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Sustaining Development: A Synthesis of Results from a Four-Country Study of Sustainability and Exit Strategies among Development Food Assistance Projects

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Dear Reader:

The U.S. Agency for International Development (USAID) Office of Food for Peace (FFP) welcomes this important and timely study from the Food and Nutrition Technical Assistance III Project (FANTA) and the Tufts University study team. We commissioned this report with the objective of determining what factors enhanced the likelihood of sustained project benefits, in order to improve our guidance for future food assistance development projects. The report's findings and resulting sustainability conceptual framework are relevant not only to FFP but to other development actors as we collectively work to end hunger and extreme poverty—aspirations at the heart of the just-launched Sustainable Development Goals and central to both USAID's mandate and the U.S. Government's Feed the Future global hunger and food security initiative.

FFP development projects are designed to reduce the long-term need for food assistance by strengthening the capacity of developing societies to ensure access to nutritious food for their most vulnerable communities and individuals, especially women and children. The study team looked at 12 FFP development projects across four countries and asked not only *what was achieved by each project's end?*, but also, *what of those achievements remained one year after project close-out? and two years after?* This rigorous, retrospective approach is not widely done, but is essential if we are to understand the true impacts of our investments. To be effective, development projects must result in changes that last beyond the duration of the project themselves.

This report challenges us to take a fresh look at our project approaches: it calls for much greater focus on the issues of exit and sustainability at the time of project design, cautions that replacements for free resource transfers (including food) must be identified well before project closure, and states that some actions that drive big results during the life of the project may actually undermine sustainability in the long run. We are challenged to ask if we are willing to accept more modest results in the near term if they can be delivered in a way that will yield more sustainable gains over time.

In its 2016–2025 strategy, FFP is committing to a greater focus on sustainable results. This FANTA report has informed that product. We look forward to working with our partners to achieve our shared goal of reducing hunger and malnutrition and thank FANTA and the Tufts study team for their valuable effort. This synthesis report will be accompanied by the complete country-specific studies for Bolivia, Honduras, India, and Kenya in the coming months.

Sincerely,

Dina M Esposito
Director, Office of Food for Peace
Bureau for Democracy, Conflict and Humanitarian Assistance

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Acronyms

ADRA	Adventist Development and Relief Agency
CF	complementary feeding
CHW	community health worker
COSAMO	community savings mobilization (Kenya)
CRS	Catholic Relief Services
EBF	exclusive breastfeeding
FANTA	Food and Nutrition Technical Assistance III Project
FFP	Food for Peace
FH	Food for the Hungry
IGA	income-generating activity
MCHN	maternal and child health and nutrition
NGO	nongovernmental organization
NRM	natural resource management
PA	producer association
SC	Save the Children
USAID	U.S. Agency for International Development
W&S	water and sanitation
WV	World Vision

Executive Summary

Overview

To be effective, development projects must result in changes that last beyond the duration of the projects themselves, without the continued provision of external resources to sustain benefits. In 2006, the U.S. Agency for International Development (USAID) Office of Food for Peace (FFP) began requiring that all development food assistance projects include explicit explanations of how projects intend to ensure the sustainability of activities and benefits after each project's end. From 2009–2015, FFP, through the USAID-funded Food and Nutrition Technical Assistance Project (FANTA), provided support to Tufts University to conduct a multi-country study to assess the effectiveness of FFP-supported projects' sustainability plans and exit strategies.[i] The objective of the study was to determine what factors enhanced the likelihood of sustained project activities and benefits in order to provide guidance to future FFP development food assistance projects, with implications for other development projects as well, on how to ensure sustainability.

Food for Peace's Work

FFP supports projects that work across sectors using various tools and approaches, including food assistance and cash resources, to reduce hunger and malnutrition and ensure that all people at all times have access to sufficient food for a healthy and productive life.

Conceptual Framework

Observations during the early stages of the study provided a framework for the study's main lines of inquiry. Briefly, these observations indicated that project activities fall into three main groups: (1) creation or strengthening of service delivery mechanisms, (2) assurance of beneficiary access to services, and (3) improvements in beneficiary demand for and use of services and adoption of behaviors promoted by the project. In addition, three factors emerged from analysis of the initial rounds of qualitative data collection that were identified as critical to sustainability: (1) a sustained source of **resources**, (2) sustained **technical and managerial capacity**, and (3) sustained **motivation** (of beneficiaries and service providers). The study identified a fourth factor that may be central to sustainability in many circumstances: **linkages** to governmental organizations and/or other entities. The study assessed the role of each of these factors as it related to the projects' observed sustainability.

Methods

The study assessed 12 projects in four countries: Bolivia, Honduras, India, and Kenya. The FFP development projects in those countries had recently closed (in Kenya) or were in the process of doing so (in Bolivia, Honduras, and India) as of 2009, providing an opportunity to study the process of exit from the time of close-out through the next 2–3 years. In addition, projects in each of these countries exhibited attention to sustainability and exit in their applications and subsequent plans. Projects implemented activities in the following technical sectors: maternal and child health and nutrition; water and sanitation; agriculture, livestock, and rural income generation; natural resource management; school feeding; and micro-savings and loan (not all sectors were addressed in every country). The study used a mixed methods approach in which three rounds of qualitative data collection were conducted 1 year apart (at the

[i] A sustainability plan represents all elements of project design that take sustainability into account; an exit strategy is an explicit plan guiding the process of withdrawing resources from beneficiary communities. Sustainability plans are based on assumptions (which may be implicit or explicit) about mechanisms by which project activities and benefits will be sustained; the validity of these assumptions is a determinant of the success of a sustainability plan.

time of exit, and 1 and 2 years later) to understand the implementation of the exit process and its evolution over time. In addition, researchers conducted a quantitative survey (referred to as the follow-up survey) between 2 and 3 years after exit. This survey replicated each project's quantitative endline evaluation survey so that results could be compared statistically. The research examined project baseline and midterm evaluation reports, when available,[ii] combined with endline and follow-up survey data to examine indicator trends over the course of each project period and beyond. To obtain additional background information on the projects' design and implementation, researchers reviewed project documentation, including project applications, indicator performance tracking tables, endline evaluation reports, and any available exit strategy documentation. The review triangulated these information sources to assess the implementation and sustainability pathways of each project. The purpose of this triangulation was to ascertain the degree to which project sustainability plans and exit strategies contributed to sustainability of activities, outcomes, and impacts,[iii] and what elements were most important in achieving sustainability. The 2–3 year time horizon and lack of randomly assigned comparison groups represent study limitations.

Results and Lessons Learned

Evidence of project success at the time of exit (as assessed by impact indicators) did not necessarily imply sustained benefit over time. Across countries and across the organizations implementing FFP projects (awardees) in each country, there were cases of endline impacts being sustained, improved, or deteriorating over the 2–3 year period following project exit. Moreover, the study found that focusing exclusively on demonstrating impact at exit may jeopardize investment in longer-term sustainability. For example, awardees providing services to farmers to market their products up until the time of project exit were able to maximize farmer income from agricultural commercialization at the end of the project, but farmers' lack of experience negotiating independently for transportation or sale of their products appeared to reduce their ability to continue commercializing their products on their own after the projects ended.

Study results demonstrated that all three hypothesized factors—resources, capacity, and motivation—were critical to achieving sustainability. These factors are interrelated and synergistic; no project in this study achieved sustainability without all three of them in place before the project ended. Project provision of piped water in Bolivia and Honduras provides an example of the convergence of these factors: user fees generated needed resources; beneficiaries valued piped water and were therefore motivated to pay for it; and water committees received both technical and managerial training which was maintained through continued application.

[ii] All of the projects in Bolivia, Honduras, and Kenya had baseline surveys, and all of them had midterm evaluations during the life of the project. The data sets from the baseline and midterm surveys were not available for analysis. In a few cases, the baseline reports were not available and baseline data used for this study were derived from the endline evaluation reports. FFP in India started operation in the 1950s, when baseline surveys were not routinely performed. In later years the endline evaluation reports for each project cycle served as the baselines for subsequent projects. The study team had access to these reports for the last two cycles (including the final cycle focused on phasing all project activities over to Indian government programs), and to the data from the endline evaluation.

[iii] The following definitions are from USAID's *Glossary of Evaluation Terms* (Planning and Performance Management Unit Office of the Director of U.S. Foreign Assistance Final Version, 2009): **Activity**: A specific action or process undertaken over a specific period of time by an organization to convert resources to products or services to achieve results. **Outcome**: A result or effect that is caused by or attributable to the project, program, or policy. Outcome is often used to refer to more immediate and intended effects. **Impact**: A result or effect that is caused by or attributable to a project or program. Impact is often used to refer to higher-level effects of a program that occur in the medium or long term, and can be intended or unintended and positive or negative.

Linkages, especially vertical linkages, such as those between community-based organizations or individuals and existing public or private sector institutions, were usually critical for successful phase-over of responsibilities formerly supported by the FFP projects. For example, the absence of effective vertical linkages between community health workers and the public health system in Kenya jeopardized the continued role of the community health workers because they lacked supervision and support (motivation), refresher training (capacity), and replacement supplies (resources) to do their jobs. By contrast, vertical linkages of farmers to buyers in Bolivia and in Kenya provided resources and training (through an assured market), as well as motivation (from the income received) for farmers to continue applying improved practices and commercializing crops.

In the exit process, a gradual transition from project-supported activities to independent operation was important for sustainability. Water committees did not continue quality testing post-project in Bolivia and Honduras, at least in part because the awardees arranged for this service to be provided until the project ended. Although awardees communicated the importance of water quality testing, the water committees themselves did not have the experience of making these arrangements independently prior to exit, and did not start to make these arrangements after exit. Sustainability was more likely when projects withdrew gradually, allowing community-based organizations to develop the capacity to operate independently. Micro-savings and loan organizations in Kenya continued to operate, and even expanded after project exit, in part because the majority were operating independently well before exit, having been "graduated" to independent operation once they had completed pre-defined milestones that included a process of initial mobilization and training.

The study showed that providing free resources can threaten sustainability, unless replacement of those resources both as project inputs and as incentives has been addressed. Provision of resources (such as free supplementary food in maternal and child health and nutrition projects or free marketing services in agriculture projects) created expectations in many projects that could not be sustained once resources were withdrawn. In Kenya and Honduras, participation in growth monitoring fell significantly after food supplements were withdrawn; in Bolivia, government provision of conditional cash transfers (which were implemented independently of the FFP projects) replaced food supplements as an incentive, and growth monitoring participation was better sustained. In the agriculture sector, model farmers in Bolivia, Honduras, and Kenya largely stopped offering training when they no longer received the incentive of free agricultural inputs.

Not all models for assuring sustainability are equally applicable to all technical sectors. For example, fee-for-service models contributed to the sustainability of paravet services in Kenya. Similarly, a business model appeared to work well for agricultural commercialization in Bolivia, Honduras, and Kenya, and for micro-savings and loan activities in Kenya. However, the awardees providing maternal and child health and nutrition services did not test either of these approaches in any of the countries studied, in part because of what the study team found to be a strong cultural understanding across study areas that public health services should be provided without charge.

Not all factors affecting sustainability are inherent in a project's design and exit strategy. The operating context and exogenous shocks (e.g., economic and climatic) also affected the sustainability of project benefits. For example, drought in Kenya affected both agricultural production and child nutritional status; economic shocks such as a decline in world coffee price threatened the income benefit of coffee commercialization activities in Honduras. Conversely, the Government of India's long standing commitment to the provision of child health and nutrition services, along with a Supreme Court decision

mandating food provision as part of these services, contributed to the sustainability of supplementary food and health activities in that country.

Conclusions

Project impact at the time of exit does not consistently predict sustainability, and the magnitude of the impact is not related to the probability of sustainability. Analysis of the experiences of the projects in these four countries suggests that incorporating the lessons for sustainability into project design may improve the likelihood that development projects continue to offer benefits after project completion. Awardees should base their sustainability plans and related exit strategies on clearly articulated theories of change. They need to assess carefully and realistically the assumptions underlying sustainability plans and reassess them continually to account for changes in the external environment. Sustainability plans cannot be based on the hope that activities and benefits will continue in the absence of the key factors identified in this study. In addition to measuring impact, evaluations must incorporate indicators of sustainability—that is, evidence of continued resources, capacity, and motivation; establishment of appropriate linkages; and gradual transition to independent operation—in order to judge a project's potential to achieve lasting change. Different strategies for sustainability are appropriate and feasible in different technical sectors: this applies to business and fee-for-service models, as well as to the potential for phase-over to government, commercial organizations, or nongovernmental organizations. Table 8, at the end of this report, summarizes the specific plans and strategies that were effective in each technical sector.

