and promising practices of HDP coherence efforts across the spectrum of programming from short-term relief to long-term development.
- [Humanitarian-Development-Peace Nexus Recommendation](#) [Organisation for Economic Co-operation and Development-Development Assistance Committee (OECD-DAC)]: Presents a global framework of eleven principles grouped under three categories—coordination, programming, and funding—adhered to by governments, UN Agencies, and others to incentivize and implement collaborative, complementary actions, particularly in fragile and conflict-affected situations.
- [Visualizing the "P" in HDP Nexus](#) (FAO): Covers conflict sensitivity relevant to all pillar sectors and the importance of centering local actors to support peace and build more resilient, peaceful societies.
- [Knowledge Sharing Series on HDP Coherence](#) (Implementer-led Design, Evidence, Analysis, and Learning): Provides learnings and examples collected from a series of 13 moderated sessions with humanitarian and development experts discussing various aspects of HDP coherence under four themes: locally-led, data, coordination, and SLI.

IV. TECHNICAL AREAS

AGRICULTURE

The basic elements of good resilience design in agriculture should include a thorough understanding of existing food systems, particularly around the production of foodstuffs. In a

given geographical area, this understanding should identify agriculture production systems, what a resilient agriculture system would look like, and what constraints exist between the two. In the past, legacy FFP and USAID/BHA-funded multi-year food security and resilience activities have attempted to solve every problem or issue related to nutrition and food security; however, IPs have struggled to effectively implement activities with too many overly complicated food security, agriculture, and nutrition interventions. Therefore, it is important to strategically identify and rank the greatest agriculture production constraints and design robust solutions that respond to those constraints. Additionally, problems may not be at the individual or community level. External systems that are integral to agriculture production, such as seed systems for farmers or veterinary medicine supply for pastoralists may require strengthening. Finally, as agriculture is part of a broader contextual landscape alongside NRM, land tenure, socio-economic factors, and culture, problems must be integrated with other sectors to achieve greater resilience targets.

It is critical to include systematic approaches to adult education and behavior change interventions (please see the SBC section). The approach used should be researched, articulated, and include the participation of target communities. Moreover, interventions and approaches should consider the needs of women, youth, and other vulnerable populations. RFSA IPs should articulate agriculture training in detail to ensure quality implementation of agriculture interventions and achievement of agriculture resilience goals. The following resources support these efforts:

FIELD CROPS AND VEGETABLE GARDEN PRODUCTION

Farming and gardening are considered distinct within different contexts based on the types of crops grown, whether or not the crops are rainfed or irrigated, the areas (hectarage) in which the crops are grown, the post-harvest usage of the crops (e.g., those grown for consumption vs. market), who grows the crops, and so forth. Although these distinctions may be assumed at the country level, the approaches for crops and gardens are largely the same and deserve equal treatment. Therefore, any RFSA project working with field crops or gardens must practice a holistic approach. Specifically, all RFSA should include overall production systems for crops being targeted, seeds and seed systems, on-farm soil and water conservation, Integrated pest management (IPM), and post-harvest management. If crops or gardens require watering, then the project will also include irrigation. All approaches within these sub-sectors should be designed with long-term sustainability in mind, and where possible, utilize or enhance local resources to build resilience in crop and garden production.

Partners are strongly encouraged to utilize so-called climate-smart agriculture (CSA) practices as a response to identified abiotic risks related to temperature or rainfall, including excess heat, heavy rains, strong winds, and drought. However, these approaches should clearly articulate how they respond to climate risks identified by the RFSA. Additionally, they would be incorporated into the subject areas delineated above.

RESOURCES

CROP AND GARDEN PRODUCTION SYSTEMS

- [Resilience Design in Smallholder Farming Systems](#) (USAID-FSN Network): Helps farmers and those who support them gain a deeper understanding of their farming systems within their agroecosystems. The resilience design (RD) approach helps farmers identify influences that affect their farm sites as well as external resources that can benefit the site. Through

this set of principles, farmers can then adjust their farm design work with surrounding natural systems to improve soil health and water management.

- [Permagarden Toolkit](#) (TOPS): Supports development practitioners working with farmers to incorporate permagardens into their farming systems. The toolkit includes step-by-step, clear instructions and visuals, adult education materials, and a training of trainers guide.
- [The Home Garden Toolbox](#) (World Vegetable Center): Provides a comprehensive collection of training materials and technical references designed for field-level facilitators to carry out effective garden training.
- [Cassava System Cropping Guide](#), [Maize-Legume Cropping Guide](#), and [Guide to Cowpea Production in West Africa](#) (IITA): Illustrative but useful examples of crop production guides available through ICRISAT, IITA, ICRAF, and multiple other public international or national research organizations. When cultivating a specific crop or crops, implementers should include guidelines such as these as standard references to establish standards for crop planting, timing, intercropping, pest management, and the like.

SEEDS AND SEED SYSTEMS

- [Strengthening Smallholder Seed Systems \(Seedsystem.org\)](#): A comprehensive website guide to seed system assessment, containing case studies, practical guidance, manuals, research resources, and data as well as e-learning tools to support analyzing, documenting, and understanding seed systems.
- [Seeds in Emergencies: A Technical Handbook](#) and [Quality Declared Plant Material: Protocols for Vegetatively-Propagated Crops](#) (FAO): Standards to assess the quality of actual seeds or vegetatively propagated crops, also referred to as roots, tubers, and bananas (RTB). In addition, due to the higher likelihood of disease transmission in RTBs, the latter publication covers major diseases afflicting RTBs, prevention of those diseases, and basic agronomic practices for each crop.
- [Sowing Diversity, Harvesting Security](#) (Oxfam): Contains a wealth of information concerning enhancing local seed supply using seed multiplication through various participatory methods and includes user/facilitator manuals on participatory [Varietal Selection](#), [Participatory Varietal Enhancement](#), and [Participatory Plant Breeding](#).

SOIL AND WATER CONSERVATION

- [Water Harvesting: A Manual for the Design and Construction of Water Harvesting Schemes for Plant Production](#) (FAO): Practical guidelines on the implementation of simple, field-scale water harvesting schemes for the improved production of crops, trees, and rangeland species. It includes selection criteria and detailed technical designs for the various systems, as well as information on field layout and construction. The manual focuses on arid and semi-arid areas featuring low and erratic rainfall, high rates of runoff, and unreliable food production.
- [Erosion Control in the Tropics](#) (Agromisa): Addresses several methods of agronomic control of erosion, including cover crops, contour farming, and improved fallow and strip cropping. The manual also includes measures to reduce runoff and annexes listing several tree and legume species, which can be integrated into cropping systems.

INTEGRATED PEST MANAGEMENT

- [Pest and Pesticide Management](#) (FAO): Integrated pest management (IPM) is the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations. It combines biological, chemical, physical, and crop-specific cultural management strategies and

practices to grow healthy crops and minimize the use of pesticides, reducing or minimizing risks posed by pesticides to human health and the environment for sustainable pest management.

- [Fall Armyworm in Africa: A Guide for Integrated Pest Management](#) (USAID-Agrilinks) summarizes the responses by donors and partners to Fall Armyworm following the pest's emergence across most of sub-Saharan Africa in the mid-2010s.
- [Integrated Pest Management in Vegetable Production: A Guide for Extension Workers in West Africa](#) (IITA): Shares technical knowledge and promotes skill development to support effective vegetable IPM options. The IPM options outlined are in harmony with the environment, sustainable, simple to apply, and cheap to maintain. The guide draws heavily on IITA's experiences in Africa, with a particular emphasis on vegetable agroecosystems in Benin. Given the substantial economic costs of pest infestations in vegetable agroecosystems, the use of this guide in Africa is expected to improve incomes and overall agricultural productivity in the long term.

POST-HARVEST MANAGEMENT

- [Training Manual for Improving Grain Post-Harvest Handling and Storage](#) (WFP)
- [Handling and Storage Methods for Fresh Roots and Tubers](#) (FAO): Supports post-harvest management for grains, pulses, and fresh roots and tubers, including cassava roots, yams, potatoes, sweet potatoes, and cocoyams (taros/eddoes).
- [Small-Scale Postharvest Handling Practices: A Manual for Horticultural Crops \(5th Edition\)](#) (UC Davis) focuses on the handling, preservation, and value addition of garden vegetables at the small-scale farmer level with a particular emphasis on safety and food quality. The manual covers the basics of food degradation, preparation of food for consumption or market, curing of different root crop types, packing, insect control, storage, and transportation of vegetable crops.
- [Management of Aflatoxins in Maize and Groundnuts in Kenya: A Farmers' Training Manual](#) (IITA): Addresses the threat posed by exposure to aflatoxins in farming communities. Though designed for use in Kenya, it has broad lessons that are suitable for the prevention of aflatoxins at the farm level for all groundnut and maize producers. The manual is designed to equip field extension staff with information that they can use to train farmers.

IRRIGATION

- [Principles, Approaches and Guidelines for the Participatory Revitalisation of Smallholder Irrigation Schemes](#) (Denison and Manona): Easy access to main principles, approaches, and methodologies to support and guide action-oriented implementing teams. This publication was the result of a 3-year project to develop guidelines for the revitalization of smallholder irrigation schemes in South Africa though the concepts and principles are applicable beyond.
- [Irrigation Best Practices for Smallholder Irrigation](#) (Mati): Summarizes the major components of irrigation planning, design, development, management, and the requisite factors considered. The training manual is designed to improve the skills of engineers, technicians, extension workers, managers, and practitioners of irrigated agriculture, especially those working in smallholder irrigation in Africa. More specifically, the manual equips the reader with knowledge on how to identify the appropriate irrigation system for a given area or circumstances and plan and design irrigation systems.
- [Guidelines for Designing and Evaluating Surface Irrigation Systems](#) (FAO): Supports the efforts of irrigation technicians to evaluate surface irrigation systems including canals, trenches, and furrows, with a farm-level focus. Key aspects of surface irrigation design and

implementation are discussed, including reducing inefficiencies in surface water conveyance systems that reduce water losses.

- [Drip Irrigation: Options for Smallholder Farmers in Eastern and Southern Africa](#) (ICRAF): Presents drip irrigation options for extension officers in eastern and southern Africa. It describes several low-cost and high-production-potential drip irrigation methods and is intended to support field extension workers through examples of small-scale drip irrigation systems in use in sub-Saharan Africa and other arid areas of the world.
- Additional references related to general infrastructure design, implementation, and operations/maintenance can be found in the Construction Risk Management section.

LIVESTOCK

Livestock play an integral role in sustaining livelihoods, food, and nutrition security for vulnerable people around the world, especially children. A well-designed RFSA holistically integrates sustainable livestock activities with a One Health framework in mind. For livestock programming to be successful and have long-term livelihood and nutrition impacts, capacity building in animal health services is paramount. Market-based methods for procuring livestock, animal health or veterinary services, and veterinary pharmaceuticals are considered best practices. Veterinary pharmaceuticals should be administered as part of a valid veterinarian-patient-owner relationship and administered by a trained professional, such as a community animal health worker, livestock technician, paravet, or veterinarian, to ensure the appropriateness and safety of medication administration, make certain environmental standards are met in regards to administration and disposal, and decrease the spread of antimicrobial resistance. Please refer to the [USAID/BHA Pharmaceutical Guidance](#) for more information on the procurement of veterinary pharmaceuticals, including vaccines, and other medical commodities.

Livestock production systems are context-specific and may vary depending on location. Still, sustainable and environmentally friendly methods of production need to be taken into account when implementing programs, including a thorough assessment of their short- and long-term environmental impacts in the area of implementation. Climate change considerations, along with their frequent and recurrent shocks to a system should be taken into account to ensure that livestock programs are developed with adaptability and the capacity to withstand both predictable and unpredictable climate events.

Finally, beekeeping is becoming a more common livelihood activity, which also has the potential to promote food security and sustainability. With global honey bee populations being threatened due to a variety of health factors, it is important to follow good management practices, be aware of honey bee diseases and how to mitigate them, and follow sustainable and environmentally sound guidelines.

RESOURCES

LIVESTOCK PRODUCTION

- [FAO Incorporating Climate Change Considerations into Agricultural Investment Programs: A Guidance Document](#) (FAO): Helps projects involving the agriculture sector, including livestock, to incorporate climate change considerations into every stage of the project cycle. Examples of climate change mainstreaming are provided throughout along with references to information from FAO and other agencies, as well as guidance on rapid assessments and

disaster risk management. The guidance document is meant to apply to investment projects or programs in rural development and agriculture including fisheries, livestock, and forestry.