Recommendations

The study findings led to the following recommendations intended to institutionalize sustainable approaches to project design and evaluation. These recommendations are specific to FFP, but the conclusions are likely relevant to other development projects, whether food-assisted or not.

- FFP should adjust the solicitation and application review processes to account for sustainability. Sustainability plans incorporating the critical factors of resources, capacity, motivation, and (often) linkages and explicitly describing the implementation pathway for these plans and the key assumptions on which the plans are based should be included in project design. Sustainability plans should clearly articulate the sustainability theory of change as part of project design.
- Project assessment should include indicators to measure not only impact but sustainability of change. Sustainability plans and exit strategies should contain clear timelines and benchmarks of progress toward sustainability that are separate from indicators of project impact.
- FFP should consider adjusting its evaluative processes and extending projects beyond the 5-year cycle when there is evidence of progress toward sustainable impacts and indications of potential for sustainability.
- FFP and its partners should strengthen their capacities, as necessary, to institutionalize sustainability in programming through training and improved knowledge management, as well as strengthened organizational commitment to look beyond immediate impact to sustainability.
- Projects should be designed with the local context (economic, political, and social/cultural systems) in mind, should take account of the need for resilience in the face of climate or other shocks, and should be updated in response to changes in the local context.
- Project design should incorporate strategies for sustaining beneficiary demand as well as supply of services.
- Project exit should be gradual, with a phased transfer of responsibility to the appropriate stakeholders; exit should follow a phase of incrementally independent operation and project beneficiaries and

beneficiary communities should be engaged in plans for sustainability and exit from the beginning of the project cycle.

- FFP should consider selecting a subset of projects for periodic assessment over a period of as long as 5 or 10 years after exit to track the evolution of activities and benefits and their persistence over time.
- FFP should ensure continued and consistent use of a system whereby awardees archive all baseline and evaluation reports including accessible and documented original data.

1 Overview and Objectives

To be effective, development programs must result in lasting change. Projects may meet their objectives by improving economic, health, or social conditions while they are operating, but genuine development success is achieved only through sustained change that does not depend on continued external resources provided by donor organizations. The U.S. Agency for International Development's (USAID's) Office of Food for Peace (FFP) recognized this in 2006, when it began requiring that all development food assistance project applications include explicit explanations of how projects intend to ensure their impacts will last beyond the life of their activities—that is, the projects' plans for ensuring sustainability.[1] Emergency food assistance projects—those intended to provide food to displaced or disaster-affected populations—may have to prioritize short-term impact over long-term sustainability in order to meet urgent survival and health needs, although even in emergency settings, concern for sustainability is relevant, in particular for longer-term protracted emergency responses. In development settings, achieving impacts that are sustained after the projects end should be part of the definition of project success.

USAID Food for Peace Development Projects

Food for Peace is a USAID program, authorized under the U.S. Government's Farm Bill, which supports projects intended to decrease food insecurity in vulnerable populations in the developing world. The program, in existence since 1954, provides food commodities (such as wheat, rice, lentils, and other foods), value-added foods (such as corn-soy blend and ready-to-use supplementary food), and complementary cash resources to support projects implemented by nongovernmental and intergovernmental organizations in some of the world's most resource-poor and food-insecure settings. Projects supported by FFP typically include interventions in several sectors, including: maternal and child health and nutrition, water and sanitation, agricultural development, rural income generation, natural resource management, and microfinance.

Development food assistance projects, such as those included in this study, make use of food and/or cash resources—supported by other project approaches (e.g., training, infrastructure improvements, and social and behavior change communication)—to feed vulnerable groups directly (as in the provision of supplementary foods for the treatment and prevention of child malnutrition or cash vouchers for the purchase of select food commodities) or to support development-related activities (as in the provision of food or cash for work to support participation in natural resource management or infrastructure construction interventions). Food can also function as an incentive for participation in project activities.

The present study addresses the sustainability of awardee programming in a range of technical sectors supported by FFP in four countries. The findings of the study are likely to be applicable not only to FFP and other food-assisted projects, but to a broad range of development interventions.

[1] Development food assistance projects have previously been referred to as Title II programs, development programs, development assistance programs, and multiyear assistance programs.

Study Objectives

In order to further FFP's priorities regarding sustainability, FFP, through the USAID-funded Food and Nutrition Technical Assistance III Project (FANTA), supported its partner, the Tufts University Friedman School of Nutrition Science and Policy, to conduct a multi-country study to assess the effectiveness of FFP-supported development food assistance project sustainability plans and exit strategies in achieving sustained benefits. Researchers chose a mixed-methods approach combining quantitative surveys with key informant interviews, focus groups, and direct observations in Kenya, Bolivia, Honduras, and India between 2009 and 2013. Research design focused on generating evidence of the following: the extent to which activities, outcomes, and impacts of FFP projects were sustained after withdrawal of project funding; the project and non-project factors that likely sustained benefits after project closure; and the mechanisms by which the process of exiting affected sustainability. The analysis of these results yields guidance to future food-assisted development projects, and likely to other development projects as well, regarding how to ensure sustainability of development gains.

This report provides a summary of the research, including findings from all four country studies and related recommendations. Section 2 contains the conceptual framework that guided the study's inquiry, followed by the research methods used across all study countries and study limitations (section 3). Section 4 provides the activities, sustainability plans, and exit strategies of the various projects. Section 5 presents results of the four country studies and the lessons learned from the research as a whole, followed by conclusions (section 6) and recommendations emerging from this work (section 7).[2]

Overview of Sustainability Plans and Exit Strategies in FFP Projects

Sustainability is achieved when outcomes and impacts (and sometimes activities) are maintained or even expanded after a project withdraws its resources through the exit process. A **sustainability plan** should represent all the elements of project design that take sustainability into account and should increase the likelihood that project outcomes and impacts and (where relevant) activities continue. An **exit strategy**, by contrast, has been defined as a "plan for how a project will withdraw its resources while ensuring that achievement of project goals is not jeopardized and that progress toward these goals will continue."[3] "Exit" can also refer to the graduation of individuals from external support for certain activities.[4] For example, in its exit strategy an organization may decide to *phase out* its technical support to farmer groups once certain objectives have been achieved; e.g., the farmer groups have been trained, are registered with the government, have a constitution and a renewable resource base, and/or have demonstrated that they can access and use market information and negotiate contracts with buyers independently. That same organization's exit strategy may include continued support of community health workers (CHWs) with the objective of eventually *phasing over* responsibility for their management to local, government-run health centers.[5]

It is a common misconception that sustainability plans and exit strategies connote actions that need to be taken only in the final phases of a project's closeout. On the contrary, an organization should build sustainability into project design and plan for exit from the project's inception. Thus, the sustainability

[2] Comprehensive reports of objectives, methods, findings, and recommendations for each of the four study countries are forthcoming.
[3] Rogers, B. and Macías, K.E. 2004. *Program Graduation and Exit Strategies: A Focus on Title II Food Aid Development Programs*. Washington, DC: FANTA. p. 2.
[4] Gardner, A.; Greenblott, K.; Joubert, E. 2005. *What We Know about Exit Strategies.* C-SAFE.
[5] Levinger, B. and McLeod, J. 2002. *Hello, I Must Be Going: Ensuring Quality Services and Sustainable Benefits through Well-Designed Exit Strategies*. Newton, MA: Education Development Center, Inc., Center for Organizational Learning and Development.

plan (elements of project design that promote sustainability) and the exit strategy (operational and logistical plan for withdrawal) are both elements of the implementing organization's approach to ensuring continuation of project benefits.

As noted, since 2006 FFP has required development food assistance projects to incorporate mechanisms for achieving sustainability into their design. The current guidance (for fiscal year 2015) similarly requests a description of the exit strategy for each activity, including how sustainability will be considered, but does not mandate a specific format or content for the sustainability plans and exit strategies to be included in a proposed project.[6] The exit strategy study team conducted a comprehensive review of the sustainability plans and exit strategies incorporated in the applications of all FFP development food assistance projects that were operating worldwide in 2009.[7] Among the 55 projects reviewed, most of the organizations implementing projects (referred to as awardees) had described only briefly and in general terms how they expected to achieve sustainability.

There are several reasons why few projects had developed detailed, explicit sustainability plans or exit strategies as of 2009. One is that there is little empirical evidence to guide organizations in designing exit strategies and implementation processes to yield longer-term, sustainable results. These evidence gaps exist partly because funds for evaluation have typically been tied to project cycles, not reserved for assessment after projects end. They also relate to the real methodological challenges of attributing progress (or lack thereof) to projects that ended years ago. FFP is to be commended for supporting studies such as this one and for requiring awardees to think about sustainability and exit strategies in their applications. Despite the fact that sustainability plans have been required in FFP project applications since 2006, FFP has, to date, typically held projects accountable for achieving impacts over the life of the project (and awardees have been evaluated on that basis) but not for ensuring these benefits are maintained following project closure.[8] Finally, there is an implicit assumption that large, short-term impacts will result in improved sustainability. However, as this study shows, the strategies used to achieve short-term impacts can actually undermine the likelihood of producing lasting results. FFP has been taking steps to increase its focus on sustainability, yet there are additional steps that must occur to institutionalize these changes within FFP's processes and to ensure broader learning within the implementing community. FFP intended that results of studies such as this one, designed to understand predictors and indicators of the potential for sustainability, would influence its internal policy and learning agenda to incorporate sustainability programming effectively into its mainstream activities, and that the study would provide guidance to future awardees on implementing sustainable development projects.

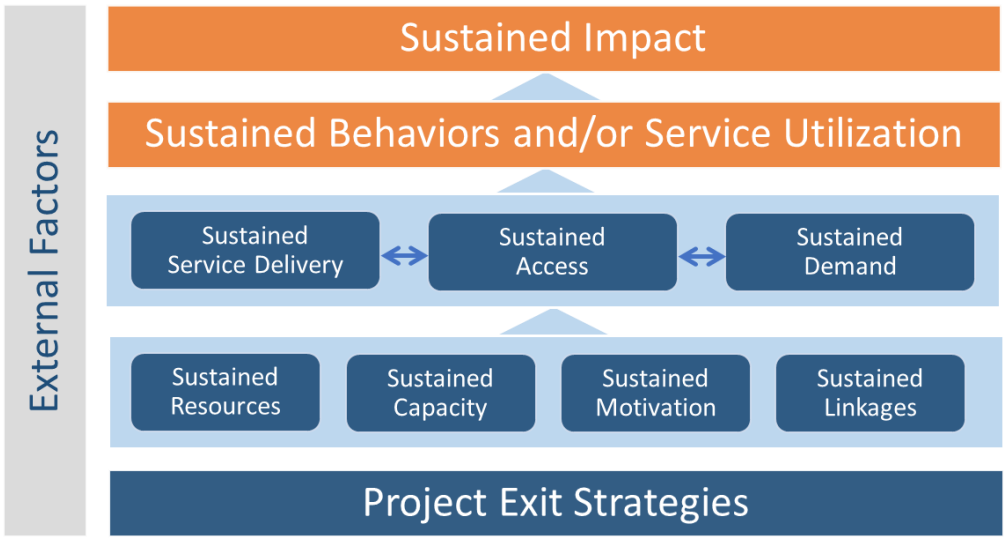
[6] USAID. n.d. *Technical References for FFP Development Food Assistance Projects.* Washington, DC: USAID.
[7] Koo, L. 2009. "Review of Exit Strategies in USAID Title II Development Food Aid Programs." Tufts University Friedman School of Nutrition Science and Policy. Unpublished.
[8] Recent shifts in USAID and FFP priorities have moved toward promoting approaches that focus more explicitly on sustainable development, for example by incorporating "systems thinking" into the design of FFP and other USAID projects. See for example USAID's *Local Systems: A Framework for Supporting Sustained Development* (2014). Nonetheless, endline evaluations still focus on measuring baseline-endline impacts rather than indicators of sustainability, although there were indications at the time of the release of this report that this, too, may be changing.