- [Pastoralist Field Schools Training of Facilitators Manual](#) (FAO): Focuses on production methods and practices in arid and semi-arid lands and conflict-prone regions. The manual provides approaches for livestock herds in extensive systems, mobile nomadic applications, disaster risk reduction, and conflict management tools for illiterate groups.
- [Tropical Animal Feeding Manual](#) (FAO): Provides advice on sustainable nutrition for livestock and making better use of local resources for smallholder farmers in developing countries.
- [Livestock and Water in Developing Countries](#) (ILRI): Offers an overview of livestock-water interactions in developing countries, highlighting potential pitfalls in sustainable livestock production systems, and research opportunities.

ANIMAL HEALTH SERVICES, VETERINARY PHARMACEUTICALS, AND OTHER MEDICAL COMMODITIES

- [Veterinary Paraprofessionals Education Competency Guidelines](#) (OIE): An overview of the desired competencies for veterinary paraprofessionals working in animal health and veterinary public health. While they are primarily intended for curricula programs in the context of a formal veterinary training institution, they can be used as a basis for veterinary service provision and training in an informal setting.
- [Good Emergency Management Practice: A Guide to Preparing for Animal Health Emergencies](#) (FAO): Guidance for preparing for animal health emergencies from a variety of threats. This guide can be used to reinforce disaster preparedness elements that need to be included in resiliency programming for animal health services to be sustainable.
- [OIE Priority Diseases](#) (OIE): Resources and information on terrestrial and aquatic animal diseases, including wildlife diseases that may have an impact on livestock health. When implementing livelihoods and nutrition programming that includes livestock, partners should be familiar with this website and refer to it regularly when deciding upon animal health service programs and incorporating disaster risk reduction elements.

MARKETING & VALUE CHAIN

- [Investing in Sustainable Livestock Guide](#) (World Bank): Technical guidance on context-specific needs via an online platform and information resource for developing sustainable livestock production systems, with a focus on environmental and animal health. The interactive component of the guide can help design new livestock projects or guide projects already being implemented so they contribute to sustainability.

PASTURE MANAGEMENT & REHABILITATION

- [IFAD Brief: Pasture Restoration](#) [International Fund for Agriculture Development (IFAD)]: Guidance on rehabilitating degraded grasslands used to feed livestock species and increasing the resilience of pastures to climate change.
- [Holistic Grazing Planning and Reciprocal Grazing Agreements Approach](#) (VSF Germany): Information on how to use the Reciprocal Grazing Agreements Approach in pastoral areas as a shared resource use practice. The book is designed as a field manual for teaching and implementing holistic grazing planning for pastoralists by providing pictures, hands-on exercises, and practical examples.

FODDER PRODUCTION

- [Fodder Development in Sub-Saharan Africa: An Introduction](#) (Boote et al.): Information that can be used for the development and implementation of efficient and sustainable integrated systems, with a focus on Sub-Saharan Africa. Topics include improved fodder production and utilization practices, forage conservation, novel tools to measure forage nutrition value, and social and economic aspects of crop-livestock systems.
- [Feed Assessment Tool \(FEAST\)](#) (ILRI): A systematic method to assess local feed resource availability and use. The assessment tool helps in the design of intervention strategies aiming to optimize feed utilization and animal production. The FEAST methodology comprises a guide and questionnaire, a data template, and a data template manual.

APICULTURE (BEEKEEPING)

- [Good Beekeeping Practices for Sustainable Apiculture](#) (FAO): Focuses on the management of different social species of bees in various parts of the globe with an emphasis on sustainable beekeeping. In keeping with the intent of achieving the UN Sustainable Development Goals, these guidelines use an OH approach to provide practical information on good management practices beekeepers should follow to obtain high-quality bee products, including innovations in beekeeping.
- [World Honey Bee Health](#) (University of Florida Institute of Food & Agricultural Sciences): The Honey Bee Research and Extension Laboratory (HBREL) is an open-source, interactive website to obtain and report information regarding global distributions of pests or pathogens affecting honey bees. The HBREL source provides up-to-date mapping for ongoing honey bee pests and diseases with research citations. When implementing new beekeeping projects, this resource can provide helpful information in selecting bee procurement sources and determining appropriate honey bee health mitigation measures based on the location of the project.
- [Visual Manual on Good Beekeeping Practices for Small-Scale Beekeepers in Africa](#) (FAO): Practical knowledge and how-to on beekeeping practices for small-scale keepers in the African context. The manual provides an illustrative overview of the negative consequences of unsustainable honey harvesting practices, followed by an overview of how to sustainably harvest honey and how to make and use beekeeping equipment.
- [Good Beekeeping Practices: Identifying Main Diseases of the Honey Bee](#) (FAO): Information on identifying and controlling the most common diseases in honey bees and is designed to be used by beekeepers, veterinarians, and beekeeping advisory services. In addition to providing an overview of the most common diseases affecting honey bee health, it details proper biosecurity measures for disease prevention and control, along with best beekeeping practices.

FISHERIES AND AQUACULTURE

USAID/BHA-supported interventions in aquaculture and fisheries are intended to improve the food security, livelihoods, health, and nutrition of fisherfolk and others who derive secondary benefits from fishing activities. In addition, USAID's experience has shown that well-designed activities can also reform capture fisheries management, reducing threats to biodiversity. USAID/BHA supports ecosystem-based approaches to management in conjunction with improved governance, secure tenure and access to resources, and the application of modern management practices.

Because wild-caught fisheries depend on harvests of natural populations (i.e., resources are “open access”), there are limits to the yields that can be sustainably produced. Yields vary from place to place according to the natural productivity and health of aquatic systems. Yields may also vary seasonally and annually as natural conditions change. In addition, depending on post-harvest handling practices, what is utilized versus what is caught can vary. Global climate change is an additional stressor; its real and potential effects are not fully understood.

Aquaculture has been responsible for introducing exotic and invasive animals, plants, and diseases around the world, often inadvertently through development assistance. Ecosystems have been disrupted by these invasive species or diseases, leading to reduced productivity of natural systems, loss of local livelihoods, and threats to local or even national economies. Many forms of aquaculture are also highly vulnerable to natural disasters. Because of their dependence on water resources, aquaculture farms and hatcheries are often located near rivers and in low-lying coastal areas, making them vulnerable to sudden flooding, coastal storm surges, tsunamis, and sea-level rise. The use of good water and natural resource management practices, along with strong policy, regulation, and oversight can help minimize these and other risks, providing an important alternative source of food and livelihoods.

Finally, fisheries products are the world’s most widely traded foods. Fish is a significant source of protein, essential amino acids, and vitamins in the diet of 2.6 billion people around the globe. In some countries, fish supply more than half of the animal protein in the average diet. In poor and marginalized groups living along coasts and inland waterways, fish is often the staple food.

The following websites and publications provide considerably more detail on the practices and pitfalls of aquaculture and fisheries interventions:

RESOURCES

GENERAL AQUACULTURE AND FISHERIES

- [Sustainable Fisheries and Responsible Aquaculture](#) (USAID, University of Rhode Island): An overview of both aquaculture and capture fisheries, including current needs for management reforms. Additional contributions from biodiversity conservation, economic growth, gender and marginalized groups, and food security and nutrition are also included.

AQUACULTURE

- [Simple Methods for Aquaculture: FAO Training Series on Fish Farming](#) (FAO): 18 in-depth modules on fish farming, from site selection to harvest and marketing.

WILD-CAUGHT FISHERIES

- [FAO Technical Guidelines for Responsible Fisheries No. 6 - Inland Fisheries](#) (FAO): Focuses on inland fisheries governance and policy.
- [Looking to the Sea to Support Development Objectives: A Primer for USAID Staff and Partners](#) (Tetra Tech): Discusses and analyzes small-scale marine fisheries interventions with a focus on humanitarian and environmental considerations and their intersection with marine tenure rights. Intended for USAID staff and IPs.
- [Community Management Yields Positive Impacts for Coastal Fisheries Resources and Biodiversity Conservation](#) (Smallhorn-West et al.): Examines the effectiveness of community-based marine protection areas, where natural resource protection is conducted for the benefit and under the guidance of local communities.

REGIONAL FOCUS

- [Toward Ecosystem-Based Coastal Area and Fisheries Management in the Coral Triangle: Integrated Strategies and Guidance](#) (Coral Triangle Initiative): An overview of ecosystem-based management and a diagnostic tool for use in developing management and governance arrangements for coral reef-based fisheries. The guidance document covers the countries of Indonesia, Malaysia, Papua New Guinea, the Philippines, the Solomon Islands, and Timor-Leste.

FOOD SYSTEMS AND NUTRITION-SENSITIVE AGRICULTURE

The food system is a complex group of actors and activities interwoven into systems and processes that influence nutrition, food, health, and WASH community development and agriculture.¹⁴ Food systems play a critical role in increasing the availability, accessibility, and sustainability of nutrient-rich foods through improved production, increased incomes, and female empowerment. In complex emergencies, it is critical to target the most vulnerable populations, including women and children, with nutritious, affordable, and safe foods. Agriculture is critical to ensuring access to nutrient-rich foods through improved availability of biofortified, nutrient-rich seeds as well as improved technologies and farming methods. It is critical to balance the value of nutritious foods for home consumption and the value of food production and off-farm activities as a source of income.

When possible, we look for opportunities to include nutrient-rich crops and products, such as pulses, legumes, fruits, and vegetables, in RFS design. This expands the availability of nutritious foods and products for home consumption and in the market where the very poor are net consumers. Bridging the gap between agriculture and nutrition will create a global food system that addresses nutritional needs. The following four points are key targets in agriculture interventions that are oriented towards improving food and nutrition security.

However, these approaches should clearly articulate how they respond to climate risks identified by the RFS. Additionally, they would be incorporated into the subject areas delineated above.

- **Nutrient-Rich Commodities:** Agriculture is key to ensuring that nutritious foods are available year-round for home consumption either through production or purchase on the local market. By focusing on crops and animal source foods, people can grow or purchase food that meets their individual household nutrient needs.
- **Labor-Saving Technologies:** Technologies that are targeted at reducing time and labor burdens, especially for pregnant, lactating women and households with children under two years old save time and energy for women to engage in other livelihood activities and care for their families.
- **Diversified Crops/Incomes:** Healthy diets require year-round access to quality, safe nutritious foods. Smoothing income and production throughout the year can help to ensure households have access to diversified foods that are either purchased in the local market or grown at home. In addition, improving storage and reducing production losses play key roles in improving the food environment.

¹⁴USAID (2021). [RFS Food Systems Conceptual Framework](https://www.usaid.gov/feed-the-future/documents/rfs-food-systems-conceptual-framework). Retrieved from: <https://www.usaid.gov/feed-the-future/documents/rfs-food-systems-conceptual-framework>

- **Food Systems or Nutrition-Sensitive Agriculture Indicators:** An integrated program targets the most at-risk households; thus, you can expect to see social behavior change and changes in minimum acceptable diets for children, minimum dietary diversity for women, and reductions in stunting. However, those indicators are long-term. In the shorter term, agriculture programs can improve process indicators and highlight improvements in the food environment, including increased yields of nutrient-rich crops, increased crop diversity, food availability, incomes, and access to improved labor-saving technology for women, as well as improvements in food handling and safety, female empowerment, and food loss methods.

RESOURCES

- [USAID Food Systems Conceptual Framework](#) (USAID): Illustrates how key elements of the Agency’s work come together as part of the food system, particularly agriculture-led economic growth as well as work focused on water, nutrition, and resilience.
- [USAID Advancing Nutrition](#) (USAID): USAID’s flagship multi-sector nutrition project and works with researchers and implementers to build evidence on how food systems can contribute to improved diets and nutrition, particularly for vulnerable populations
- [Food Systems Nutrition-Sensitive Intervention Selection \(NSIS\) Design Tool](#) (ACDI-VOCA): A non-exhaustive list of nutrition interventions that may be applicable to implementers working in agriculture, market systems, and/or food systems development. The NSIS design tool seeks to help users determine which interventions are most relevant and how these interventions can be built into their work. The interventions will address desirability, availability, accessibility, and women’s empowerment within agriculture activities and the food environment.