2 Conceptual Framework and Hypothesized Factors Predicting Sustainability

Based on observations during the early stages of the study, the study team formulated a conceptual framework of factors that were hypothesized to predict continued benefit after the end of a project (see Figure 1). The framework is based on the idea that most project activities can be grouped into three categories of implementation outputs: (1) creation or strengthening of service *delivery* mechanisms, (2) assurance of beneficiary *access* to services, and (3) improvements in beneficiary *demand* for services. For example, the maternal and child health and nutrition (MCHN) components of the projects in this study trained CHWs to provide community-based health services, such as growth monitoring, to strengthen service delivery. Activities to improve beneficiary access to services included reducing social, geographic, and time barriers to services through community-based growth monitoring and CHW home visits. Activities to improve beneficiary demand for services included health and nutrition education to sensitize women to the role that behavior changes, including increased health service uptake, can play in child health.

As shown in the framework, the study was based on the understanding that sustained project impacts were hypothesized to depend on the continued delivery of these types of services (of sufficient quality to be effective and valued) and/or the continued adoption and use of practices and behaviors promoted in the project. Based on the results of the first round of qualitative data collection in the four countries, the study team developed the hypothesis, tested in subsequent rounds and in the quantitative analysis, that sustained service delivery, service use, and practices require four key factors: (1) a sustained source of ***resources***; (2) sustained technical and managerial ***capacity***, so that service providers can operate independently of the awardee; (3) sustained ***motivation and incentives*** that do not rely on program inputs; and often (4) sustained ***linkages*** to other organizations or entities that can promote sustainability by augmenting resources, refreshing capacity, and motivating frontline service providers and beneficiaries to provide and make use of services and to continue practices promoted by the projects.

Figure 1. Sustainability and Exit Strategies Conceptual Framework



Adapted from Coates and Kegode. 2012. "Kenya Exit Strategies Study Round 2 Report." Unpublished, submitted to FANTA April 8.

The study team expected that the same categories of factors needed to sustain service delivery would also be critical to sustaining demand for those services. Beneficiaries would require the resources, capacity, motivation, and linkages to demand, afford, and participate in services and to implement the behaviors that were promoted by the awardees. Sustained access is the confluence of supply and demand. It pertains to: the ability and motivation of beneficiaries to continue to avail themselves of services that were previously subsidized or free (demand), and the geographic and physical accessibility of the services (supply).

The study team also hypothesized that the exit process would be critical to sustainability. In particular, the team hypothesized that a more gradual exit that allows a period of independent operation with some supervision is likely to be more successful in promoting sustained impact than abrupt disengagement. A final hypothesis underlying the study was that external shocks, such as periodic drought or political crisis, as well as key contextual factors, such as government structure, other projects operating in the area, and/or cultural beliefs, could threaten the sustainability of outcomes and impacts achieved during the project unless recognized and managed from project conception by incorporating resilience strategies and other contingencies into the sustainability plan.

3 Research Methods and Study Limitations

At the time that FFP initiated funding for the study (through FANTA), FFP was in the process of ending its development activities in a number of countries, which created the opportunity to examine the exit process and assess sustainability across a geographically diverse sample. The countries included in this study—Bolivia, Honduras, India, and Kenya—were also chosen because of their attention to sustainability and exit. One to two years prior to closure, projects in Bolivia and Honduras had developed detailed and explicit sustainability plans and exit strategy documents with phase-over and/or phase-out approaches, timelines, and benchmarks indicating readiness for exit that were intended to be used as roadmaps for the final phase of project implementation. The projects in India were explicitly sustainability oriented, as the focus of their final 5-year development food assistance projects was to transition longstanding project services in all sectors to the government. The projects in Kenya were more representative of the full portfolio of FFP development projects at the time: elements such as capacity building and training, strengthening of vertical and horizontal linkages, and promotion of self-governance and self-financing were implied in the projects' designs, but there were no explicit plans for achieving sustainability objectives.

The research covered 12 FFP projects across the four selected countries between 2009 and 2013. The projects were implemented by Adventist Development and Relief Agency (ADRA), CARE, Catholic Relief Services (CRS), Food for the Hungry (FH), Save the Children (SC), and World Vision (WV). A similar protocol was used for each project studied, with all quantitative and qualitative data collection protocols approved by the Tufts Institutional Review Board for Social, Behavioral, and Economic Research.

The study used a mixed methods approach that included qualitative data collection, a quantitative survey, direct observations in the field, review of project baseline and midterm evaluation results, when available,[9] and additional background information on the projects' design and implementation derived from project applications, indicator performance tracking tables, and endline evaluation reports. The study team then triangulated these data sources to conduct an analysis of project implementation, impact, and sustainability pathways. Pathway analysis is an evaluation approach that examines the success of each major stage of a project's theory of change, as well as contextual factors that might influence effectiveness. This approach is used as a way of explaining not just what was achieved by the project, but how and why these changes occurred.[10] The projects studied had not formally incorporated a theory of change into their applications, but the study team inferred the causal links implied in the projects' designs and examined data at each link in the conceptual framework depicted in Figure 1, specifically,

[9] All of the projects in Bolivia, Honduras, and Kenya had baseline surveys, and all of them had midterm evaluations during the life of the project. The data sets from the baseline and midterm surveys were not available for analysis. In a few cases, the baseline reports were not available and baseline data used for this study were derived from the endline evaluation reports. FFP in India started operation in the 1950s, when baseline surveys were not routinely performed. In later years the endline evaluation reports for each project cycle served as the baselines for subsequent projects. The study team had access to these reports for the last two cycles (including the final cycle focused on phasing all project activities over to Indian government programs), and to the data from the endline evaluation.

[10] World Health Organization. 2008. "Strengthening Action to Improve Feeding of Infants and Young Children 6–23 Months of Age in Nutrition and Child Health Programmes: Report of Proceedings." Geneva, Switzerland, October 6-9; Habicht, J.P. and Martorell, R. 2010. "Probability, Plausibility, and Adequacy Evaluations of the Oriente Study Demonstrate that Supplementation Improved Child Growth." *Journal of Nutrition*. Vol. 140, pp. 407–10; as cited in Avula, R. et al. 2013. "A Program Impact Pathway Analysis Identifies Critical Steps in the Implementation and Utilization of a Behavior Change Communication Intervention Promoting Infant and Child Feeding Practices in Bangladesh." *Journal of Nutrition*. Vol. 143, pp. 2029–2037, p. 2030.

information on project impact and the implementation of exit strategies; data on sustained service delivery, beneficiary demand, access, and use; information about sustained behavior changes and impacts; and information on the operating context, including other development activities active in the area.[11] The purpose of this approach was to ascertain whether and how project sustainability plans and exit strategies contributed to sustainability of activities, outcomes, and impacts.

The study team conducted qualitative interviews and focus groups with former project staff, service providers (e.g., CHWs and model farmers), beneficiaries, and others involved in project activities (such as government officials and contract buyers). The team conducted these interviews around the time of each project's exit to understand implementation of each project's sustainability plans and exit strategies and to explain observed changes in the continuation of activities, outcomes, and impacts. The team repeated qualitative data collection in each project area both 1 and 2 years following exit (three rounds total) in order to understand the dynamics of sustainability in the years after the FFP projects ended.[12] Qualitative interviews were not always conducted with the exact same individuals, but the team interviewed the same organizations and groups (such as micro-savings and loan groups, water committee members, officers in commercial agricultural marketing organizations, and municipal government officials) in successive rounds.

The study team coded and analyzed qualitative data using NVivo 8 (QSR International),[13] to facilitate systematic data analysis and comparison of results across different countries. The coded data were organized and analyzed by sector (e.g., MCHN, water and sanitation [W&S], agriculture, rural income-generating activities [IGA], watershed development, livestock sector interventions, and natural resource management [NRM]), respondent type (category of service provider or beneficiary), and theme to examine trends and changes over the rounds of qualitative data collection.

The study team implemented quantitative surveys (referred to as "follow-up surveys") 2–3 years after project exit and replicated each project's endline evaluation survey in order to quantify the degree to which project benefits achieved in the project period had been maintained. Follow-up surveys were implemented in the same season as the endline surveys (to permit comparability of results), except in the case of one awardee in Kenya, which had conducted its endline survey at different periods throughout the year and could not be replicated at follow-up due to resource constraints. Follow-up surveys collected data on a representative sample of the population in the target areas of the awardee projects. Some awardee endline surveys were conducted on a sample drawn only from project beneficiaries; in these cases, the follow-up survey included a question about previous project participation, permitting comparisons of endline with follow-up beneficiaries, while also permitting analysis at the community level. Project baseline and midterm evaluation results, when available, were used in combination with endline and follow-up survey data to examine indicator trends over the course of each project period and beyond. Baseline and midterm data sets were not available to the study team so the team relied on information from evaluation reports when these were available. Only project endline data sets were available for reanalysis. Table 1 summarizes key data sources available and collected for this study.

[11] Detailed results from each of these stages in the causal pathway are included in the four forthcoming country-specific reports.
[12] In the case of Honduras, the political crisis that resulted from the overthrow of the president prevented the team from conducting the first round of qualitative data collection in 2009. Phone interviews with key project staff and available project documents were used as proxies to assess the situation at the time of exit. The India study was designed to collect two rounds of qualitative data, one at exit and one 2 years later, due to administrative and funding constraints.
[13] NVivo 8 is a commonly used software program for organizing qualitative data. See http://www.qsrinternational.com/ for more information about the features of this statistical software.

Analysis of the follow-up survey data required first operationalizing the project indicators using each project's indicator performance tracking tables to determine which indicators the projects had used to measure relevant outcomes and impacts. When precise indicator definitions from the endline evaluation reports were not available, the researchers developed logical definitions and constructed comparable indicators from endline and follow-up survey data sets. As raw data from the baseline and midterm evaluations were not readily available, these results were extracted, where possible, from tables in the evaluation reports. All data sets were cleaned and analyzed using Stata versions 11 and 12 (StataCorp LP).[14] Anthropometric indicators were constructed using Emergency Nutrition Assessment for Standardized Monitoring and Assessment of Relief and Transitions (SMART Methodology), version 11, with World Health Organization 2006 child growth standards.[15] All baseline anthropometric indicators were converted to current growth standards using the method of Yang and de Onis.[16]

Flagged, implausible anthropometric data points were removed from analysis of endline and follow-up data. Significance tests were conducted to compare responses from the endline and follow-up surveys. The significance level used for all hypothesis tests was $\alpha < 0.05$. The survey design used by each project was accounted for in data analysis. All significance tests were two-sided, using the null hypothesis of no difference between endline and follow-up results. A significant change in the desired direction was interpreted as evidence of improvement from endline to follow-up (that is, the benefit was not only sustained but increased), and a significant change in the undesired direction was interpreted as evidence that the achievement was not sustained. A non-significant change in this context was interpreted to correspond to the possibility that impacts were sustained at the same level as at endline, although this could not be concluded with statistical certainty. Whether an observed change was important (separate from statistical significance) is a matter of judgment, and the results are reported with this perspective to the extent possible.

Table 1. Key Data Sources by Year and Country

Country (Awardees)	Baseline (Awardee)	Midterm (Awardee)	Endline (Awardee)	Follow-up (Tufts)	Qualitative (Tufts)
Bolivia (ADRA, CARE, FH, SC)	2002	2005	2009	2011	2009, 2010, 2011
Honduras (ADRA, SC, WV)	2005	2007	2009	2011	2010, 2011
India* (CARE, CRS)	2006 (CARE) 2006 (CRS)	2007, 2008 (CARE) N/A (CRS)	2009 (CARE) 2010 (CRS)	2011 (CARE) 2012 (CRS)	2009, 2011 (CARE) 2010, 2012 (CRS)
Kenya (ADRA, CARE, FH)	2003 (ADRA, FH) 2004 (CARE)	2006	2008	2011	2009, 2010, 2011

* The studied projects in India focused on phase-out of ongoing activities. As such, endline evaluations in 2006 of the previous iteration of the projects served as the baseline for the final project period studied in this report. CARE's phase-out was assessed in 2007, 2008, and 2009, while the CRS phase-out did not have a midterm evaluation but had an endline evaluation in 2010. The surveys for this study were conducted in different years, reflecting the different time lines of the two projects.

[14] See http://www.stata.com/ for information about the features of this statistical software.
[15] WHO. 2006. *Child Growth Standards: Methods and development: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age.* Geneva: WHO.
[16] Yang, H. and de Onis, M. 2008. "Algorithms for converting estimates of child malnutrition based on the NCHS reference into estimates based on the WHO Child Growth Standards." *BMC Pediatrics*. Vol. 8:19.

Limitations

The study encountered challenges related to study design and data quality, many of which were unique to this type of post-project evaluation and the retrospective nature of the research. As described previously, the research was started just as the projects were closing and after their final evaluations were complete; the team did not have any influence over the design of the final evaluations. Consistent with USAID policy, awardees were not required to assign a control or comparison group at their baseline, midterm, or endline evaluation. Therefore, the Tufts team could not employ an experimental study design. The lack of a comparison group at baseline and endline compromised the team's ability to determine *statistically* whether maintenance, improvements, or deterioration in impact indicators after the projects ended were attributable to the projects' effectiveness and the sustainability of their benefits rather than to non-project factors. Triangulation of multiple data sources and pathway analysis were two approaches used to mitigate these challenges. While the optimal study design might also have been a longitudinal panel study, this was not feasible because endline evaluation surveys did not collect household identifiers to enable returning to the same households surveyed.[17] In addition, since the follow-up surveys were conducted between 2 and 3 years after the end of the projects, activities and impacts that were sustained over that time period may in fact not have been sustained in the longer term.

Another challenge was ensuring comparability between the Tufts follow-up surveys and the awardee endline evaluation surveys implemented 2–3 years earlier while also assuring data quality. Most former project staff had departed the organizations, and detailed project documentation was not always available. The Tufts team used the same questionnaires that were administered for the awardees' endline surveys, with some additions, but without modifying the original questions. This meant all questionnaire items were replicated to enable endline/follow-up comparisons, even where overall design and individual questionnaire items could have been improved. All awardees conducted baseline surveys and midterm evaluations, but the baseline and midterm data sets were not available for analysis from most of the awardees. In lieu of raw data, the team relied on indicator results as reported in the awardees' midterm and final evaluation reports and/or their indicator performance tracking tables, which did not permit statistical comparisons with baseline data.

The study assessed sustainability of outcomes and impacts using available awardee data and indicators that were measured largely at the household level. Thus, the implications of project interventions for issues such as gender equity could not be explicitly addressed in the study. Equity related to characteristics of beneficiaries (for example, differential impacts on landowners vs. non-owners; differential ability to participate in producer associations based on productive capacity) are addressed in the individual country reports.

The limitations described in this section underscore the challenges of conducting research on project sustainability. While some of these issues were the unavoidable result of project-based development and the turnover in staff that occurs at the end of a project, others can be traced to the fact that the institutional archiving of monitoring and evaluation data was not a prioritized or standardized practice among these FFP projects at the time of their implementation.[18]

[17] Project evaluations typically do not incorporate such longitudinal panel designs, and these are not required.
[18] FFP has established requirements that awardees make reports available through USAID's Development Experience Clearinghouse (DEC). USAID now also has established a requirement that awardees make data sets available through USAID's Development Data Library (DDL).

4 Overview of Study Projects: Operating Context, Activities, and Sustainability Plans

Operating Context

Table 2 summarizes the sectors and geographic foci of each FFP development project included in the study. As is typical for FFP projects, the 12 country projects studied here were implemented in low-resource, food-insecure contexts. Yet the operating contexts of the separate projects within a given country and across countries were politically, culturally, agro-ecologically, and economically distinct, and the challenges they faced during and after the project period also differed. For example, in Kenya, the awardees' target areas faced drought and post-election violence during the project period. In Bolivia, a national movement toward political decentralization, which supported rural development projects of the kind funded by FFP, aided progress toward sustainability. In Honduras, there was a constitutional crisis at the time of FFP project exit, resulting in a significant reduction in both international trade and foreign aid to the country, with detrimental effects on the economy and the resources available for government programs that might have been used to sustain several FFP activities. In India, the time of FFP exit coincided with two major policy shifts: a Supreme Court declaration of a universal "right to food," which resulted in the government taking over distribution of food rations, and the universalization of the Integrated Child Development Service, committing the government to provide food, health care, and preschool services to the entire country. In addition, the sustainability plans and exit strategies for both CARE and CRS in India emphasized transitioning project activities to existing, already-funded central government programs.

Given that no project implementation process can be separated from its context, assessments of successful and unsuccessful approaches to sustainability and exit must take contextual factors into account. These contextual factors range from periodic droughts or floods or transitions of power during elections, which can be expected and planned for, to truly unexpected shocks such as earthquakes or political upheavals. Nonetheless, the possibility of such events is never absent. Rather than viewing these factors as confounders, the study team treated them as important variables for understanding which types of strategies work better and less well under what specific circumstances.

Table 2. Key Characteristics of the FFP Development Projects Studied

Country/ Awardee Name	Sectors of Intervention	Geographic Focus[19]
Bolivia		
ADRA	MCHN, W&S, Agriculture/IGA/NRM	Chuquisaca
CARE	MCHN, W&S, Agriculture/IGA/NRM	Chuquisaca, Tarija, Potosí
FH	MCHN, W&S, Agriculture/IGA/NRM	Potosí and Cochabamba
SC	MCHN, W&S, Agriculture/IGA/NRM	La Paz

[19] In this table geographic focus refers to areas of implementation in the most recent project cycle. Specific information on the duration of time each project had implemented activities in each geographic focus area prior to the most recent project cycle was not consistently available and therefore was not included.

Country/ Awardee Name	Sectors of Intervention	Geographic Focus[19]
Honduras		
ADRA	MCHN, W&S, Agriculture/IGA/NRM	Santa Barbara
SC	MCHN, W&S, Agriculture/IGA/NRM	Choluteca, Francisco Morazán, Valle
WV	MCHN, W&S, Agriculture/IGA/NRM	Ocotepeque, Copán
India		
CARE	MCHN	Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, West Bengal
CRS	MCHN, Watershed Development, Education	Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Rajasthan, Tripura, Uttar Pradesh, Uttaranchal, West Bengal
Kenya		
ADRA	MCHN, W&S, Agriculture, Livestock, Micro-Savings and Loan	Ikutha District, Yatta District
CARE	W&S, Agriculture, Savings and Loan	Nyanza Province
FH	MCHN, W&S, Agriculture, Livestock	Marsabit District, Chalbi District, Laisamis District

Summary of Project Activities and Sustainability Plans

Awardees' project designs and sustainability strategies were often similar, although the details of their implementation approach and the context in which they operated sometimes differed dramatically. The following subsections provide a brief overview of the projects' main activities that were studied, by sector. In each subsection, a table presents key elements of the projects' sustainability plans and exit strategies, derived from project documents and key informant interviews. For each strategy, the table presents corresponding underlying assumptions, or preconditions that would be required for the strategies' long-term success. Awardees did not always recognize these assumptions or preconditions as fundamental prerequisites for achieving sustained benefit; rather, the researchers inferred these key assumptions by identifying gaps in the underlying project theory and analyzing the qualitative and quantitative study results with these inferences in mind. As discussed in section 5 (Summary of Findings and Lessons Learned), the sustainability of these interventions suffered when projects overlooked or failed to elucidate the detailed key assumptions and causal pathways necessary to transform their inputs into long-term benefits.

Maternal and Child Health and Nutrition Sector

The MCHN components of the FFP projects trained CHWs to provide health and nutrition services in their communities, including community-based growth monitoring, health and nutrition education at growth monitoring sessions, and home visits to promote and reinforce good health, nutrition, and hygiene

practices. Except in CARE areas of India, these CHWs were unpaid.[20] Supplementary food rations were provided to beneficiary mothers/caregivers participating in growth monitoring sessions. The CARE project in India was unique in that it focused exclusively on health sector activities. CARE had been working in India with FFP support since the 1950s, and its last 5-year FFP development project was devoted to building capacity and institutionalizing systems for improved health sector supervision, management, and logistics. The project's entire last funding cycle was focused on establishing effective management systems and gradually transitioning project health and nutrition services (including food rations) to the government.[21] Table 3 describes the sustainability strategies used in each country, and the key assumptions (not always made explicit) underlying them.

Table 3. Summary of Sustainability Strategies and Key Assumptions in the MCHN Sector

Country	Project Sustainability Strategy	Key Assumptions
Bolivia, Honduras, Kenya (all awardees) India (CRS only)	Inform CHWs they should continue their duties after the project ends	• CHWs will be willing to continue their work once the project ends, without remuneration or other material benefit • The satisfaction of providing services and the appreciation of the community will motivate CHWs to continue providing services • The benefit of service delivery will outweigh CHW opportunity costs
Bolivia, Honduras, Kenya (all awardees)	Link trained CHWs with Ministry of Health services for sustained supervision, training, and supplies	• The Ministry of Health and its service providers have the capacity, resources, and motivation to support CHWs • The Ministry of Health and its service providers recognize the value of CHWs and are willing to support them
India (both awardees)	Transfer responsibility for community health services from project-trained CHWs to government health workers	• The relevant ministries have the resources, commitment, and capacity to ensure that government health workers are employed, supervised, and paid regularly • Government health systems will function effectively to assure that growth monitoring, education, health services, and food rations will be reliably provided
Bolivia, Honduras, Kenya (all awardees)	Teach beneficiaries to replace externally-funded supplemental rations with locally available nutritious food	• Households can access locally available nutritious food through their own production or will purchase, have time, and know how to prepare such food • Caregivers will be motivated to provide locally available nutritious foods to their children, and the children will consume them

[20] CARE worked with the government health care system, in which childcare workers are salaried and accredited social health activists are paid for achieving certain benchmark results.

[21] As noted earlier, FFP had been operating in India since the 1950s. Its projects have evolved as FFP refined and improved its approach, by adding more health services and behavior change communication to MCHN programming, and its processes for evaluating projects and incorporating lessons learned in subsequent project designs. Over this period, CRS worked closely with churches and local nongovernmental organizations while CARE worked closely with the government health system. These long-term relationships may have had implications for the sustainability of the changes the awardees gradually effected.

Country	Project Sustainability Strategy	Key Assumptions
Bolivia, Honduras, Kenya, India (all awardees)	Teach mothers improved health practices that they can continue to apply once the project ends	• Mothers will be motivated to continue applying improved health practices—at the home, community, and facility level—by visible health improvements in their children • Mothers will remember the practices they learned • CHWs will continue to provide reinforcement • Mothers will have the resources (including time) needed for the practices

Water and Sanitation Sector

The W&S components were similar in many ways across Honduras, Bolivia, and Kenya (no household or community potable water interventions were implemented in India). All awardees in the three countries formed and trained local water committees to manage the development of water infrastructure and generate demand for protected water sources. In Honduras and Bolivia, the focus was on providing piped water into households and constructing latrines for household use; in Kenya, the W&S projects improved access to protected community water points used for both households and livestock. Hygiene practices were targeted as part of W&S and MCHN interventions in Kenya but only as part of MCHN interventions in Honduras and Bolivia. The projects' sustainability strategies and underlying assumptions are shown in Table 4.

Table 4. Summary of Sustainability Strategies and Key Assumptions in the W&S Sector

Country	Project Sustainability Strategy	Key Assumptions
Bolivia, Honduras, Kenya (all awardees)	Train water committees on the technical and managerial aspects of maintaining community water points or piped water systems	• Water committees will be adequately trained and retain their capacity • Water committee members will be able to train their replacements adequately • Water committees will be able to access further technical assistance when needed
Bolivia, Honduras, Kenya (all awardees)	Implement user fees to cover operating costs and maintenance of water points or piped water systems	• Water sources will be reliable, adequate, accessible, and of sufficiently good quality to incentivize payment • Communities will demand and be willing to pay for water • User fees will be sufficient to cover maintenance costs and periodic replacement of capital equipment • Water committees will have sufficient administrative capacity to manage their budgets effectively
Bolivia, Honduras, Kenya (all awardees)	Strengthen relations with government officials involved in water provision and water quality to ensure their availability as a technical resource if needed	• Government will have the resources and commitment to support future needs of community water committees • Committees will seek and accept government input into the management of their water systems

Country	Project Sustainability Strategy	Key Assumptions
Bolivia (ADRA only)	Hand over responsibility for water quality testing to municipal water provision agencies	• Municipal governments will purchase necessary testing equipment and prioritize resources for water quality monitoring
Bolivia, Honduras (all awardees)	Encourage water committees to use their resources and technical capacity to apply water purification techniques at the water source	• Beneficiaries will recognize the benefits of purification and want water to be purified • Water committees will have the resources to purchase chlorine and the technical capacity to administer it • In Honduras, government-run chlorine banks will provide access to low-cost chlorine

Agricultural Development, Natural Resource Management, Watershed Development, and Livestock Sectors

In Honduras, Bolivia, and Kenya, the agriculture/NRM component involved training model farmers in improved practices to train other farmers, and organizing and training producer (or farmer) associations (PAs) to engage in collective marketing. The approaches to improving agricultural income included promoting improved agricultural techniques, introducing new crops, and providing training to support commercialization. NRM activities were similarly structured among the awardees: food-for-work and inputs provided by the project supported various environmental activities aimed at improving land productivity and increasing resilience to climate shocks. CRS in India was the sole awardee to work on watershed development. The CRS interventions constructed or improved local irrigation systems that were intended to increase crop and livestock production and permit multiple crops per year; the project did not explicitly promote commercialization or provide marketing assistance, although farmers were generally already engaged in sales. Only in Kenya did awardees (ADRA and FH) implement major livestock sector interventions, including training paravets (community-based animal health workers) to provide veterinary services. On a smaller scale in Bolivia, agricultural technicians, including paravets, were trained to offer their services on a fee-for-service basis as part of the agriculture/NRM intervention and three of the four awardees worked with farmers on livestock production and sale. In FH areas of Kenya, interventions included strengthening livestock market infrastructure and promoting conflict prevention to improve market accessibility, trade efficiency, and pastoralist incomes. Table 5 shows the sustainability strategies and underlying assumptions in these technical sectors.