ECONOMIC RECOVERY AND MARKET SYSTEMS

RESOURCES

FINANCIAL SERVICES

- [Minimum Economic Recovery Standards, Third Edition](#) (The SEEP Network): A Sphere companion; chapter on Financial Services. Useful and relevant even for non-emergency programming.
- [Savings Groups Evidence & Learning Initiative](#) (The SEEP Network): From 2016-2020, the now-closed SEEP Network and FSD Africa partnered to provide a series of learning products focused on the evidence base and applying principles of market systems development to savings groups. Of particular note might be:
 - [A Market Systems Approach to Savings Groups](#)
 - [Understanding the Impact of Savings Groups](#)
 - [An Empirical Risk Assessment of Savings Groups](#)
 - [Evidence, Hope and Hype: A Review of the Literature concerning Commercial Relationships between Savings Groups and Financial Service Providers](#)
 - [Women's Empowerment and Savings Groups: What Do We Know?](#)
 - [Where are the Men? How Male Engagement in Savings Groups Can Contribute to Financial Inclusion and Women's Empowerment](#)
 - [Digital Savings Groups](#)
 - [State of Practice Report: Savings Groups and the Dynamics of Inclusion](#)
- [Addressing Gender Norms to Increase Financial Inclusion: Designing for Impact](#) (Koning et al.): Supports funders and implementers to consider gender norms and better understand how they limit women’s ability to access, use, and benefit from financial services. The guide

also supports the design of financial inclusion initiatives to increase women’s economic empowerment.

NEW LIVELIHOODS DEVELOPMENT

- [Integrating Extremely Poor Producers into Markets Field Guide, Third Edition](#) (Dan Norell, Margie Brand, FHI 360, and World Vision): This field guide and toolkit is highly useful for newcomers to the value chain or market development approach and those looking for practical tools for on-the-ground staff to use.
- [Generating Employment in Poor and Fragile States: Evidence from Labor Market and Entrepreneurship Program](#) (Chris Blattman and Laura Ralston, University of Chicago/NBER/World Bank): From the abstract: “Skills training and microfinance have shown little impact on poverty or stability, especially relative to program cost. In contrast, injections of capital—cash, capital goods, or livestock—seem to stimulate self-employment and raise long-term earning potential, often when partnered with low-cost complementary interventions. Such capital-centric programs, alongside cash-for-work, may be the most effective tools for putting people to work and boosting incomes in poor and fragile states.” The [executive summary](#) and [accompanying blog post](#) may also be worth considering.
- [What Are We Learning from Business Training and Entrepreneurship Evaluations Around the Developing World?](#) (David J. McKenzie and Christopher Woodruff, World Bank): A review of business training programs around the world, finding that over the short amounts of time covered in most program evaluations, “there are relatively modest impacts of training on survivorship of existing firms, but stronger evidence that training programs help prospective owners launch new businesses more quickly.” Additionally, there is some evidence of uptake of new practices and relatively little evidence of the impact on profits and sales.
- Secure Livelihoods Research Consortium publications, www.securelivelihoods.org (Tufts University et al.). In particular:
 - Maxwell, Dan, Dyan Mazurana, et al. “Livelihoods, Conflict and Recovery Findings from the Secure Livelihoods Research Consortium,” June 2017. <https://securelivelihoods.org/publication/livelihoods-conflict-and-recovery-findings-from-the-secure-livelihoods-research-consortium-2/>
 - Mallet, Richard and Adam Pain. “Markets, Conflict and Recovery Findings from the Secure Livelihoods Research Consortium,” June 2017. <https://securelivelihoods.org/publication/markets-conflict-and-recovery-findings-from-the-secure-livelihoods-research-consortium/>

MARKET AND RESPONSE ANALYSIS

This technical area seeks to provide partners with the guidance and resources to conduct market assessments and monitoring, as well as apply that information to support modality decision-making. Market assessments and monitoring are critical components to ensuring that partners have sufficient information and evidence to effectively justify modality selection. This section applies to all sectoral activities that involve assistance that could potentially be delivered via different modalities such as in-kind, vouchers, or cash transfers.

USAID/BHA takes a modality-neutral, partner-driven, and context-specific approach to modality selection. This means that USAID/BHA expects all partners to gather and analyze market data as part of presenting an evidence-based modality justification. Market assessments might involve primary data collection but they could also involve the analysis of existing secondary

data. All partners are encouraged to apply the USG Modality Decision Tool as the basis for how they design market assessments and justify modality selection.

RESOURCES

- [Modality Decision Tool \(MDT\) for Humanitarian Assistance](#) (USG): The MDT provides a modality selection framework requiring partners to justify their selection based on market appropriateness, feasibility, objective, and cost.
- [MDT Nutrition Addendum](#) (USAID): An additional tool for assessing appropriate modalities for Supplemental Nutrition Assistance for specific vulnerable groups.
- USAID Desk Review and Market Study (DRMS - not currently available): As part of any RFSA, USAID will commission a DRMS that will analyze the market structure, conduct, and performance of key food commodities. Documents will be shared through the relevant USAID RFSA website.
- [Comparative Table of Humanitarian Market Analysis Tools](#) (CaLP): The Cash Learning Partnership (CaLP) has a useful summary table of all the relevant market assessment tools and what market dimension each tool examines.
- [Rapid Assessment for Markets \(RAM\)/Market Analysis Guidance \(MAG\)](#) (ICRC): The RAM and MAG are guidance documents developed by the ICRC that provide detailed information on how to conduct market analysis. The RAM is suited for rapid market assessments, while the MAG is a more in-depth analysis.
- [MARKit](#) (CRS): The market monitoring, analysis, and response kit is a multi-sector market monitoring tool that supports partners in establishing a market monitoring system as well as how to use market information to inform program design.

FOOD ASSISTANCE

RESOURCE TRANSFERS & COMMODITY SELECTION AND RATION DESIGN

This technical area seeks to provide partners with guidance to identify the appropriate use of resource transfers to beneficiaries such as in-kind, cash, or voucher transfers. The references in this section include details on how to determine appropriate interventions incorporating resource transfers, the size or amount to be transferred, and the composition of in-kind baskets

RESOURCES

- [MDT for Humanitarian Assistance](#) (USG): The USG MDT is designed as a simple process guidance tool to help assess which type or combination of resource transfers is best suited for a given context based on the risk of market distortion, availability of required infrastructure, activity objectives, and cost considerations.
- [MDT Nutrition Addendum](#) (USAID): The MDT Nutrition Addendum applies a nutrition lens to the selection of appropriate food assistance modalities for the nutritionally vulnerable. Applicants are encouraged to use this addendum alongside the MDT when planning for the development of interventions providing supplemental nutrition assistance to specific vulnerable groups to access adequate and diverse diets.
- [Minimum Expenditure Basket \(MEB\) Decision-Making Tools](#) (CaLP): The CaLP Network developed a set of practical tools for implementers to assist in developing an MEB. While the tools are oriented largely towards response and recovery programming, much of the content can be adapted to transfers in RFSA programming as long as implementers take into consideration the level of need and intent in providing the transfers.

- [Minimum Expenditure Baskets Guidance Note](#) (WFP): This document contains information on how to develop a Minimum Expenditure Basket (MEB), which can be used to identify key household expenditures and the estimated costs to households to meet minimum living standards. This information can then be used in assessing a gap to be filled by assistance based on current income.
- [Commodity Management Toolkit](#) (TOPS): The Commodity Management Toolkit is a one-step operational guide for anyone working on programs using food commodities. It provides staff quick access to the specific information they need on minimum requirements, whenever and wherever they need it.
- [USAID/BHA Specialized Food Table](#) (USAID/BHA): If proposing the use of supplementary foods and/or fortified/blended products, please review this table on the appropriate use of each specialized food commodity on the Title II commodity list.
- [NutVal Calculator](#) (NutVal): NutVal is a spreadsheet application that can be used to estimate the macronutrient, vitamin, and mineral content of a food basket based on commodity composition in grams per person per day. This tool can aid in constructing balanced and healthy in-kind rations.

NUTRITION AND HEALTH

USAID/BHA recognizes that improved utilization of food is critical to achieving food and nutrition security outcomes. With few exceptions, programming addresses food utilization by emphasizing improved child and nutrition outcomes across multiple purposes in a given project. Nutrition programming targets women and children, especially 1,000-day participants. These participants include individuals who are most vulnerable to malnutrition within a given household, including pregnant and lactating women, children under two, and adolescent girls. USAID/BHA also incorporates health programming to address determinants of malnutrition in women of reproductive age and newborn health, where appropriate. Programming addresses individual, social, and structural determinants of malnutrition holistically, offering a multi-sector package of nutrition-sensitive and nutrition-specific interventions.

This chapter seeks to provide a summary of some of the technical best practices for RFSA IPs to take into consideration when designing and implementing nutrition and health activities. This list is not exhaustive and should be considered illustrative only. Applicants are encouraged to consider other relevant resources and to refer to specific RFSA announcements for additional references and details, as applicable.

The chapter is divided into two broad sub-sectors, focusing on nutrition and health across the life course and multi-sectoral nutrition-sensitive considerations. USAID/BHA strongly encourages partners to integrate nutrition across all purposes of the RFSA, although a nutrition-specific nutrition and health purpose is appropriate in most cases. USAID/BHA does not expect partners to include all of the interventions and approaches described below in the summary of best practices. USAID/BHA strongly supports the prioritization of key interventions. Applicants should consider prioritizing key services and behaviors as early as possible in the project design, which will help applicants select from the appropriate interventions. Additionally, applicants are strongly encouraged to demonstrate detailed knowledge of and strong ongoing coordination and linkages with existing national and international health and nutrition partners operating on the ground to ensure maximum synergies and eliminate any duplication of efforts in proposed health and nutrition activities.

NUTRITION AND HEALTH THROUGH THE LIFE COURSE

Nutrition and health across the life course includes best practices and useful documents that address nutrition and health for pregnant women, mothers, and other women of reproductive age, as well as nutrition and health for infants, young children, and adolescents. The list of interventions is largely framed by the [WHO Essential Nutrition Actions Framework](#), which summarizes WHO guidance, to address a broad scope of key interventions to prevent malnutrition in all its forms, at all life stages, and in multiple target groups. In RFSA programming, USAID/BHA emphasizes nutrition interventions targeting the first 1,000 days of life, from pregnancy to a child's second birthday, to reduce infant and child mortality, improve physical and mental growth and development, and improve productivity. The interventions, best practices, and approaches described below primarily concern nutrition-specific programming which addresses the immediate determinants of malnutrition.

GENERAL HEALTH SECTOR INFORMATION

Applicants who would like to propose specific primary health care or health system strengthening, such as health facility staff training and health facility renovation elements or activities, are encouraged to provide substantive justification as to why this is a priority unmet need that they are uniquely able to fill and how this activity will be sustained beyond the life of the RFSA. Towards this end, applicants are encouraged to consider USAID/BHA's health technical guidance provided under [USAID/BHA's emergency application guidelines](#) the [USAID/BHA EAG Annex A](#), especially if the applicant is proposing any renovation and rehabilitation of health facilities including WASH and medical waste management renovations/rehabilitations. Please refer to [USAID/BHA Pharmaceutical Guidance](#) for more information on the procurement of pharmaceuticals and other medical commodities.

USAID/BHA funding does not support routine tuberculosis and HIV/AIDS programming.

MATERNAL NUTRITION AND HEALTH RESOURCES

- [The 1,000-day Window of Opportunity](#) (USAID): The 1,000 days between pregnancy and a child's second birthday is the most critical time to impact a child's cognitive and physical development. The health and well-being of a pregnant and lactating woman is directly connected to the growth and health of her infant. Focusing multi-sector nutrition efforts on evidence-informed interventions targeting this critical window can have lasting implications across the lifecycle. The combination of good health and reduced disease risk for both mothers and their children can also have a powerful, lasting effect on a country's prosperity.
- [MOMENTUM](#): MOMENTUM increases the capacity of partner institutions and local organizations to deliver quality, evidence-based maternal, newborn, and child health services, as well as voluntary family planning, and reproductive health care in USAID partner countries.
- [The Case for Promoting Multiple Vitamin/Mineral Supplements for Women of Reproductive Age in Developing Countries](#) (Huffman et al.): The LINKAGES Project discusses and guides the selection of appropriate supplements for pregnant women and women of reproductive age in developing countries.
- [Maternal Nutrition During Pregnancy and Lactation](#) (CORE Group and LINKAGES): The dietary guide developed by the LINKAGES Project and CORE Group focuses on increased dietary needs during pregnancy and lactation.
- [Food and Care for Women](#) (FAO): The FAO guide 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.

INFANT AND YOUNG CHILD NUTRITION AND HEALTH RESOURCES

- [Infant and Young Child Feeding \(IYCF\)](#) (Global Nutrition Cluster): IYCF is a life-saving intervention. Infants should be breastfed within one hour of birth, breastfed exclusively for the first six months of life, and continue to be breastfed up to two years of age and beyond. Starting at six months, breastfeeding should be combined with safe, age-appropriate feeding of solid, semi-solid, and soft foods.
- [The Baby-Friendly Hospital Initiative \(BFHI\)](#) (WHO): The initiative summarizes the evidence for each of the Ten Steps of BFHI and an updated implementation guidance for countries implementing the BFHI.
- [Protecting, Promoting, and Supporting Breastfeeding in Facilities Providing Maternity and Newborn Services: The Revised Baby-friendly Hospital Initiative \(WHO\)](#): This review further strengthens the evidence supporting Step Four in the updated guidance for BFHI.
- [Breastfeeding Series](#) (The Lancet): This series provides a review of the state of the evidence on the benefits of breastfeeding and a summary of the importance of investing in improving breastfeeding practices and of proven interventions that improve practices.
- [Learning from the Design and Implementation of Large-Scale Programs to Improve IYCF](#) (Baker et al.): This paper summarizes major lessons from Alive & Thrive's work to improve IYCF in three diverse settings: Bangladesh, Ethiopia, and Vietnam.

MANAGEMENT OF WASTING RESOURCES

- [Management of Moderate Acute Malnutrition: Current Knowledge and Practice](#) (Annan et al.): This brief focuses on current principles and approaches to Moderate Acute Malnutrition (MAM) management, highlighting key constraints, gaps in knowledge, and areas still lacking consensus. It is intended to inform ongoing debates among practitioners, national partners, donors, and analysts on what information and evidence on best practices are currently available, where the gaps exist, and priorities for knowledge generation going forward.
- [Preventing MAM Through Nutrition-Specific Interventions](#) (Jimenez and Stone-Jimenez): This technical brief reviews current practice and evidence on nutrition-specific preventive approaches to MAM, providing practical guidance for implementers and program managers, and highlighting gaps in evidence and guidance.
- [MAM Decision Tool](#) (Global Nutrition Cluster): The purpose of the tool is to help practitioners in emergencies decide the most appropriate intervention for the prevention and treatment of MAM.

NEWBORN AND CHILD HEALTH RESOURCES

- [Community Case Management of Childhood Illness](#) (CORE Group): The CORE Group's page on Community Case Management of Childhood Illness has additional resources and tools.
- [MOMENTUM/Barriers and Enablers of IMCI Implementation](#) (MOMENTUM): This desk review by MOMENTUM Country and Global Leadership examines implementation barriers for the Integrated Management of Childhood Illness (IMCI) from a health systems perspective, summarizing common themes in the domains of human resources; medical technologies and supplies; health information systems; leadership and governance; and service delivery.
- [IMCI](#) (WHO and UNICEF): WHO/UNICEF's Guidelines on Integrated Management of Childhood Illness covers methods to prevent and manage the main causes of serious illness and mortality in children.

CARING FOR NEWBORNS AND CHILDREN IN THE COMMUNITY RESOURCES

- [Caring for Newborns and Children in the Community 3-Part Training](#) (WHO and UNICEF): A three-part package for training 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.
- [The Management of At-Risk Mothers and Infants Under 6 Months \(MAMI\) Care Pathway Package](#) (Global Nutrition Cluster and ENN): The Global Nutrition Cluster/ENN released an updated package modeled on an integrated care pathway approach and Integrated Management of Childhood Illness (IMCI), including implementation guidance and resources for adaptation, integration, and linkages across existing neonatal, health and nutrition systems and services.

ADOLESCENT NUTRITION AND HEALTH RESOURCES

- [Adolescent Girls Toolkit](#) (UNICEF): The toolkit contains a collection of learning sessions and tools designed to empower adolescent girls from IDP, refugee, and host communities to address key issues on life skills, reproductive health, GBV, and financial education.
- [Health for the World's Adolescents: a Second Chance in the Second Decade](#) (WHO): A report on the progress made between 1989 and 2011 in adolescent health, including the current WHO recommendations on policies and programs that respond to priority health programs during adolescence.
- [Adolescent Nutrition Series](#) (The Lancet): This series highlights the effect of nutrition on adolescent growth and development, the role the food environment has on food choices, and which strategies and interventions might lead to healthy adolescent nutrition and growth.
- [Global Standards for Quality Health-Care Services for Adolescents](#) (WHO): This document produced by WHO serves as a guide to implementing a standards-driven approach to improve the quality of health care services for adolescents.

NUTRITION AND HEALTH OF WOMEN OF REPRODUCTIVE AGE (INCLUDING RH AND FP) RESOURCES

- [Desk Review of Programs Integrating Family Planning with Food Security and Nutrition](#) (FANTA): FANTA conducted a desk review of family planning integration to identify and synthesize programmatic experiences, including integration models, platforms, contact points, and providers used for integrated service delivery. This report synthesizes learnings from 102 health and multisectoral programs.
- [Minimum Initial Service Package for Sexual and Reproductive Health \(SRH\) in Crisis Situations](#) (UNFPA): A series of crucial, lifesaving activities required to respond to the SRH needs of affected populations at the onset of a humanitarian crisis.
- [Improving Nutrition and Food Security Through Family Planning](#) (PRB): This video raises awareness and understanding among decision-makers about how family planning can help improve key measures of nutrition for mothers, infants, and children, as well as improve food security on a broader scale. The video serves as a means to start a critical policy dialogue to encourage the integration of family planning into nutrition and food security policies, strategies, action plans, and programs.
- [Impacts of Family Planning on Nutrition and Food Security](#) (Health Policy Project): In 2014, the USAID-funded Health Policy Project conducted two reviews of the empirical evidence on the impacts of one intervention—family planning—on food security and nutritional status.

CROSS-CUTTING RESOURCES

- [Care Groups: A Training Manual for Program Design and Implementation](#) (TOPS): Under the TOPS program, the Care Group manual was developed as a training resource for designing, training, implementing, and monitoring Care Group programs.
- [Getting the Knack of NACS](#) and [Defining NACS](#) (FANTA): Nutrition Assessment Counseling and Support (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 the nutrition components of clinical services and fosters linkages between clinical facilities and community programs.
- [Strengthening Health Systems: Key FANTA Achievements and Lessons Learned](#) (FANTA): This brief summarizes FANTA's work from 2012 to 2018 supporting six core functions: strengthening the nutrition workforce, providing financial support for essential nutrition services, strengthening the capacity of civil society to advocate for increased government transparency and accountability, supporting improvements in integrated health information systems, strengthening supply chain components, and scaling up quality, coordinated delivery of evidence-based nutrition services.
- For other cross-cutting programming considerations relevant to health and nutrition please refer to guidance on Social and Behavior Change, Gender and Age, and all other relevant cross-cutting elements under Chapter III: Overall Program Quality.

MULTI-SECTORAL NUTRITION-SENSITIVE INTERVENTIONS

Nutrition-sensitive programming is typically reflected in other sectors, including, early child development, WASH, agriculture, livelihoods, food systems, and markets. The food systems and markets section includes additional considerations for food assistance programming.

FOOD ASSISTANCE, MARKETS, AND NUTRITION RESOURCES

- [Modality Decision Tool: Nutrition Addendum](#) (USAID): This user-friendly tool aids IPs in applying a nutrition lens to the selection of appropriate food assistance modalities for the nutritionally vulnerable. Note: USAID/BHA no longer utilizes the prevention of malnutrition in children under two approach (PM2A).
- [A Review of Recent Initiatives Improving the Nutritional Quality of Foods Used in Emergency and Development Programming](#) (Webb et al.): This article reviews progress since 2011 in developing food aid products in emergency and non-emergency contexts. It highlights important modifications and additions made to products.
- [FAQR Phase III: Food Basket Report](#) (FAQR): This report highlights improvements to the USAID/FFP Food Basket including product upgrades, innovations, and processes for modifying the food basket, as well as communications with partners.
- [Food Assistance for Nutrition Evidence Summit 2018. Tools and Resources Roundtable Booklet](#) (FAQR): The USAID FAQR Food Assistance For Nutrition Evidence Summit held in June 2018 produced a booklet containing the tools and resources presented during the event.
- [Effect of Lipid-Based Nutrient Supplementation on Infants and Young Children](#) (Das et al.): This Cochrane review of 17 studies in 12 countries published in May 2019 describes and evaluates studies on the use of LNS with complementary feeding, finding evidence that it is probably an effective intervention, although the quality of evidence is low or moderate.
- [NutVal 4.1](#): NutVal is a spreadsheet application for planning and monitoring the nutritional content of food assistance. Nutval has a diverse database of commodities and products and population sub-groups to use for assessing the adequacy of food assistance.

GENDER AND NUTRITION RESOURCES

- [Gender Considerations for Achieving Nutrition Outcomes Through Agriculture](#) (USAID): This brief proposes that addressing gender within agriculture can help sustainably achieve both agricultural and nutritional outcomes.
- [Introductory Workshop on Integrating Gender and Nutrition Within Agricultural Extension Services: Facilitator's Guide](#) (INGENAES): A workshop developed by the Integrating Gender and Nutrition within Extension and Advisory Services (INGENAES) Project.
- [Gender and Commodity Management: A Field Guide](#) (TOPS): This guide produced through the TOPS Program, outlines good practices that commodity managers and their staff can use to support people's rights to food commodities that are not hindered by gender norms that marginalize or exclude any group.

WASH, NUTRITION, AND HEALTH RESOURCES

- [Essential Nutrition Actions \(ENA\) and Essential Hygiene Actions \(EHA\) Framework](#) (CORE Group): A tool for advocacy, planning, training, and delivery of an integrated package of interventions to reach the greater than 90 percent coverage needed to achieve public health impact. As such, partners are now promoting the framework to support the realization of Scaling Up Nutrition (SUN) objectives on the ground. The updated ENA-EHA training builds on the ENA 2010 Training Trilogy, keeping the overall format of the materials.
- [Improving Nutrition Outcomes with Better WASH: Practical Solutions for Policies and Programs](#) (WHO, UNICEF, and USAID): Summarizes the benefits of WASH on improving nutrition outcomes, provides practical guidance for integrated programs, and summarizes WASH indicators relevant to nutrition. Case studies of ongoing WASH-nutrition programs are provided.
- [Webinar: EED, WASH, and Nutritional Status of Women, Infants, and Young Children - Recording](#) (Feed the Future): Environmental enteric dysfunction (EED) is linked to malabsorption of nutrients, caused by poor WASH conditions, and thus implicated in increasing the risk of stunting and wasting in early life and poor birth prognosis in pregnancy.
- [WASH, Nutrition and Child Growth: Webinar Series for Implementing Partners & Resource Guide on WASH, Nutrition, and Child Health](#) (PRO-WASH, WASHPaLS, Clean, Fed, and Nurtured Coalition): A three-part webinar series and accompanying Resource Guide including links, evidence, and promising interventions to prevent EED and promote child nutrition.
- [Position Paper: Implications of Recent WASH and Nutrition Studies for WASH Policy and Practice](#) (WHO): This position paper summarizes recent studies, contextualizes findings, and describes implications for future WASH investments.
- [WASH and Its Links to Nutrition Technical Brief](#) (USAID): The technical brief summarizes the evidence linking WASH and nutrition, guides how WASH can have a greater impact on nutrition outcomes, and provides recommendations for USAID WASH programming.
- [The Implications of Three Major New Trials for the Effect of Water, Sanitation, and Hygiene on Childhood Diarrhea and Stunting: A Consensus Statement](#) (Cumming et al.): Five key messages from the WASH-Benefits Bangladesh, the WASH-Benefits Kenya, and the Sanitation Hygiene Infant Nutrition Efficacy trials.

AGRICULTURE, LIVELIHOODS, AND NUTRITION RESOURCES

Livestock play an integral role in sustaining nutrition for vulnerable people, especially children. Recent studies have shown that if development programs focus strategically on supplementing livestock nutrition, particularly during dry seasons, this can directly result in decreasing malnutrition for children and pregnant and lactating women in a cost-effective manner.