Table 5. Summary of Sustainability Strategies and Key Assumptions in the Agriculture/NRM, Watershed Development, and Livestock Sectors

Country	Project Sustainability Strategy	Key Assumptions
Agriculture/NRM		
Bolivia, Honduras, Kenya (all awardees)	Train farmers to adopt improved cropping practices to increase yields and produce new crops for commercialization; in Honduras, train farmers to plant nutritious non-traditional crops in family garden plots for home consumption	• Farmers will be motivated by the visible benefits (yields and sales) from adopting the practices • Farmers will pay for inputs with profits from increased production and commercialization • Farmers will be motivated to continue planting crops to benefit their households' consumption • Application of practices will be resilient to climate shocks (such as drought and frost)
Bolivia, Honduras, Kenya (all awardees)	Train extension farmers or model farmers to teach other farmers improved production techniques; encourage them to continue training other farmers post-exit	• In Bolivia and Honduras, extension farmers/model farmers will work without compensation • In Kenya, extension farmers/model farmers will start to charge a fee for service after awardee exit, and farmers will be willing to pay
Bolivia, Honduras, Kenya (all awardees)	Establish and train PAs to engage in contract agriculture and non-contract commercial sales, using profits to motivate and sustain this activity	• Producers can meet the quantity and quality requirements of long-term contracts • PAs have adequate management and accounting skills to negotiate and maintain contracts with buyers • Contracts and other market linkages will remain accessible and profitable for farmers • Farmers will be motivated by better prices and market access to join PAs, pay membership fees when required, and participate in collective marketing through the PA
Bolivia, Honduras, Kenya (all awardees)	Establish linkages among PAs and other institutions (e.g., government agencies, nongovernmental organizations, and businesses) for ongoing assistance in managing legal needs, accessing credit, and obtaining other technical assistance	• Linked partners will have sustained interest in collaborating with PAs after awardee exit, perceive a benefit from collaboration, and have adequate resources and capacity to support the PAs
Bolivia, Honduras (all awardees)	Provide technical and management training to small enterprises to sell transformed/processed agricultural products, and assist small enterprises in obtaining legal recognition	• Small enterprises will obtain legal recognition • Small enterprises will link to profitable markets for their products • Profitability will motivate and provide resources for continued operation

Country	Project Sustainability Strategy	Key Assumptions
Bolivia, Honduras, Kenya (all awardees)	Promote NRM activities that are directly linked to improved production and/or greater resilience to shocks; in Bolivia, encourage municipal governments to support continued NRM activities	• Community members will recognize the tangible benefit of NRM activities and will be motivated to continue them without further inputs or remuneration • Community members will maintain their technical capacity to implement NRM activities • In Bolivia, municipal environmental units will have staff and resources to support NRM activities
Watershed Development		
India (CRS only)	Teach watershed development committees to access labor for watershed maintenance and credit through government employment and credit programs	• Committees will know how to contract for labor and enforce contracts • Laborers will be motivated to seek employment through the government program • Laborers will fulfill their work obligations
Livestock		
Bolivia, Kenya (ADRA and FH)	Train paravets to provide veterinary services	• In Kenya, demand for paravet services will be high among pastoralist and agro-pastoralist communities where government extension coverage is low • Livestock holders will value and pay for the services in light of tangible benefits
Bolivia, Kenya (ADRA and FH)	Instruct paravets to charge fees for services from the beginning of their operation	• Fees raised will allow paravets to replenish their kits and pay for transportation • Profit received will sustain paravet motivation
Kenya (ADRA and FH)	Link paravets to the Government of Kenya's Department of Veterinary Services for continued access to technical assistance	• The Government of Kenya will have motivation and resources to provide continued technical support to paravets in order to maintain quality and access to resources

Microfinance Sector

Two of the twelve awardees (both in Kenya) implemented microfinance activities. CARE implemented a women-focused community savings and loan activity that organized women into mutual saving and lending groups that did not use any external source of capital. This activity had a high rate of participation among the target population, and women were motivated to continue participating because of the financial benefits they gained. ADRA served as a microfinance intermediary in its communities by arranging, distributing, and monitoring loans on a small scale. Because microfinance activities were a relatively minor component of ADRA's project and because there was no apparent associated sustainability strategy for the intervention, Table 6 focuses only on CARE's microfinance activities.

Table 6. Summary of Sustainability Strategies and Key Assumptions in the Microfinance Sector

Country	Sustainability Strategy	Key Assumptions
Kenya (CARE)	Work only with pre-existing community-based organizations, which were formed into savings and loan groups	• Community-based organizations have strong institutional capacity • Self-government creates social pressure, which encourages timely loan repayment
Kenya (CARE)	Generate all seed capital from group members—do not provide external investment	• Contributing personal funds leads to greater group buy-in • Profits will motivate members to continue participation
Kenya (CARE)	Use community-based trainers paid by CARE to teach savings groups to be self-regulated and self-governed	• Community-based trainers will provide technical assistance for a fee, paid by each savings and loan group after CARE's exit • Trainers will be motivated by training fees, and the savings groups will recognize their benefit and be willing to pay

Education Sector

In CRS' education sector work in India, the FFP project provided food for school feeding in preschools, primary schools, and boarding schools and also focused on teacher training to improve the quality of education and increase retention rates of children across grades. Sustainability strategies and underlying assumptions associated with these activities are shown in Table 7.

Table 7. Summary of Sustainability Strategies and Key Assumptions in the Education Sector

Country	Sustainability Strategy	Key Assumptions
India (CRS)	Seek government support through its midday meals program to replace FFP food resources	The Government of India will be willing to incorporate CRS-run private schools into the midday meals program
India (CRS)	Continue providing teacher training through existing organizations	Partner organizations will continue to provide teacher training

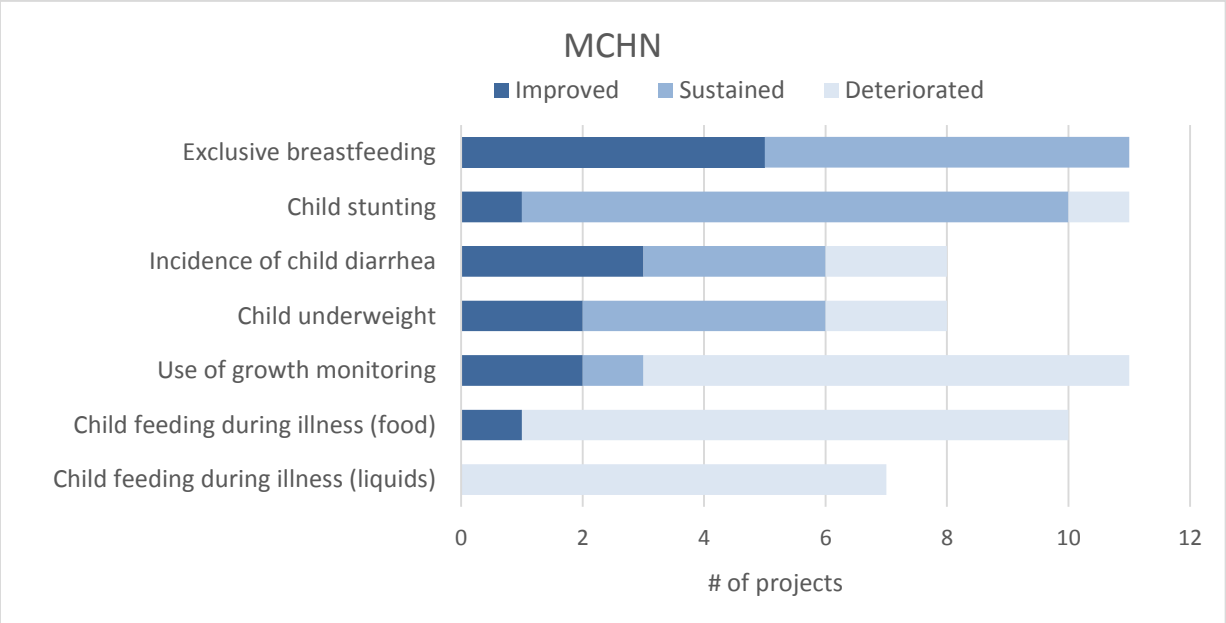
5 Summary of Findings and Lessons Learned

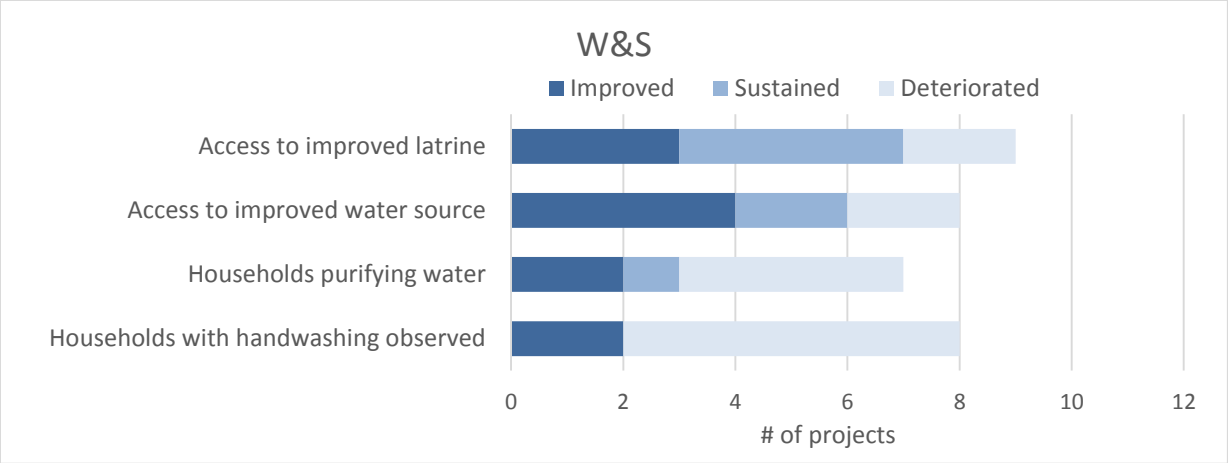
This section summarizes the key findings and lessons derived from the four country studies, and provides select examples of results that underlie these conclusions. Individual country reports with more detailed results will be published separately.

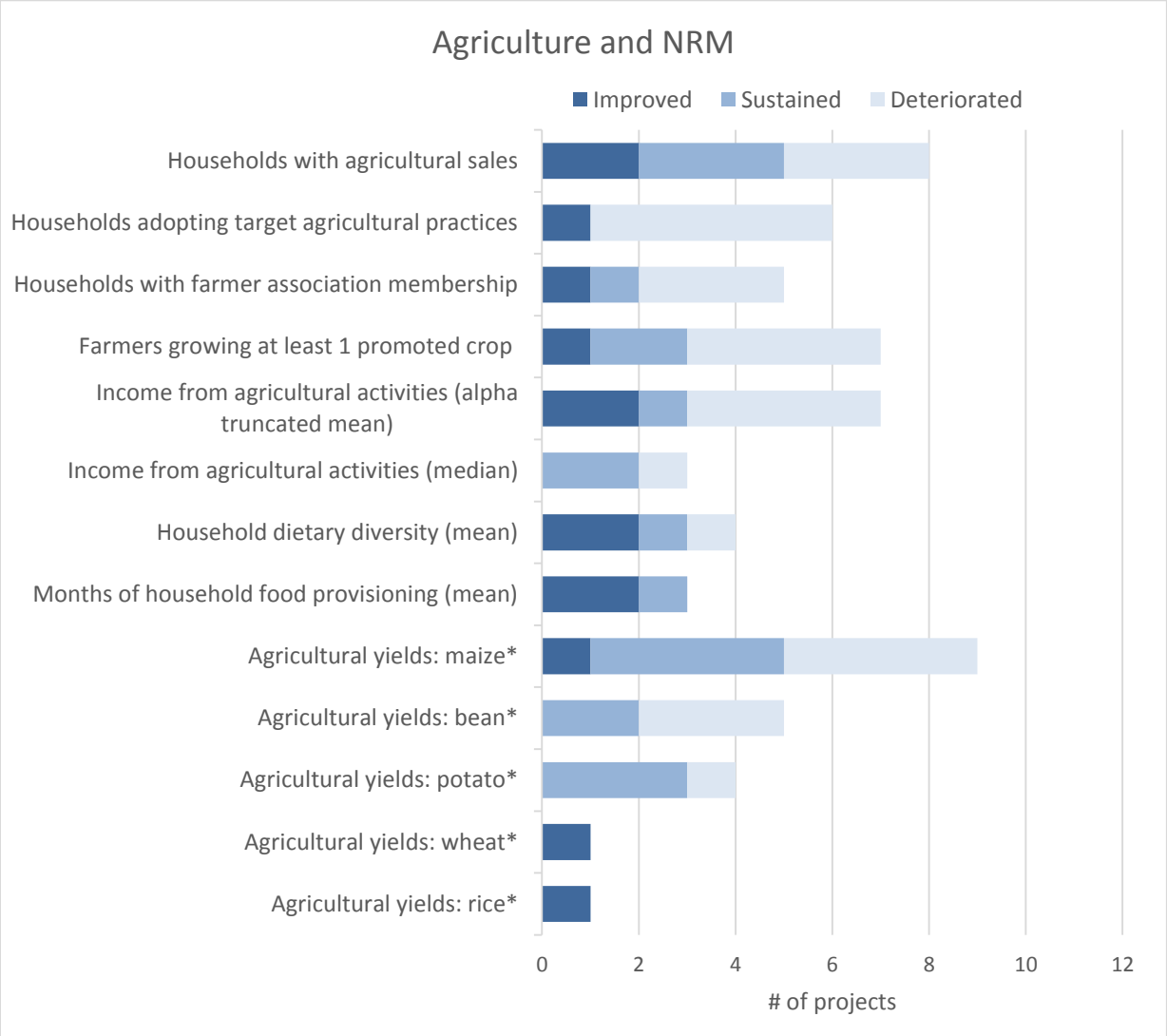
Project Success and Sustainability

Evidence of project success at exit did not necessarily imply sustained benefit over time. Some indicators improved after exit, some were sustained, and others declined. In all sectors across all study countries, there were examples of indicators that looked promising at exit but declined, sometimes dramatically, by the time of the follow-up survey 2–3 years later. Other indicators were not only sustained but improved over the same period. Figure 2 summarizes some of the projects' impacts and outcomes and the number of projects in which they were sustained (maintained or improved from endline to follow-up) and not sustained (deteriorated over the same period). (See Appendix 1 for endline and follow-up data for each indicator by project, which shows the sometimes dramatic differences in the degree of decline or improvement, and the differing levels of each indicator at endline.) Neither the awardees' endline evaluations nor the follow-up studies were designed with control groups to permit attribution of impact to the individual projects; rather, the study team used a program implementation pathway analysis to infer these relationships. Using this approach, the observed declines could be traced to a combination of inadequate design and implementation of sustainability strategies and exit processes, lack of attention to the key assumptions underlying the expectation of sustainability, and, to a lesser but not insignificant extent, external factors such as drought. For the elements that were sustained or improved, the positive outcomes can be attributed to the confluence of the key factors identified in this study: attention to resources, capacity, and motivation, careful consideration of appropriate linkages, and a period of independent operation prior to project exit. As the subsequent text describes, this summary simplifies a more complex picture of what was and was not sustained, and why.

Figure 2. Number of Projects in which Select Impact Indicators were Sustained from Endline to Follow-Up by Sector



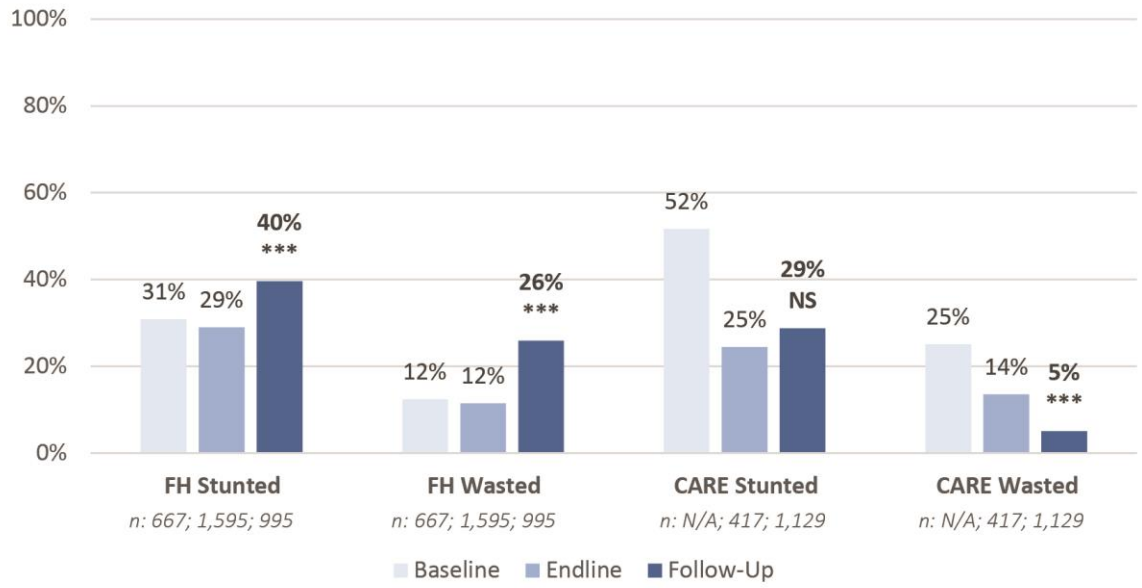




Note: Indicator definitions vary by country and awardee (see individual country reports). The length of each bar indicates the number of projects which included that component; not all projects were intended to affect every indicator (for example, only one project was designed to affect the yield of rice).
* Mean truncated at the upper end of the third quartile of the interquartile range.

A key impact indicator across projects in all the countries studied was the prevalence of malnutrition in children. Achievements in improving prevalence of childhood stunting at endline were sustained at follow-up in all projects except for FH in Kenya and several states in India, and the decline in prevalence of wasting was sustained for the most part, with the exception of FH in Kenya and CRS in India.[22] Figures 3–6 illustrate how the prevalence of stunting and wasting evolved from baseline to follow-up in each study country. In Kenya (Figure 3), gains achieved by the project at endline were sustained in CARE areas but reversed in FH areas, in this case largely because of the severe food emergency that afflicted the FH areas in 2011 at the time of the follow-up survey. In Bolivia and Honduras, rates of childhood stunting fell significantly in all awardee areas between baseline and endline, and these improvements were sustained or significantly improved by the time of follow-up (Figures 4 and 5). In India, stunting prevalence in the CRS areas also showed overall improvement from baseline to endline; however results at follow-up were inconsistent by state, as shown in Figure 6. Similarly, in CARE areas, reductions in rates of stunting were sustained overall, but were variable by state—stunting prevalence rose significantly from endline to follow-up in Andhra Pradesh, remained the same in Chhattisgarh and Orissa, and fell significantly in Uttar Pradesh.

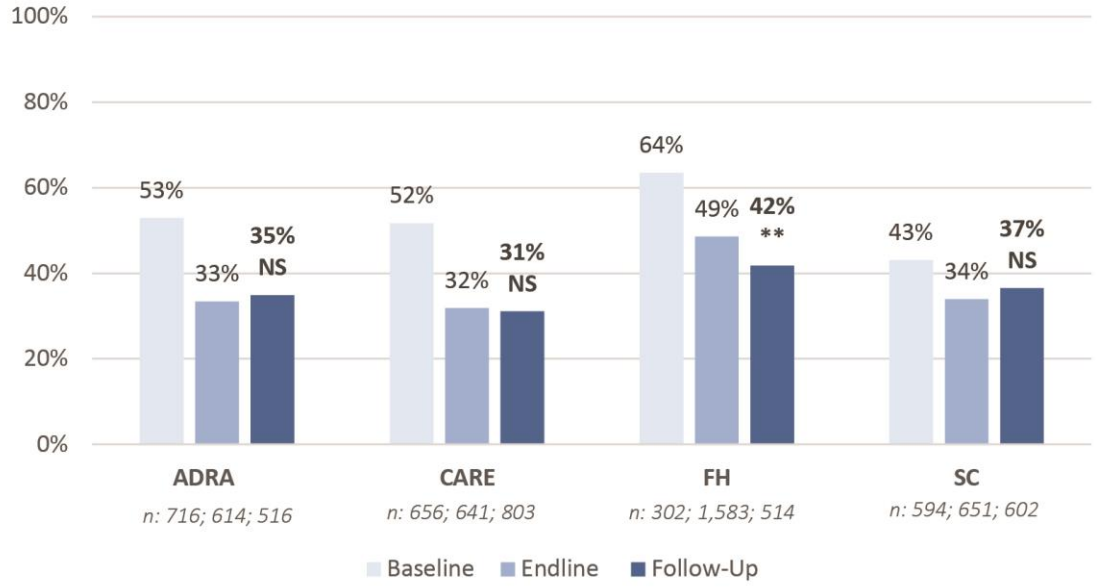
Figure 3. Prevalence of Malnutrition from Baseline to Follow-Up among Children 0–59 Months of Age in Kenya



Notes: Age ranges include 6–59 months (FH) and 0–59 months (CARE); N/A = not available
Significance from endline to follow-up: NS = not significant, *** significant at $p < 0.001$

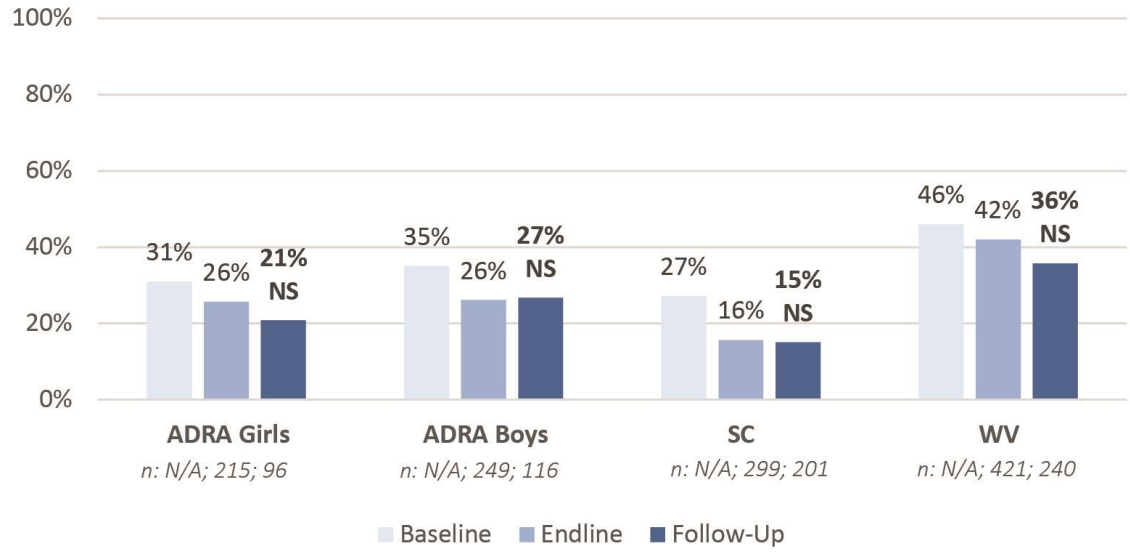
[22] For countries in this report, stunting refers to height-for-age z-score < -2 and wasting refers to weight-for-height z-score < -2.