- [Milk Matters](#) (Sadler et al.): The Milk Matters project report provides evidence-based information to guide nutritional interventions targeting support to milking animals that stay close to women and children during the dry season and/or drought. These interventions, if timed correctly, can provide cost-effective solutions to milk production, increasing milk consumption amongst children, and subsequently improving children's nutritional status.
- [Role of Livestock in Human Nutrition and Health for Poverty Reduction](#) (Randolph et al.): This paper highlights linkages between livestock keeping and human health, and provides an understanding of how livestock can contribute to poverty reduction.
- [Nutrition in Africa's Drylands Initiative](#) (Tufts University): This brief provides updates to the conceptual framework of the drivers of acute malnutrition in the drylands of Africa, emphasizing the interlinkages between environment and seasonality, systems and institutions, and livelihood systems.
- [Working with Smallholders: A Handbook for Firms Building Sustainable Supply Chains](#) (IFC): This handbook compiles lessons learned from program implementation and highlights leading trends and technologies relevant to the work with the smallholders.
- [SAVE FOOD: Global Initiative on Food Loss and Waste Reduction](#) (FAO, IFAD, WFP): The SAVE FOOD initiative has a community practice platform containing the latest publications on the prevention of post-harvest food loss and waste.
- [Understanding the Impact of Savings Groups Learning Brief](#) (SEEP and FSD Africa): This resource from SEEP and Financial Sector Deepening (FSD) Africa is a systematic review of the evidence on how participation in savings groups impacts members and their households.
- [Household Decision-Making Toolkit](#) (IFAD): This guide discusses and provides options to support inclusive and gender-sensitive household decision-making for improved livelihoods and food security.
- [Accelerating Behavior Change - Nutrition-Sensitive Agriculture](#) (SPRING): This online training provides a one-to-two-day course for people who design and implement agriculture projects, including those focused on food security, livelihoods, value chains, and/or broader agricultural market development.
- [How To Do Note - Integrated Homestead Food Production](#) (IFAD): This resource provides an overview of approaches and a step-by-step guide to homestead food production activities.
- [Aflatoxins - Finding Solutions for Improved Food Safety](#) (IFPRI): This compilation of 19 concise briefs covers a variety of contexts, experiences, and tools under topic headings of health, markets, policy, and technology.

NURTURING CARE FOR EARLY DEVELOPMENT RESOURCES

- [Nurturing Care for Early Childhood Development: a Framework for Helping Children Survive and Thrive to Transform Health and Human Potential](#) (WHO, World Bank, and UNICEF): The Framework is a roadmap for action, which builds on evidence-based research on early childhood development and how to have a positive effect on that development through both policies and interventions.
- [Nurturing Care for Early Childhood Development](#) (WHO, World Bank, and UNICEF): A website hosted by the Early Childhood Development Action Network, a partnership of WHO, World Bank, and UNICEF that advocates for higher prioritization of and investment in essential, quality ECD services; facilitates knowledge exchange and learning; and connects and aligns with global and regional partners and networks across sectors.
- [The Thrive Act](#) (USG): Approved by Congress in 2021, calls on USAID to lead on the integration of ECD into its development and emergency activities. The Thrive Coalition came together to successfully advocate for the development of the Thrive Act and maintains [a website](#) that makes the case for ECD investments.

- [Clean, Fed, and Nurtured](#): The Clean, Fed, and Nurtured Coalition has several foundational documents to assist practitioners and researchers in increasing coordination between WASH, MNCH, nutrition, and ECD programming to improve young child well-being.
- [Supplementing Nutrition in the Early Years: The Role of Early Childhood Stimulation to Maximize Nutritional Inputs](#) (World Bank): Provides evidence on the role that simple early childhood stimulation inputs can play when they accompany nutrition inputs, and how the joint intervention is crucial to the development of young children.
- [Advantages and Challenges of Integration: Opportunities for Integrating Early Childhood Development and Nutrition Programming](#) (DiGirolamo et al.): A growing body of evidence supports the notion that integrated programs addressing nutrition and stimulation provide stronger impacts on nutritional and developmental outcomes than either intervention alone.
- [Advancing ECD: From Science to Scale](#) (The Lancet): This series considers new scientific evidence for interventions and proposes pathways for implementation of early childhood development at scale. The series emphasizes 'nurturing care', especially of children ages three years and younger, and multi-sectoral interventions.

WASH

WASH interventions in USAID/BHA programs target certain underlying causes of malnutrition, such as health and nutritional deficits resulting from inadequate access to WASH services and exposure to fecal-contaminated environments. WASH interventions decrease the fecal-oral route of disease transmission and improve environmental health conditions, improving utilization of essential nutrients and broader health outcomes. In addition, improved and safely managed water access ensures a hygienic living environment, secures livelihood, and impacts a child's ability to thrive. Applicants are encouraged to use a package of WASH interventions that is evidence-based and reflects an understanding of both impact and sustainability. This package often includes but is not limited to, increasing demand for and access to safe water supply and sanitation services, increasing adoption of key hygiene behaviors, and strengthening WASH governance and the enabling environment at the community or local level.

The evidence shows that nutritional gains often require affecting whole-of-community WASH practices, so core approaches should be designed to impact WASH at both the household and community levels. A primary challenge for applicants working with highly vulnerable, underserved populations is to identify demand-driven, self-sustaining approaches that do not rely completely on outside resources for impact and sustainability. USAID/BHA strongly encourages integrated WASH, health, and nutrition programming and requires that any proposed drinking water and sanitation infrastructure investment be accompanied by hygiene promotion activities or build upon an existing hygiene program.

RESOURCES

- [PRO-WASH](#) and [WASHPlus](#) are USAID-funded programs dedicated to multi-country WASH interventions and the development and advancement of WASH research, learning, and best practices. Pertinent materials for USAID IPs include:
 - [Nutrition Sensitive WASH programming](#)
 - [Global Food Security and the Critical Role of WASH](#)
 - [WASH: Essential Component for Food Security](#)
 - [Small Doable Actions for WASH Behavior Change](#)
 - [Market-Based Sanitation Solutions](#)
 - [Technical Guide on Drinking Water Quality Monitoring](#)

- [The Water and Sanitation Program](#) (World Bank): This program is part of the World Bank Group's Water Global Practice and focuses on best practice and capacity building across [six core topics](#) including topics relevant to USAID/BHA such as scaling up rural sanitation and hygiene and domestic private sector participation, and water and sanitation service delivery in fragile states.
- [Sanitation and Water for All \(SWA\)](#): A global WASH partnership of governments, private sector, and civil society groups, external support agencies, research and learning partners, and 44 other WASH sector partners. Partners who join SWA agree to adhere to the SWA Guiding Principles and dedicate themselves to three core issues: increasing political prioritization for WASH, promoting the development of a strong WASH evidence base, and strengthening national government-led planning processes.
- [The UN-Water Global Analysis and Assessment of Sanitation and Drinking Water \(GLAAS\)](#) (WHO): This program, implemented by WHO, monitors financial and human resource inputs, as well as the enabling environment, including laws, policies, and monitoring, around WASH systems and services. The [2019 GLAAS Report](#) highlights gaps and vulnerabilities in WASH systems and the need to strengthen governance and financial management systems to improve WASH service delivery.
- The U.S. Centers for Disease Control's (CDC) [Safe Water System](#) provides information resources dedicated to WASH interventions for low-income countries. CDC serves as a research partner to many development interventions linking water quality and public health. The Safe Water System website provides links to resources and case studies on topics, including behavior change, safe water storage, and hand washing.
- [Sustaining Water Sanitation and Hygiene Outcomes](#) (Water CKM): This report, a consolidation of six independent ex-post evaluations, assesses the sustainability of closed projects three to 10 years after closure.

LINKING WASH AND NUTRITION

To decrease chronic malnutrition, which can lead to stunting, USAID/BHA programs must address food utilization and the ability of the body to absorb and use nutrients for both linear physical and cognitive growth. Current research and evidence-based studies have linked poor WASH practices to growth faltering and other detrimental nutrition and health outcomes.

Poor hygiene is a risk factor for poor early childhood development. Moreover, unsafe WASH practices are correlated with stunting and anemia, known risk factors for child developmental deficits.¹⁵ It was observed that children from contaminated households (i.e. E. coli concentration >10 cfu/100 mL, inadequate sanitation, and unhygienic handwashing) were stunted (-0.54 height-for-age z scores, HAZ). This evidence shows that environmental contamination causes growth faltering.¹⁶ Three biological mechanisms linking WASH and undernutrition have been investigated in the literature. These are repeated bouts of diarrhea, soil-transmitted helminth infections, and subclinical gut infections (i.e. EED), which may be a key mediating pathway linking poor hygiene to developmental deficits.¹⁷ WASH may impact early childhood development (i.e. inflammation, stunting, anemia) via the three key vectors of fecal-oral transmission for young children—soil, poultry feces, and infant food—which are not often

¹⁵ Ngure GM, Reid BM et al. 2014. WASH, EE, nutrition and ECD: making the links. Ann. N.Y. Acad. Sci, 1308: 118-128

¹⁶ A Lin, BF Arnold, et al. 2013. Household Environmental Conditions are Associated with Enteropathy and Impaired Growth in Rural Bangladesh. Am J Trop Med Hyg 89(1): 130-137

¹⁷ O Cumming and S Cairncross. 2016. Can WASH help eliminate stunting? Current evidence and policy implications. Matern Child Nutr 12 Suppl 1:91-105

addressed in WASH interventions.¹⁸ Associations have also been observed between decreased child stunting and household access to improved sanitation (i.e. access to toilet facility), household access to an improved drinking water source, and mother/caregiver reporting of washing hands with soap before a meal or after defecation.¹⁹ The conventional WASH approach may not be sufficient to address zoonotic pathways. Applicants are encouraged to apply a One Health approach which takes a multi-sector approach to addressing challenges with animal presence in the household and human and animal interactions through direct and indirect means.

RESOURCES

- [WASH & Nutrition Implementation Brief](#) (USAID): This brief has three key messages: (1) positive nutritional outcomes are dependent upon WASH interventions and nutrition actions; (2) poor WASH conditions create an additional burden of undernutrition; and (3) many opportunities for co-programming WASH in nutrition programs exist.
- [WASH and Its Links to Nutrition](#) (USAID): This technical brief provides summary evidence and guidance on approaches to WASH that are likely to have a greater impact on nutrition outcomes. It states that minimal or no WASH practices may lead to frequent diarrhea episodes, intense enteric infections, poor gut health, and increase the economic cost and time spent accessing health services.
- [Nutrition-Sensitive Water Supply and Hygiene](#) (World Bank): This document provides guidance on designing a multi-sector approach to nutrition-sensitive WASH programming. It also addresses reasons for limitations found in conventional WASH interventions.
- [Animal Influence on WASH Measures for Zoonosis Control](#) (Matilla et al.): This study shows the link between humans and animals at the household level and how proximate living can impact WASH interventions. It proves that conventional WASH interventions are not sufficient in isolating and addressing zoonotic diseases, but that a holistic One Health approach may be required to address challenges in zoonotic pathogen pathways.
- [Baby WASH Programming: Integrating Water, Sanitation, and Hygiene Interventions Across Sectors to Impact Child Health Outcomes](#) (UNICEF): This document highlights the potential impact of Baby WASH and illustrates simple entry points and possible approaches to programming in Eastern and Southern Africa.
- [BabyWASH and the 1,000 Days: A Practical Package for Stunting Reduction](#) (Action Against Hunger): Presents Action Against Hunger's vision of eradicating hunger and undernutrition in all its forms—in particular stunting—through the Baby WASH approach including ways to integrate WASH, nutrition, and health sectors in the first 1,000 days to prevent stunting.

DRINKING WATER ACCESS, SERVICE DELIVERY, AND GOVERNANCE

Expanding access to safe drinking water at the household and community levels can improve health and nutritional outcomes and provide tangential benefits (e.g. reducing women's workload and increasing time for children's schooling). This sub-sector presents resources for designing impactful and sustainable water supply interventions that meet the indicator definition for basic drinking water access. Many technology solutions focus on providing safe drinking water only for human consumption and domestic activities. USAID/BHA development funds may

¹⁸ WSP, 2014, Improved Sanitation Can Make Children Taller and Smarter in Rural Tanzania; available:

<https://www.wsp.org/sites/wsp.org/files/publications/WSP-Tanzania-Stunting-Research-Brief.pdf>

¹⁹ Rah, JH AA Cronin, et al. 2015. Household sanitation and personal hygiene practices are associated with child stunting in rural India: a cross-sectional analysis of surveys. *BMJ Open* 5(2): e005180

also be used for safe and environmentally sensitive multi-use water supply (MUS) systems²⁰ that meet the needs of productive activities, such as agriculture, livestock watering, or other livelihood activities. As water demand and water scarcity issues are increasing due to population increase and climate change, USAID/BHA encourages more emphasis on climate resilience WASH and energy-efficient WASH technologies. Hygiene promotion must accompany all water supply investments because of the broader importance of fecal-oral disease transmission on nutrition and health. Applicants must also follow regional or national engineering design and construction standards and codes for infrastructure development activities. Where regional or national codes are not available, international norms and standards must be followed. A particular challenge for USAID/BHA IPs and beneficiaries is sustaining service delivery of safe drinking water supplies after the completion of the project. Below are resources and case studies highlighting common failures and best practices for sustainable and climate-resilient rural water supplies.

HARDWARE AND CONSTRUCTION RESOURCES

- [Stop the Rot: Handpump Functionality, Corrosion, Component Quality and Supply Chains](#) (RWSN): Consists of three reports documenting the scale and extent of rapid handpump corrosion and the use of poor-quality handpump components in sub-Saharan Africa while trying to bring about actions to address these problems.
- [Solar Pumping for Water Supply: Harnessing Solar Power in Humanitarian and Development Contexts](#) (Llario and Kiprono): Equips engineers and technicians with the requisite knowledge needed for the design, implementation, and operation of sustainable solar-powered water supply systems.

MULTIPLE-USE WATER SERVICES RESOURCES

- [Multiple-Use Water Services Group](#): A website that collects evidence, tools, and best practices from around the world related to MUS. Currently contains more than 200 case studies from more than 30 countries and also features guidelines, advocacy materials, and a toolkit for implementing MUS.
- [Multiple-Use Water Services: Toward a Nutrition-Sensitive Approach](#) (SPRING): A review of MUS in nutrition programs, including a failure analysis of program elements.
- [Multi-Use Water Systems in Food Security Programs: A Summary of Key Issues Impacting Sustainability and Resilience](#) (PRO-WASH and SCALE): SCALE and PRO-WASH have worked with RFSAs and sector experts to understand some of the key issues that impact MUS sustainability. This work included an open, online survey disseminated through several channels, which resulted in 42 responses from RFSAs and MUS experts in countries around the world.
- [Guidelines for Community-led Multiple Use Water Services: Evidence from Rural South Africa](#) (IWMI): Presents lessons learned in implementing community-led MUS and compares the timelines and costs to more conventional water infrastructure designs and constructions.

WATER SUPPLY SERVICE DELIVERY AND GOVERNANCE RESOURCES

- [USAID Water and Development Series](#) (USAID): A set of technical briefs that provide guidance on important topics for developing and implementing water and sanitation activities in support of the USG Global Water Strategy, which includes USAID's agency plan. Relevant

²⁰ Adank, M., van Koppen, B. and Smits, S., 2012. Guidelines for Planning and Providing Multiple-Use Water Services. [online] IRC International Water and Sanitation Centre and International Water Management Institute. Available at: <http://www.musgroup.net>.

topics include: [Rural Water Services](#), [Financing Water and Sanitation Services](#), [Water Security, Sanitation and Hygiene Governance](#), and [Humanitarian-Development Coherence in WASH or WRM Programs](#).

- [Public-Private-Partnership in Infrastructure Resource Center](#) (World Bank): A sector review of PPPs and private service provider (PSP) contracts for ensuring management and O&M of rural water projects in Sub-Saharan Africa. Case studies from Benin, Mali, Niger, Uganda, and Kenya are reviewed.
- [Sustainable Water Partnership: Final Report](#) (USAID and SWP): This report presents the work that the Sustainable Water Partnership has achieved during its 5+ years implementation period from 2016 to 2022 and proposes lessons learned and recommendations for water security programming, as well as technical briefs from its pilot studies.
- [Applying WASH Systems Approaches in Fragile Contexts](#) (Tillet et al.): A discussion paper on applying WASH systems approaches in fragile contexts while integrating aspects of resilience into systems thinking.
- [Professionalized Maintenance for Rural Water Service Provision: Toward a Common Language and Vision](#) (SWS): This brief presents “professionalized maintenance” as a common umbrella term for improved maintenance of rural water services and outlines 10 characteristics of a professionalized service.
- [USAID LOWLAND WASH: Engineering Design Guidelines for Rural Water Supply Systems](#) (USAID and FSN Network): Engineering Design Guidelines for Rural Water Supply Systems. This resource complements the Lowland WASH Construction Quality Control Plan by providing key concepts, guiding principles, and specific steps for engineering design for the construction or rehabilitation of rural water supply systems. These engineering design guidelines have been compiled from field experience and have also been discussed with the regional governments in Afar, SNNP, and Somali.

CLIMATE-RESILIENT WASH RESOURCES

- [UNICEF Guidance Note \(Climate Resilient WASH\): How UNICEF Regional and Country Offices Can Shift to Climate Resilient WASH Programming](#) (UNICEF): A guidance note intended to be used for programming in all contexts—including protracted conflicts, fragile or humanitarian settings, and development contexts—by providing guidance for the design and implementation of programs grounded in a comprehensive understanding of climate risks
- [Disaster Risk Reduction and WASH Comprehensive Guidance](#) (Global WASH Cluster): This document provides guidance on the integration of DRR into WASH during emergency response, early recovery, and planning for disasters through the development phase to mitigation and preparedness.

SANITATION: BEHAVIOR CHANGE AND FACILITATING ACCESS

Poor sanitation in middle- to low-income countries strongly relates to high malnutrition rates, death of children ages five years and younger, and large wealth disparities. Moreover, recent studies have shown a correlation between reduced stunting and total sanitation coverage. Based on the evidence and considering impact and sustainability, the sanitation sub-sector focuses on community-led and facilitative approaches to change sanitation behaviors and increase access. Improving community sanitation should focus on demand-driven and affordable whole-of-community sanitation solutions that allow communities to move up the sanitation ladder through promotional marketing efforts and community-led financial investments. This section provides resources for the design and implementation of facilitative sanitation activities and references on the benefits of these activities.

RESOURCES

- [USAID Social and Behavior Change for Water Security, Sanitation, and Hygiene Brief](#) (USAID): This technical brief provides guidance on developing effective, evidence-based SBC programming to achieve water security, sanitation, and hygiene development objectives. It lays out the process for developing SBC programs in support of WASH and WRM objectives and provides examples of country implementation and key considerations applicable to both WASH and WRM.
- [Water Security, Sanitation, and Hygiene at USAID](#) (USAID): This factsheet highlights that investments in water security, sanitation, and hygiene are critical for progress in nearly all aspects of global development.
- [USAID Water and Development Technical Series: Rural Sanitation](#) (USAID): Provides an overview of the important factors to consider in USAID rural sanitation programming. Drawing upon the latest evidence, it provides guidance for developing and implementing rural sanitation activities.
- [Sanitation Marketing Toolkit](#) (World Bank): Serves as an interactive dashboard for practitioners and program managers of sanitation marketing campaigns.
- [Considerations for Building and Modifying Latrines for Access](#) (WASHPlus): A technical guide on latrine construction that also provides pictorial options to support the modification of latrines to enhance accessibility for the elderly, people with disabilities, illness, or limited mobility. The guide also provides a checklist of minimum standards for school sanitation and hygiene facilities.
- [Water Engineering and Development Center Knowledge Database \(WEDC\)](#) (Loughborough University): Provides technical WASH guidance on a range of topics, including [Latrine Pit Design](#), [Latrine Slab Engineering](#), [Selecting WASH Indicators](#), [Managing Hygiene promotion in WASH Programs](#), [Introduction to Water Safety Plans](#), and [Preventing Transmission of Fecal-Oral Disease](#).
- [Center for Affordable Water & Sanitation Technology \(CAWST\)](#): Provides technical WASH services to implementers, and includes resources on a variety of WASH topics, such as [Arbolloo Latrines](#), [Low-Cost Sanitation Manual](#), [Aqua-Privy Latrines](#), [Biogas Latrines](#), and [Composting Latrines](#).

HYGIENE PROMOTION AND BEHAVIOR CHANGE

The hygiene promotion sub-sector focuses on interventions that promote and increase the uptake of key hygiene practices, including handwashing with soap at critical times, safe disposal and management of excreta, and safe storage and treatment of drinking water. These key hygiene practices have a demonstrated effect on health and nutritional outcomes and have been broadly proven to reduce diarrheal rates by 30-40 percent.^{21, 22, 23} These three hygiene practices are not the only pathways for fecal-oral disease transmission, which can stem from broader zoonotic, environmental, and/or food hygiene behaviors. Additional hygiene pathways that can impact health and nutrition include children's interaction and ingestion of animal fecal material, especially in the case of free-range livestock and contaminated soils; food hygiene practices; and vector transmission of fecal material and pathogens. However, the impact of

²¹ Solomon, E.T., Gari, S.R., Kloos, H. et al. Handwashing effect on diarrheal incidence in children under 5 years old in rural eastern Ethiopia: a cluster randomized controlled trial. *Trop Med Health* 49, 26 (2021)

²² Curtis and Cairncross. (2003). Effect of washing hands with soap on diarrhea risk in the community: a systematic review. *The Lancet* 3: 275 - 281.

²³ Fewtrell et al. (2005). WASH interventions to reduce diarrhea in less developed countries: a systematic review and metaanalysis. *The Lancet Infectious Diseases*, 5(1):42-52.

these pathways on nutritional status is still being studied. Core approaches for hygiene promotion include multifaceted behavior change strategies, including training, communication, community mobilization, and equitable access to hygiene products and services such as hand washing stations, water treatment products, latrines, and menstrual hygiene products. Applicants should also demonstrate the ability to pivot activities requiring emergency interventions during high prevalence of acute water diarrhea and COVID. This section provides references on the benefits of hygiene improvements, as well as resources for the design and implementation of interventions.

RESOURCES

- [Global Handwashing Partnership: The Hand Washing Handbook](#) (GHP): Provides resources and tools needed to strengthen local systems to support handwashing and to plan and implement successful handwashing behavior change programs in a variety of contexts.
- [‘How to’ Brief: Communicating for Hand Hygiene during COVID-19](#) (GHP): Provides suggestions for crisis planning and risk communication related to hand hygiene and related issues for COVID-19, without covering basic social and behavior change principles.
- [State of World’s Hand Hygiene](#) (UNICEF and WHO): Brings together various data sets to present the current status of hand hygiene while calling governments and supporting agencies to action.
- [Toward a Hygienic Environment for Infants and Young Children: A Review of the Literature](#) (USAID): A review of the scientific and gray literature, complemented by dozens of key informant interviews with researchers and field implementers, to synthesize the latest understanding of key pathways of fecal microbe ingestion by IYC and their links to diarrhea, EED, and poor nutrition, and development outcomes.
- [Handwashing Compendium for Low Resource Settings: A Living Document](#) (Institute of Development Studies): A living document bringing information from different organizations into one place for guidance, local examples, resources on accessible, low-cost handwashing facilities, and environmental and physically distanced hygiene promotion.

MENSTRUAL HYGIENE AND COVID-19

RESOURCES

- [Menstrual Hygiene Matters](#) (WaterAid): Reviews the existing need for menstrual hygiene matters (MHM) as an integrated component of any WASH program, cultural and practical challenges associated with MHM, and the benefits of integrated MHM programming on education, health, social inclusion, and psychological well-being.
- [UNICEF Guidance on Menstrual Health and Hygiene](#) (UNICEF): Focuses on the process of designing and supporting programs from the vantage point of UNICEF rather than detailed technical notes and descriptions on menstrual health and hygiene programs.
- [Pivotal not Peripheral: Ending Period Poverty by Prioritizing Menstrual Health and Hygiene in WASH](#) (Water for Women): Covers why period poverty needs to end, the benefits of improved menstrual health and hygiene (MHH), why MHH in WASH matters, periods in a pandemic, Water for Women MHH initiatives, key lessons learned, and provides an MHH checklist for WASH practitioners.
- [Mitigating the Impacts of COVID-19 on Menstrual Health and Hygiene](#) (UNICEF): Aims to help actors anticipate and mitigate the secondary impacts of the COVID-19 pandemic on girls’ and women’s ability to manage their menstruation.
- [What Have We Learned About Promoting Hand Hygiene During the COVID-19 Pandemic?](#) (HygieneHub): A brief focused on hand hygiene promotion during the COVID-19 pandemic.

- [USAID Implementation Plan for the U.S. COVID-19 Global Response and Recovery Framework](#) (USAID): This is intended to serve as a guide and reference for USAID missions and external partners, providing a comprehensive overview of how USAID is executing its role and responsibilities under the USG's July 2021 Global Response and Recovery Framework.

WATER QUALITY: CENTRALIZED AND HOUSEHOLD WATER TREATMENT

The WHO/Joint Monitoring Program definition of 'basic' or 'safely managed' drinking water is drinking water protected from outside contamination, in particular contamination with fecal matter. Under USAID Environmental Compliance Procedures (22 CFR 216), any drinking water infrastructure investment must be accompanied by a water quality assurance plan (WQAP), including water source protection, monitoring of water quality data, and governance of water service delivery. For IPs not working on drinking water access in communities, household water treatment (HWT) or point of use (POU) interventions can serve as an interim solution to reduce diseases linked to poor water quality. However, HWT does not count towards MDG/SDG water targets or indicator definitions for 'basic' or 'safely managed' drinking water access.