Figure 4. Prevalence of Stunting from Baseline to Follow-Up among Children 3–35 Months of Age in Bolivia



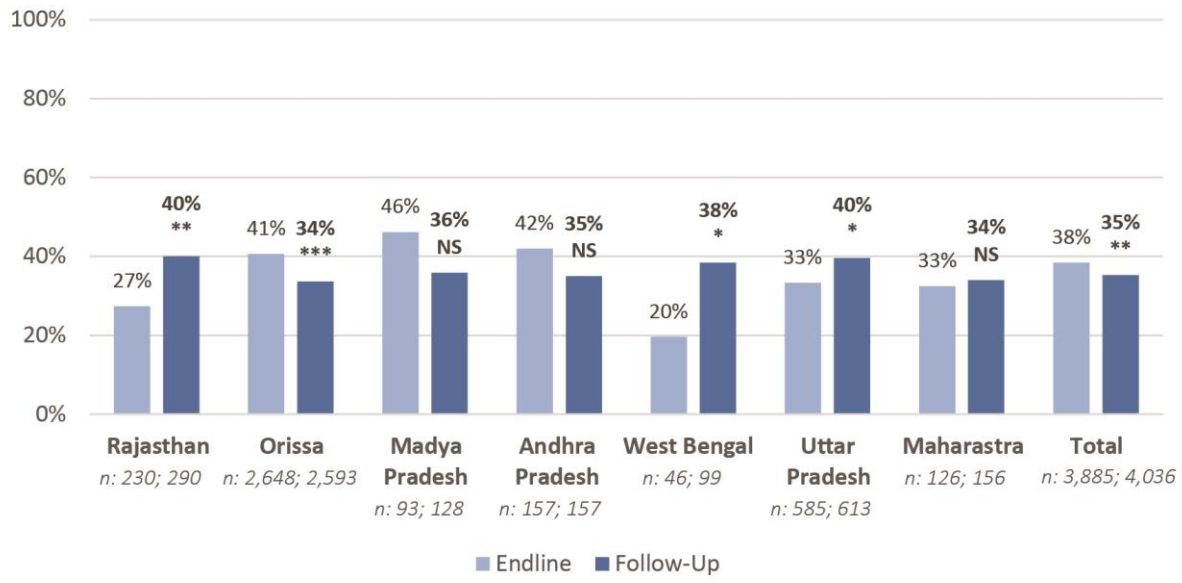
Significance from endline to follow-up: NS = not significant, ** significant at p < 0.01

Figure 5. Prevalence of Stunting from Baseline to Follow-Up among Children 6–24 Months of Age in Honduras



Significance from endline to follow-up: NS = not significant

Figure 6. Prevalence of Stunting from Endline to Follow-Up among Children 6–24 Months of Age in CRS Areas in India



Significance: NS = not significant, * significant at $p < 0.05$, ** significant at $p < 0.01$, *** significant at $p < 0.001$

In each country, sustainability of other indicators was variable. For example, in Honduras, provision and use of community-based growth monitoring declined from endline to follow-up, and use of some other health practices that had improved substantially between baseline and endline declined significantly in the following 2 years, including handwashing and increased provision of liquids during childhood diarrhea. However, during that same period, the practice of exclusive breastfeeding maintained its improvement from baseline to follow-up.

In the agriculture sector in Honduras, some outcomes that seemed very high at exit declined steeply over the next 2 years, while others that were not quite as high at exit were better maintained. For example, in ADRA areas, a number of outcomes, including the percentage of farmers engaged in agricultural sales, production of non-traditional crops, use of improved practices, and use of training were high at endline but fell to low percentages 2 years later. In contrast, in WV areas, agricultural sales were lower and fewer farmers were selling crops at exit, but these outcomes were maintained (any sale) or improved (sale of non-coffee commercial crops) 2 years later. Impacts such as income from agricultural sales and household dietary diversity showed a similar pattern. In ADRA areas, these impacts started out high but dropped significantly; in WV areas (for income and diet diversity) and in SC areas (for diet diversity), they started out lower at endline but improved significantly by follow-up.

In Bolivia in the MCHN sector, some health and hygiene practices, such as exclusive breastfeeding, showed significant improvement from baseline to endline, and those improvements were maintained or improved at follow-up. Similar to Honduras, practices in Bolivia related to handwashing and feeding during illness showed substantial improvements from baseline to endline but showed great declines—sometimes to below baseline levels (in the case of handwashing)—by the time of follow-up 2 years later. Similar examples can be cited from agriculture and NRM activities in the various projects in Bolivia. For example, the peak of agricultural income achieved by farmers in Bolivia in the final year of the project was substantially higher than at baseline but showed a significant decline at follow-up, although

comparison with baseline data shows that incomes were still much higher than they had been at the start of the project.

In Kenya, study data showed that certain improvements seen during the project, such as those among the community-based savings and loan groups, paravets, and some water committees, were maintained and even significantly improved 3 years post-exit. However, the majority of the achievements (e.g., in CHW service delivery, several health practices, nutrition outcomes, extension farmer service delivery, and agricultural commercialization) across the five sectors covered by the Kenya projects deteriorated between project exit and follow-up. Many of the declines were apparent soon after exit, at the time of the first round of qualitative data collection.

In CRS/India's health sector interventions, both receipt of antenatal care and institutional deliveries increased during the project and continued to improve significantly after the project ended. In CRS/India's watershed development interventions, total area cultivated, percentage of farmers with irrigated land, and percentage of land that was double-cropped increased throughout the life of the project, and those levels were sustained at follow-up. In contrast, the percentage of individual farmers engaged in double cropping fell significantly from endline to follow-up, and membership in watershed development committees, which had increased during the project, also fell significantly. Meanwhile, in the education sector, primary school retention rates (one of the key targets of the activity) were relatively high (close to 90 percent) throughout the life of the project and did not change appreciably at follow-up despite the loss of school feeding activities.

While the reasons diverge, the evidence makes it clear that a project's long-term success in sustaining its goals cannot be adequately judged at the time of the final evaluation alone, especially if the final evaluation strongly emphasizes meeting established endline targets without also assessing indicators of factors conducive to sustainability. Impact at exit and continued benefit over time are distinct achievements and require distinct indicators of the potential for sustainability. Additionally, given significant variability in the degree to which project activities, outcomes, and impacts were sustained, it is all the more important to understand what types of project design and implementation factors are more or less conducive to sustainable success in various contexts. The heterogeneity of results across the study countries offered the study team the opportunity to identify several such factors, which are described next.

Factors Linked to Sustainability

Three factors—resources, capacity, and motivation—were critical to achieving sustainability of service delivery and use, practices, and impacts. A fourth factor, linkages, was often critical, although not in every circumstance. Resources, capacity, and motivation are interrelated and synergistic; no project in this study achieved sustainability without all three of them in place before the end of the project. In most cases, linkages were also essential. The following is a summary of these factors and processes that can lead to sustained project benefits.

- **Resources.** By the time the projects withdrew, a sustained source of resources for each input previously provided by the project was required for sustainability. Resources could come from activities that were run profitably using a business model, funds secured through government operating budgets, funds provided by other donor agencies or nongovernmental organizations (NGOs), contributions by community members in cash or in kind, or other types of innovative finance. Resources in the form of profits (e.g., from agriculture or livestock sales or other income generation) or income from user fees (e.g., fee for service for piped or improved water sources and paravet services) encouraged sustained service delivery and also made it possible for some practices

(e.g., agriculture and livestock practices requiring purchased inputs) to be maintained. Required resources also included a continued source of technical support and training to ensure that capacity was maintained.

- **Capacity.** Building high-quality technical and managerial capacity throughout the service delivery chain and ensuring mechanisms to maintain that capacity was also of the utmost importance, enabling, for example, water committees to manage their finances and farmers individually or in PAs to negotiate contracts. Capacity building among individual beneficiaries—to implement improved child care, hygiene, or agricultural practices, and to manage their resources to do so—was similarly critical to sustained behavior change.

- **Motivation.** Ensuring a continued source of motivation for service providers and beneficiaries alike was imperative. The study found that financial incentives and in-kind benefits were the most successful motivators for service providers. Personal commitment, community service, and prestige were important but not sufficient to sustain active service delivery in the long run. For beneficiaries, the recognition of a tangible and immediate benefit provided the most effective motivation to continue making use of services or applying practices learned during the project.

- **Linkages.** This factor, especially vertical linkages (e.g., between community-based organizations or individuals and existing institutions or entities such as government ministries, NGOs, private sector commercial entities, or others), was usually critical for successful phase-over of responsibility for activities formerly supported by the projects. However, there were some circumstances where linkages were not essential. For example, they were not critical if community activities or individual behaviors were self-sustaining (containing within them provision for continued resources, capacity, and motivation so that external support was not necessary). As described later, the provision of piped water through the activities of water committees is one example of a self-sustaining intervention: motivation, capacity, and a flow of resources were part of each community's individual piped water system, making continued support to perpetuate these unnecessary.

Comparable examples from the MCHN and W&S sectors demonstrate the sustainability benefit of securing motivation, capacity, resources, and (sometimes) linkages. These examples also illustrate the consequences of failing to incorporate these key factors into project design and sustainability plans.

Maternal and Child Health and Nutrition

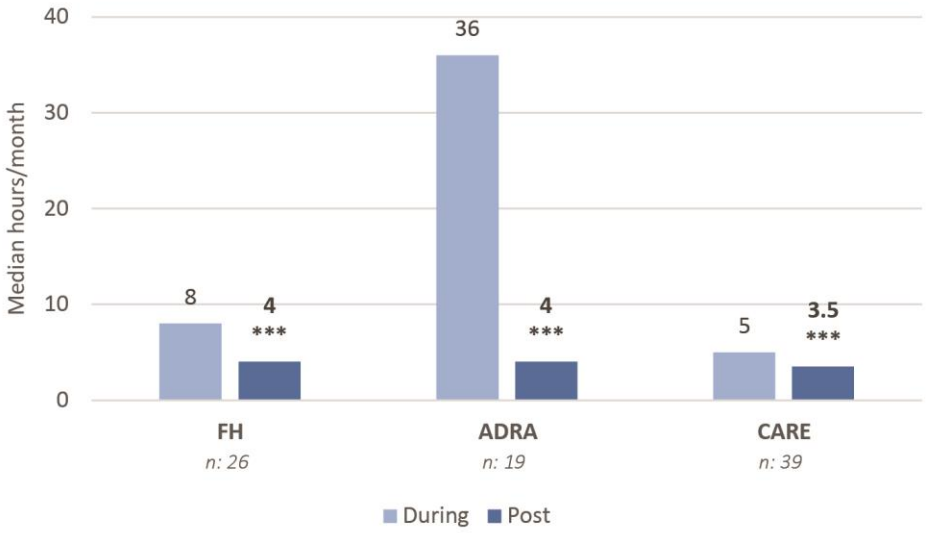
Study findings from the MCHN sector illustrate the importance of ensuring mechanisms for continued motivation, as well as capacity and resources, in sustaining the work of CHWs. Most of the projects studied assumed that phasing over supervisory responsibilities to linkage partners, such as local health centers, would guarantee continued CHW service delivery. However, the sustainable success of this approach was similarly dependent on the motivation, capacity, and resources of the linkage partner institutions.

In Kenya, the plan for project MCHN sector activities was to phase over supervisory responsibility for volunteer CHWs to the government, but this approach was unsuccessful because the Government of Kenya did not have adequate resources, capacity, or motivation at the community level to support the CHWs.[23] As a result, CHW service delivery began to decline soon after the projects ended. By the time of the follow-up surveys, CHWs were active in name only. They had dramatically reduced time spent in professional contact with people in their communities (see Figure 7) because they had no mechanism to

[23] Developments in Kenya since the end of this study suggest a government move toward greater decentralization of the health system.

maintain or improve their knowledge and technical capacity or to obtain resources for service delivery, such as weighing scales and growth charts. As community demand for CHW services declined due to the withdrawal of food resources and CHWs' lack of new and useful information to share, CHW motivation to work without compensation also deteriorated.

Figure 7. CHW Time Spent Providing Services During and Post Project in Kenya



Significance: *** significant at $p < 0.001$

In the health sector in Honduras, lack of resources from the government to sustain linkages with the government-run program of community-based comprehensive child care, which should have provided supervision, refresher training, and replenished supplies, resulted in reduced provision of growth monitoring services, despite the motivation of some CHWs and their technical capacity. In Bolivia, mothers' participation in growth monitoring activities remained relatively high after exit (despite some declines) because the government was providing these services with its own resources and motivating women not only with access to care but also with a conditional cash transfer and free nutritional supplements. However, this care was provided not through CHWs but at health clinics, which were generally located in nearby towns.