Among all HWT technologies, reductions in diarrheal disease owed to HWT intervention studies are often in the range of 15 to 50 percent.²⁴ A review of the efficacy of POU technologies—boiling, chlorination, flocculation, filtration, or solar disinfection— found that disinfection products reduced diarrhea rates by a quarter, filtration systems by half, and solar water disinfection by a third. HWT requires substantial education and behavior change to ensure correct and consistent use and it is not universally effective against all classes of waterborne pathogens (e.g. free chlorination is ineffective against *Cryptosporidium*). HWT should serve as a temporary disease-prevention measure until a sustainable model for more effective household or community water-treatment technologies can be put in place.

RESOURCES

- [Household Water Treatment and Safe Storage](#) (CAWST): Provides an overview of household water treatment and safe storage methods and technologies using detailed fact sheets. The fact sheets report on the relative effectiveness of the removal of bacteria, viruses, protozoa, helminths, and turbidity, as well as provide cost estimates and operating criteria. Specific fact sheets are provided for [Biosand Filters](#), [Ceramic Candles](#), [Straining](#), [Membrane Filters](#), [Chemical Coagulants](#), and [Natural Coagulants](#).
- [Guidelines for Drinking-Water Quality](#) (WHO): Provides an authoritative basis for the setting of national regulations and standards for water safety in support of public health.
- [Technical Guide on Drinking Water Quality Monitoring](#) (USAID, UNC, ProWASH): A guide that aims to support RFSAs to develop and implement a water quality monitoring program consistent with USAID's WQAP.
- [Water Quality Assurance Plans](#) (USAID): WQAP are the preferred method for ensuring water quality in projects involving the provision of drinking water. USAID recommends that new Initial Environmental Examinations for drinking water provisioning activities require IPs to develop, implement, and report on a WQAP.

²⁴ Clasen T, Schmidt WP, Rabie T, Roberts I, Cairncross S. Interventions to improve water quality for preventing diarrhoea: systematic review and meta-analysis. *BMJ*. 2007 Apr 14;334(7597):782.

DISASTER RISK REDUCTION AND MANAGEMENT

Disasters are increasing in frequency and intensity, exacerbated by increased climate variability, increased risk exposure, weak governance, rapid and unplanned urbanization, population growth, and the degradation of natural resources. These risks can be addressed more effectively in advance, and at lower costs, by DRR interventions and strategies, laying the foundation for longer-term resilience and climate adaptation. Risk reduction strategies are those that help people prepare for and respond to shocks and hazards and increase the ability of vulnerable populations to reduce or manage new and existing risks. Risk reduction strategies are preventive in nature and are implemented before a shock or hazard occurs. Examples include community-based DRR, early warning systems for early action, neighborhood approaches to reduce disaster risk, livelihood diversification, health service strengthening, nature-based solutions (NBS) for flood management, and improving DRR strategies, policies and disaster preparedness and contingency planning at community, local, and national levels, as well as insurance products, drought-tolerant or flood-resistant crop varieties, household savings, and social capital utilization.

CORE DRR/M PROGRAMMING PRINCIPLES

The USG adopted the [Sendai Framework for Disaster Risk Reduction: 2015-2030 \(SFDRR\)](#) in 2015, and USAID is committed to designing its DRR and resilience programming to fulfill the goal of the Sendai Framework. USAID/BHA aligns its DRR/M activities along the Sendai Framework's four priorities for action: 1) Understanding disaster risk; 2) Strengthening disaster risk governance to manage the risk; 3) Investing in DRR for resilience; and 4) Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction. RFSAs programming should aim to achieve most, if not all, of these priorities, as outlined below:

- **Understanding Disaster Risk:** RFSAs should incorporate risk assessments and analysis. RFSAs should also incorporate programming approaches that aim to reduce exposure to risks, address underlying vulnerabilities, and advance local capacity, such as action to address underlying drivers of disaster risks. For example, actions can include appropriate land management and developing policy, strategy, and regulations to enable risk-informed decisions and sustainable management of natural resources. RFSAs can also support local or national efforts to prevent new disaster risks from being created and ensure accountability for disaster risk creation where appropriate.
- **Strengthening Governance Systems at All Levels to Manage and Mitigate Disaster Risks:** RFSAs should aim to strengthen good governance in DRR/M strategies at all levels of government, including improving preparedness and disaster management. USAID/BHA RFSAs should follow best practices on locally-led governance, such as using participatory and inclusive processes to garner community input on the identification, mapping, and mitigation of disaster risks.
- **Investing in Disaster Risk Reduction for Resilience:** RFSAs should use structural and non-structural measures, such as nature-based solutions, to enhance the economic, social, health, and cultural resilience of persons, communities, and countries. While all RFSAs are intended to address underlying drivers of vulnerability, such as poverty and food insecurity, USAID/BHA also strongly encourages RFSAs applicants and IPs to use a 'resilience' lens to consider all the various shocks, hazards, and unique vulnerabilities faced by communities in the area of implementation. To achieve this, USAID/BHA strongly encourages approaches that help to prevent and reduce losses and ensure effective recovery and rehabilitation after

disasters; strengthen disaster risk management capacities of individuals and institutions; strengthen human and social capital, and social cohesion, and identify and minimize exposure to climate- and non-climate-related shocks and stressors.

- **Enhancing Disaster Preparedness for Effective Response:** RFSAs should aim to ‘build back better’ in recovery, rehabilitation, and reconstruction following disasters. In areas prone to disasters, RFSAs should aim to strengthen disaster preparedness response to ensure capacities are in place for effective recovery, rehabilitation, and response.

KEY DRR DÉFINITIONS

- **Disaster:** A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic, or environmental losses and impacts. (UNDRR terminology)
- **Disaster risk:** The potential loss of life, injury, or destruction and damage to assets that could occur to a system, society, or community in a specific period of time. (UNDRR terminology)
- **Disaster risk reduction:** The prevention of new risk, reduction of existing risk, and management of residual risk, all of which contribute to strengthening resilience. (USAID terminology)
- **Disaster risk management:** The application of disaster risk reduction policies and strategies to prevent new disaster risks, reduce existing disaster risks, and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses.
- **Hazard:** A process, phenomenon, or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption, and/or environmental degradation. Each hazard is characterized by its location, intensity, magnitude, frequency, and probability. Hazards can result in shocks to households and livelihoods.
- **Resilience:** The ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. (USAID terminology)
- **Risk reduction:** The prevention of new risk, reduction of existing risk, and management of residual risk, which contribute to strengthening resilience and to the achievement of sustainable development.
- **Vulnerability:** The conditions determined by physical, social, economic, and environmental factors or processes, that increase the susceptibility of an individual, a community, assets, or systems to the impacts of hazards. Vulnerability can result in frequent stress to the household. (UNDRR terminology)

RESOURCES

- [Sendai Framework for Disaster Risk Reduction 2015-2030](#) (UNDRR): A key component of the global development agenda that provides UN member states with concrete actions to protect development gains from the risk of disaster. The [U.N. Office for Disaster Risk Reduction \(UNDRR\) website](#) includes the original Sendai Framework, a [Midterm Review of the Sendai Framework](#).
- [Disaster Risk Reduction Information Resources](#) (USAID): This page provides information on disaster risk reduction and the [Early Warning, Preparedness, Mitigation, and Prevention](#) page includes additional resources.

- [2018 Resilience Evidence Forum Report](#) (USAID): This report from USAID’s Bureau for Resilience and Food Security summarizes key insights about resilience and the important role that social capital plays in building resilience capacity.
- [PreventionWeb - Knowledge Base](#) (UNDRR): A global knowledge-sharing platform for DRR and resilience which includes educational material, documents, publications, case studies, best practices
- [Global Disaster Preparedness Center](#) (GDPC): A reference center to support innovation and learning in DRR. GDPC aims to enhance disaster management, namely preparedness, and capacities through a service-oriented and demand-driven approach to building community resilience.
- [Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework](#) (UN Sustainable Development Group): This guidance outlines the impacts of climate and disaster risks on progress towards achieving the SDGs and suggests appropriate actions for each phase in the UN Sustainable Development Cooperation Framework lifecycle to make them risk-informed.
- [Guidance for Using the IUCN Global Standard for Nature-based Solutions](#) (IUCN): This user-friendly framework provides guidance on the verification, design, and scaling of NBS. NBS “use the power of functioning ecosystems as infrastructure to provide natural services to benefit society and the environment.”
- [Global Facility for Disaster Reduction and Recovery Knowledge Center \(GFDRR\)](#): A grant-funding mechanism, managed by the World Bank, that supports disaster risk management projects worldwide.
- [Global Network of Civil Society Organizations for Disaster Reduction \(GNDR\)](#): An international network of CSOs working to strengthen resilience and reduce risk in communities worldwide.
- [Cookbook on Institutionalizing Sustainable Community-Based Disaster Risk Management \(CBDRM\)](#) (GNDR): This document summarizes key “ingredients” utilized in successful, sustainable CBDRM activities globally.
- [Centre for Research on the Epidemiology of Disasters \(CRED\)](#) promotes research; training and technical expertise on humanitarian emergencies, particularly in public health and epidemiology, and hosts the [Emergency Events Database \(EM-DAT\)](#) database.
- [Toward Resilience: A Guide to Disaster Risk Reduction and Climate Change Adaptation](#) (Turnbull et al.): An introductory guide for practitioners integrating DRR/M principles into programming interventions.
- [Blue Guide for Coastal Resilience](#) (The Nature Conservancy) and [Natural and Nature-Based Flood Green Guide](#) (WWF): These guides offer step-by-step guidance to community members, NGOs, CSOs, and local and national governments on how to integrate NBS into DRR planning and implementation.
- [Nature Protects People Platform](#): The Nature Protects People Platform provides guides and tools based on the [Blue Guide](#) and is searchable by type of hazard or NbS. Both the guide and platform were produced by The Nature Conservancy under the USAID/BHA-funded Nature Protects People Project.
- [Resilience in Action Technical Brief: Climate & Ecosystem Inclusive Disaster Risk Reduction](#): The brief identifies four key tenets from included case studies for how program scoping, assessment, design, and adaptive management can be enhanced by integrating climate and ecosystems.
- [Early Warning for Early Action: Toward More Behaviorally Informed Early Warning Systems](#) (REAL): This document focuses on identifying proper early actions and the determinants of those behaviors to improve the likelihood that affected populations heed early warnings and take proper action to protect themselves and [the resources](#) they may require for recovery.

- [Think Hazard! Natural Hazard Information Tool](#) (ThinkHazard!): Provides a general view of the hazards, for a given location, that should be considered in project design and implementation to promote disaster and climate resilience.
- [INFORM](#) (IASC and European Commission): INFORM country risk profiles contain in-depth information on each country.

NATURAL RESOURCE MANAGEMENT

People rely on their environment and the natural resources within it to sustain their diets and livelihoods. Those who are food insecure will rely more heavily on natural resource use. At the same time, unsustainable NRM can exacerbate food insecurity. The climate crisis, shocks, and stresses influence the state of natural resources and the ability to access them.

USAID/BHA supports interventions focused on restoring, conserving, and protecting natural resources and the environment. This includes interventions not only addressing biophysical problems through climate adaptation, social factors, and enabling environments to improve both food security and the health of the planet. Successful interventions identify and engage key stakeholders, ensure underserved populations have a voice in decision-making, and when applicable, involve Indigenous Peoples at the earliest stages possible.

USAID/BHA encourages creative and novel approaches to NRM within an applicant's capabilities, strengths, and experiences. Organizations well placed to address NRM issues have staff capacity and internal policies, strategies, and tools to guide intervention design and implementation. A thorough understanding of evidence-based interventions and strategies that have been tried within a target area, including successes and maladaptations, is necessary to ensure adoption and sustainability. Experience in assessing the current state of natural resources and use by targeted beneficiaries in the proposed activity area is also important. Local and regional organizations and universities with context-specific environmental expertise may be ideal IPs.

The following NRM sub-technical areas may be found in programming, although interventions are not limited to those mentioned below and may be aligned or integrated with other technical sectors such as agriculture, climate adaptation, or DRR.

- **Restoration Efforts:** Restoration efforts may involve land or coastal areas. Common evidence-based approaches for land focus on dryland restoration practices and reforestation. USAID/BHA does not support the introduction of exotic or invasive plant or animal species. Planting trees is not a panacea and may be inappropriate in some areas. Coastal restoration can involve mangrove replanting and area closures to replenish fish stocks and habitat. Local experts, and in some cases, Indigenous populations, are key stakeholders in restoration efforts.
- **Wetland Protection:** The protection of recognized wetlands, such as Ramsar sites, and areas with no official designation, enhances food security, supports climate adaptation, and aids in DRR. Among other functions/values, wetlands serve to anchor shorelines, alter flood flows, provide for groundwater recharge and discharge, and furnish important habitats for fish and wildlife. Due to their ecological importance, alteration or conversion of wetlands to non-wetland uses is strongly discouraged. The [Ramsar website](#) provides information on important wetland sites within each country that has signed on to the Convention on Wetlands.

- **Watershed Conservation:** In some current RFSA, including in Ethiopia and Zimbabwe, watershed conservation is a focal point for improvements to food security. It combines WRM strategies along with restoration efforts, often through the utilization of built and nature-based infrastructure. Interventions need to be evidence-based and site-specific since climate, soil, and topography influence intervention impact. Equally important is a multi-stakeholder commitment to collective engagement in governance structures focused on the watershed and commitments to maintain infrastructure to protect and conserve the area. National governments may have their own watershed guidance which should serve as a starting point for watershed conservation. [The USDA Forest Service Watershed Condition Framework](#) focuses on watersheds within U.S. National Forests but provides guidance on classifying and prioritizing watershed restoration, developing and implementing plans, and tracking and monitoring efforts. The Environmental Protection Agency (EPA) also has examples of [integrated assessments for watershed health](#).
- **Governance, Resource Rights, and Conflict Prevention:** Successful restoration, conservation, and protection efforts are paired with interventions focused on land and water tenure rights, governance, and/or conflict mitigation and resolution. There is a range of interventions that could be put in place including the formation of committees or groups to address NRM concerns, efforts to determine or establish land tenure, and ongoing talks to resolve conflicts over natural resources. Interventions are often context-specific given the enabling environment. Broad stakeholder engagement is needed, especially for underserved populations.

RESOURCES

- [Environmental and Natural Resource Management Framework](#) (USAID): This framework coordinates, unifies, and elevates the Agency’s work in environment, climate change, and NRM. This document can help provide insight into the RFSA priorities around NRM.
- [Sustainable Intensification Assessment Framework - Environmental Domain](#) (Feed the Future): This framework serves as a tool to help assess the impact of agricultural intensification. The Environmental Domain has indicators that may be helpful beyond agriculture.
- [HEARTH Monitoring and Evaluation Toolkit](#) (Integrated Natural Resource Management): This comprehensive resource has guidance on cross-sectoral indicators linked to NRM. Partners may opt to use indicators from this document to measure intervention impact in ways not typically captured by required indicators.
- [Guidance for Using the IUCN Global Standard for Nature-based Solutions](#) (IUCN): This user-friendly framework provides guidance on the verification, design, and scaling of NBS. NBS “use the power of functioning ecosystems as infrastructure to provide natural services to benefit society and the environment.”

NOTABLE RESOURCE LIBRARIES

- [Agrilinks - Climate and Natural Resources](#): Agrilinks is an online hub with resources focused on agriculture, food security, resilience, and poverty reduction. The Climate and Natural Resources topic area has posts, resources, and recorded webinars supporting the sustainable use of natural resources.
- [BiodiversityLinks](#): This site showcases the most recent USAID products, projects, and news on biodiversity conservation from around the world. The Learning and Evidence area of the website has many evidence-based conservation resources.

- [Climatelinks - Natural Resource Management Sector](#): This global knowledge portal curates and archives technical guidance and knowledge related to USAID’s work to help countries mitigate and adapt to climate change. The Natural Resource Management Sector has features, blogs, events, and evidence on climate risk management for NRM.
- [FSN Network Resource Library](#): The Food Security and Nutrition (FSN) Network is a global community where food security practitioners can access and share resources, events, and opportunities as they work to improve the lives of the world's most vulnerable. Training materials, toolkits, and guidance on NRM and food security, including some USAID/BHA-specific resources, are found within the site’s resource library.
- [LandLinks - Climate Change and Natural Resource Management](#): This site is USAID's knowledge-sharing platform focused on land tenure and property rights. The sector-specific site offers assessments, case studies, manuals, and other documents on effective land and resource governance, promoting management and encouraging restoration and stewardship of land, related resources, and ecosystems more broadly.
- [Natural Resources Management and Development Portal](#): The USAID Resources Management Portal aims to collaboratively share resources on activities throughout USAID. Resources focus on linking nature, wealth, and power for resilience development.

WATER RESOURCE MANAGEMENT

Improving WRM plays a fundamental role in maintaining vibrant, resilient societies and economies and is becoming increasingly important as climate change, pollution, and rising demand increase water stress. Climate change is already increasing water stress in many places, making water availability less predictable, with more extreme rainfall and flooding in some areas, and more protracted, severe, or frequent drought in others. Water-related disasters account for 90 percent of “natural” disasters globally and particularly impact vulnerable populations.^{25, 26}

A particular challenge in WRM is that water does not recognize political or administrative borders and flows between jurisdictions, underpinning social, economic, and environmental outcomes. Decisions about water management, which are made without an appreciation for this interconnectedness, will inherently have unintended consequences, including increased conflict and insecurity. WRM, which actively engages stakeholders across all water uses within and between basins can dramatically reduce the overall risks associated with flooding and drought SRFSA programming. This learning note aims to explain what IWRM is and to identify where partners can go for more information or what activities should be done to implement IWRM.

RESOURCES

GENERAL

- [WRM Technical Brief](#) (USAID): Improving WRM plays a fundamental role in maintaining vibrant, resilient societies, and economies and is becoming increasingly important as climate change, pollution, and rising demand increase water stress. This technical brief provides guidance on factors to consider in USAID programs that aim to improve WRM and associated development outcomes.
- [USAID Global Waters](#): This website aims to foster global knowledge and collaboration for sustainable WASH access for all, and provide water practitioners with the latest news, learnings, and resources from USAID and our partners.

²⁵ USAID (2021). [WRM Technical Brief](#).

²⁶ UNDP (2015). [Reducing Disaster Risk: A Challenge for Development](#).

ASSESSMENT, PLANNING, AND MONITORING

- [A Guide to Online and Accessible Resources on Groundwater](#) (PRO-WASH): Good information on groundwater can support better use and management of this essential resource. This PRO-WASH curated guide provides a list of some of the organizations and websites that have freely available information on groundwater in reports, guides, databases, textbooks, maps, learning aids, and other materials. The guide is focused on Sub-Saharan Africa but is also relevant to groundwater elsewhere.
- [Water and Security Planning Toolkit #3](#) (Sustainable Water Partnership): This toolkit covers how to prepare a water security action plan. The approach outlined in this toolkit is intended to help create a transparent, participatory planning process, engage stakeholders, define an appropriate technical scope, and design and conduct water security assessments to understand and address the water security risks in a target geography.

NATURE-BASED SOLUTIONS, INFRASTRUCTURE, AND SOIL AND WATER CONSERVATION

- [Nature-Based Solutions for Water](#) (UN World Water Development Report 2018): This report demonstrates how NBS offer a vital means of moving beyond business-as-usual to address many of the world's water challenges while simultaneously delivering additional benefits vital to all aspects of sustainable development. NBS use can mimic natural processes to enhance water availability including soil moisture retention and groundwater recharge; improve water quality, including through natural and constructed wetlands and riparian buffer strips; and reduce risks associated with water-related disasters and climate change, including flooding and drought. Currently, water management remains heavily dominated by traditional, human-built (i.e. 'grey') infrastructure and the enormous potential for NBS remains under-utilized.
- [Small-Scale Drylands Agriculture](#) (USAID): The purpose of this document is to support environmentally sound design and management. This document details how conservation agriculture, rainwater harvesting, the use of cross-slope barriers, integrated soil fertility management, integrated crop and livestock management, sustainable forest management, improved irrigation design, and agroforestry, especially with indigenous trees, can be employed. When these strategies are effectively implemented, in combination or alone, they can help conserve water, enhance soil fertility, improve crop water-use efficiency, and boost rangeland health, while preventing the unintended negative consequences associated with dryland farming.
- [Agricultural Water Management Implementation Brief](#) (USAID): This implementation brief presents strategic approaches to improving agricultural water management (AWM) to increase both water resources and project outcome sustainability. This guide helps USAID staff and their partners identify and implement best-fit AWM practices for particular sociocultural, market, and environmental contexts.

CLIMATE CHANGE AND DROUGHT

- [Climate Change, Risk, and Resilience in WASH and Agriculture Projects](#) (PRO-WASH and SCALE): Climate change impacts WASH and agriculture programs and threatens progress. Climate information services (CIS), sometimes known as hydrometeorological systems, are a series of powerful tools and resources that can help to improve planning, reduce risk, and increase resilience. This brief introduces CIS and describes how CIS can be used by partners. The brief lists resources for CIS and shows where more information can be found. It also introduces national, regional, and global CIS providers and partners.

- [Ecosystem-based Adaptation and Water Security](#) (BRIDGE): This evidence summary provides information on how ecosystem-based adaptation (EbA) approaches can support water security. EbA involves the use of biodiversity and ecosystem services to help people and communities adapt to the adverse impacts of climate change. The evidence summary explains that EbA can support water security by increasing water quantity, enhancing water quality, and minimizing impacts on water security from extreme weather events.
- [High and Dry: Climate Change, Water, and the Economy](#) (World Bank): A World Bank report finds that water scarcity, exacerbated by climate change, could hinder economic growth, spur migration, and spark conflict. However, most countries can neutralize the adverse impacts of water scarcity by taking action to allocate and use water resources more efficiently.
- [Wellspring: Source Water Resilience and Climate Adaptation](#) (The Nature Conservancy): This document explores how practitioners can implement a new approach to source water protection, which integrates enhanced resilience to sustain communities and ecosystems in a shifting climate.
- For more climate-related resources, please see the Climate section.

FUNDING & FINANCING OF WRM

- [Funding Water Security Toolkit #4](#) (USAID): This toolkit covers funding and is designed to improve stakeholder capacity to investigate and evaluate the current and possible sources for funding water security activities in a geographic focus area. This toolkit has three objectives: discuss water security funding, describe the main funding sources and their availability for different types of water security activities, and explain how to justify funding through a review and assessment of costs and benefits.

GOVERNANCE AND TRAININGS

- [Water Security, Sanitation, and Hygiene Governance Technical Brief #7](#) (USAID): The purpose of this guidance note is to provide a common definition of governance for the USAID's engagement in WRM sectors and to describe the process of analysis, strengthening, measuring, and reporting on improvements in WRM governance.
- [User's Guide on Assessing Water Governance](#) (UNDP): This user's guide recognizes that water governance has emerged as one of the most critical areas in the context of sustainable water resources development and services, and is a useful tool to assist in assessing how water is supplied, to whom, and to identify bottlenecks and challenges.
- [OECD Principles on Water Governance](#) (OECD): The OECD Water Governance Principles provide the 12 must-dos for governments to design and implement effective, efficient, and inclusive water policies. To date, they have been endorsed by 170+ stakeholder groups or governments

WATER AND CONFLICT

- [Water and Conflict: A Toolkit for Programming](#) (INRM): This practical toolkit explains the connection between water management and key risk factors associated with conflict, provides avenues for addressing those links, and suggests ways to incorporate conflict integration into WASH programming. This document is intended to understand the context in which it is operating, particularly concerning inter-group relations; understand the interactions between its interventions and the context/group relations; and act upon these understandings in a way that avoids negative impacts and maximizes positive impacts.
- [From Conflict to Collaboration in Natural Resource Management: A Handbook and Toolkit for Practitioners Working in Aquatic Resource Systems](#) (Collaborating for Resilience): The

handbook and toolkit can be used to support any participatory process aimed at sustainable resource and conflict management.

- [Conflict Resolution and Negotiation Skills for IWRM: Training Manual](#) (Cap-Net): This is a training manual on conflict resolution and negotiation skills for IWRM.

GENDER MAINSTREAMING AND IWRM

- [Why Gender Matters: A Tutorial for Water Managers](#) (Cap-Net and Gender and Water Alliance): This tutorial is a self-learning tool for professionals and managers in the water sector. It is designed to help them account for the different needs of the women and men that will be affected by their work. The tutorial explains the importance of gender mainstreaming in the water sector.