During project implementation in these two countries, CHWs were motivated by occasional material incentives (e.g., gifts such as backpacks, bicycles, chairs, cement for house repairs, and preferential access to health center services) and by beneficiary mothers' demand for their services. When CHW incentives were withdrawn and mothers were diverted to public health clinics for growth monitoring and other health interventions or reduced participation after withdrawal of rations, many CHWs lacked motivation to continue their work, although some repurposed their mothers' groups and continued meeting. Use of services provided at the clinic was maintained, but CHW home visits to promote good practices declined, and fewer community-based growth monitoring points were accessible to remaining interested beneficiaries. Generally, the awardees did not explicitly explain how they planned to sustain beneficiary demand for CHW services; rather, they (implicitly) made the assumption that having experienced the benefits of growth monitoring and counseling, the mothers would continue to seek and make use of these services.

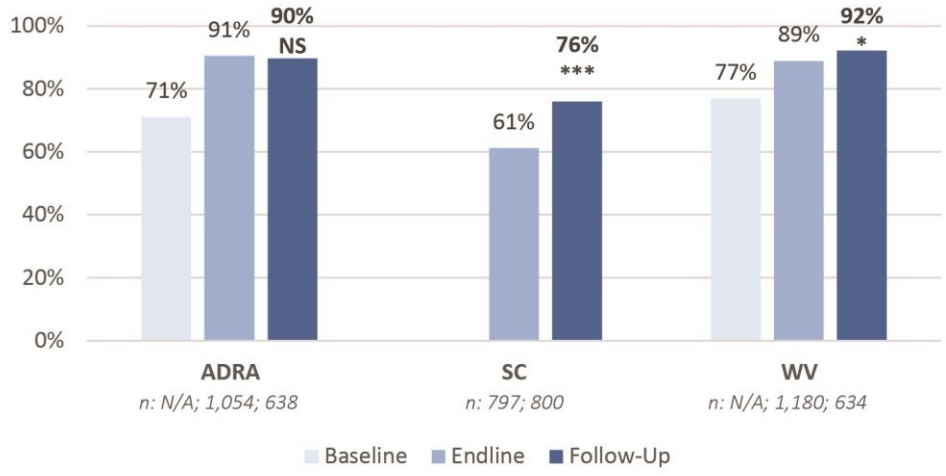
In India, CHWs used by the project—*anganwadi* (child care) workers and accredited social health activists (community workers whose job was to promote hospital delivery and prenatal and postnatal

care)—were staff paid by the government. These workers continued to provide community-based services post project as part of their employment duties when properly supervised. Notably, the performance of *anganwadi* workers, who were paid a set salary, was less consistent than that of accredited social health activist, who were paid only when they achieved specific goals (immunizations, hospital deliveries), reflecting a different structure for providing motivation.

Water and Sanitation

In the W&S sector in both Bolivia and Honduras, the provision of piped water was sustained after external funding was withdrawn because the projects incorporated all three elements—motivation, capacity, and resources—into their design. Beneficiaries were highly motivated to receive piped water, a valued service; this motivation made them willing to pay for the service, and these user fees provided resources to maintain the systems. In addition, water committees were well-trained in both technical and administrative aspects of managing the piped water systems. Figure 8 shows that the proportion of households in Honduras with piped water year-round increased from baseline to endline and was sustained or continued to improve at follow-up. Similar results were seen for the proportion of households with piped water in Bolivia.

Figure 8. Percentage of Households with Access to Year-Round Piped Water in Honduras



Significance from endline to follow-up: NS = not significant, * significant at $p < 0.05$, *** significant at $p < 0.001$

In contrast, maintenance of the microbiological quality of the water was not practiced in most of the water systems observed. Although the water committees had the resources and technical capacity to contract for water quality testing and to chlorinate water at the tank, motivation was lacking: beneficiaries did not recognize the need to improve the quality of water that appeared clean, and they disliked the chlorine taste that came with assuring water quality. Indeed, beneficiary resistance to chlorination appears to have led projects to stop this water quality intervention during the life of the project. Without motivation, capacity and resources were not sufficient to ensure the sustainability of water quality-related activities. Furthermore, linkages between water committees and institutions that could have provided water quality testing were not established at the time of exit. The awardees directly arranged for testing up until exit; as a result, the water committees did not have the opportunity to develop independent relationships with the institutions. Thus microbiological testing ceased once the awardees could longer take on that responsibility. In addition, water committees in Bolivia and Honduras avoided vertical linkages with municipal governments for fear the municipality would divert the resources obtained from user fees to

other uses, and water committees did not see a benefit to horizontal linkages among themselves. Aside from the issue of water quality testing, water committee and water system operation were well-sustained in both countries, without the need for linkages.

Role of Linkages

Linkages were not always as useful as expected. Linkages were more successful when their purpose and role in enhancing sustainability were explicit and when the linkage partner had the resources, capacity, and motivation to fulfill its role. The study found linkages were variably effective in promoting sustainability; their effectiveness depended on factors including the purpose of the linkage and the local context, even when they were an important component of the sustainability plan. In this study, linkages appeared to work better in some technical sector than in others because the critical factors of resources, capacity, and motivation were structurally embedded in the interventions (or not). Some examples included the agriculture sector, in which buyers were motivated to provide support to producers who supplied their product, and the W&S sector, in which the potential linkage partners (municipal governments) lacked resources and, in many cases, their motivation ran counter to that of the local water committees because of competing priorities. Often the entity to which the project's institutions were being linked did not have its own source of resources, capacity, and motivation to provide the support intended. Furthermore, the timing of linkage creation was important. When linkages were not initiated early enough in the project process, there was not sufficient time to build strong relationships, nor was there time to work out logistical, financial, or other issues that needed to be resolved in order for the link to be sustainably maintained after the project ended.

Types of Linkages

Horizontal linkages refer to relationships created among communities, groups, or individuals for support. For example, awardees promoted meetings of groups of CHWs from different communities to share information and mutual support; associations of community water committees were also encouraged to share experiences and solutions to problems.

Vertical linkages refer to the formal or informal relationships between individuals or communities and the government, NGOs, or other entities to provide support. For example, CHWs were often linked to the government health care system to provide supervision, training, and materials; PAs created contractual relationships with commercial entities such as exporters or wholesalers.

Awardees' sustainability plans generally did not incorporate any explicit linkage or coordination with other USAID- or U.S. Department of Agriculture-funded development initiatives that might have allowed for a continuation of support for FFP activities that were consistent with the goals and priorities of these other interventions. In a number of post-project instances, though, former FFP awardees continued to operate in the same area (although not usually in the same communities), using their own resources, some of which might have come from other such funding sources.

Across most sectors in all study countries, horizontal linkages proved difficult to sustain and were not typically necessary for sustainability. In Honduras, for example, a network of horizontal linkages among CHWs from different communities was envisioned as a means for them to share information and support, yet it never developed into a useful mechanism for keeping CHWs working. One reason for this, which the study team heard in qualitative discussions, was that the CHWs had no funds to cover transportation to CHW meetings outside their communities. In Honduras and Kenya, PAs were intended to link farmers horizontally in a given community; however, the PAs attracted a relatively low level of farmer

participation, as most farmers tended to sell their produce individually rather than collectively. As mentioned earlier, water committees expressed no interest in forming associations with committees from other communities, as they felt capable and self-sufficient. By contrast, vertical linkages to government, other donors, and/or the private sector often proved to be important across the study projects to ensure that resources, capacity, and motivation, were maintained.

Government Linkages

Linkages to government entities were only as effective as the government's own ability and commitment to support associated activities. As is the case with individual service providers, beneficiaries, and community-based organizations, linkage partners must have the resources, capacity, and motivation to provide needed support.

In the Kenya context, plans to phase over responsibility for support of community activities from the project to government entities were generally unsuccessful. Across all study projects in Kenya, the government's ability to support health system outreach to CHWs eroded over the 2 years after project exit. When FFP projects exited Kenya, the health system was still very centralized, and the awardees' hope of transferring responsibility for trained CHWs from the project to the government was not supported by a detailed plan for a gradual transition. Qualitative information collected at follow-up indicated that government entities were not always aware of the projects' intentions before exit and, in instances when they were aware, the government entity that was identified to maintain oversight of the CHWs did not have the resources, capacity, or higher-level institutional support to absorb these volunteer frontline workers. As a result, the hoped-for linkage between the government and CHWs was not effective by the time of the follow-up study. However, as noted previously, developments in Kenya since this study ended suggest a move toward greater government decentralization.

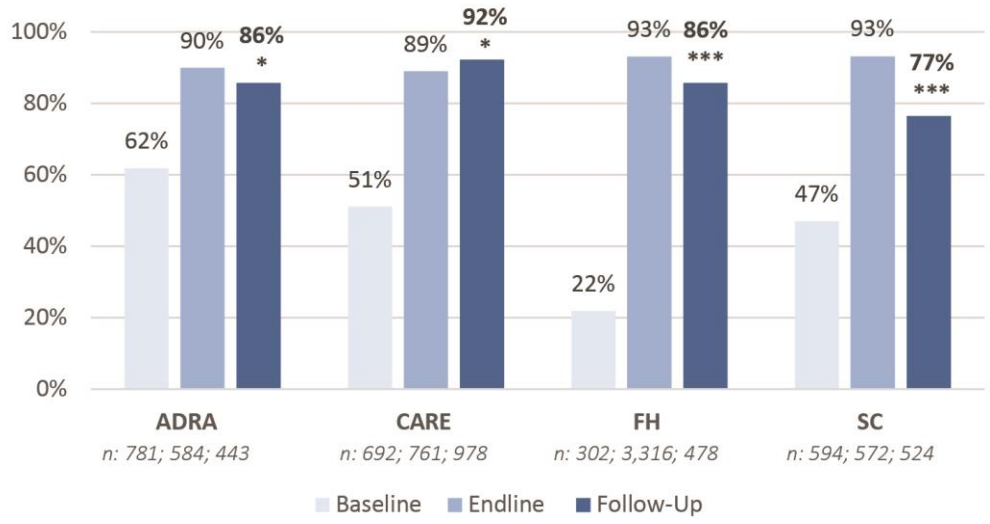
Similarly, in Honduras the projects' strategy for sustainability was to establish linkages to the public health system. The central government was committed to providing decentralized services; however, these commitments were not consistently met over time, reflecting the resource constraints and shifting priorities that the government faced (and that were possibly exacerbated by funding constraints in the wake of the 2009 political crisis occurring while the FFP projects were ending). At the time of the follow-up survey, government health centers were present in 43–66 percent of communities in the three former project areas. Communities where a health center was present at follow-up were twice as likely to have a CHW as those where the government program was not operating: between 90–97 percent of communities with a government health program had a working CHW, whereas 47–62 percent of communities without the government program had one. All of these communities had CHWs through the FFP projects at the time of exit, but without the health center connection, they were not all able to sustain CHW service delivery after exit.

In the case of Bolivia as well, the sustainability plan was to link CHWs with government health services to support community-based activities. Before FFP projects exited, the Government of Bolivia had begun to implement a "Zero Malnutrition" program, which created comprehensive nutrition units within health centers in every municipality. These nutrition units provided growth monitoring and nutritional supplements (micronutrient supplements and, if paid for by the municipality, a complementary food similar to the corn-soy blend provided by FFP). About the time of the FFP projects' exit (but unrelated to the FFP projects), the government also implemented a conditional cash transfer program that gave money to women who complied with growth monitoring, antenatal care, and postnatal care norms at government health clinics. Provision of these antenatal and postnatal services through the nutrition units was expanding at the time of the follow-up survey. As a result, a high proportion of women (those who would have been eligible FFP project beneficiaries if the projects had continued) were taking advantage of the

conditional cash transfer (about 75 percent of mothers of children under 5 years of age in ADRA and SC areas, and more than 50 percent in CARE and FH areas).

Participation in growth monitoring did decline somewhat from endline to follow-up in three of the four implementing organizations' areas in Bolivia, but was maintained at a substantially higher level than baseline (see Figure 9). In FH and SC areas, the majority of women were taking their children to a health center or clinic for growth monitoring at follow-up; in ADRA areas, 75 percent were going to growth monitoring in their communities.[24] In cases where the health centers maintained a connection with the project-trained CHWs, CHWs had the resources, access to training (capacity strengthening), and motivation (due to the supervision and demonstrated interest of the health center staff) that enabled them to continue to do their jobs. However, government health services were not always linked to a CHW. Some municipalities did not prioritize resources to support CHW services, preferring instead to support more visible and politically beneficial investments, such as the creation of additional comprehensive nutrition units. As a result, these communities may not have benefited from the home visits and personal encouragement to implement improved practices that CHWs used to provide.

Figure 9. Percentage of Households with Children 3–35 Months of Age Participating in Growth Monitoring in Bolivia



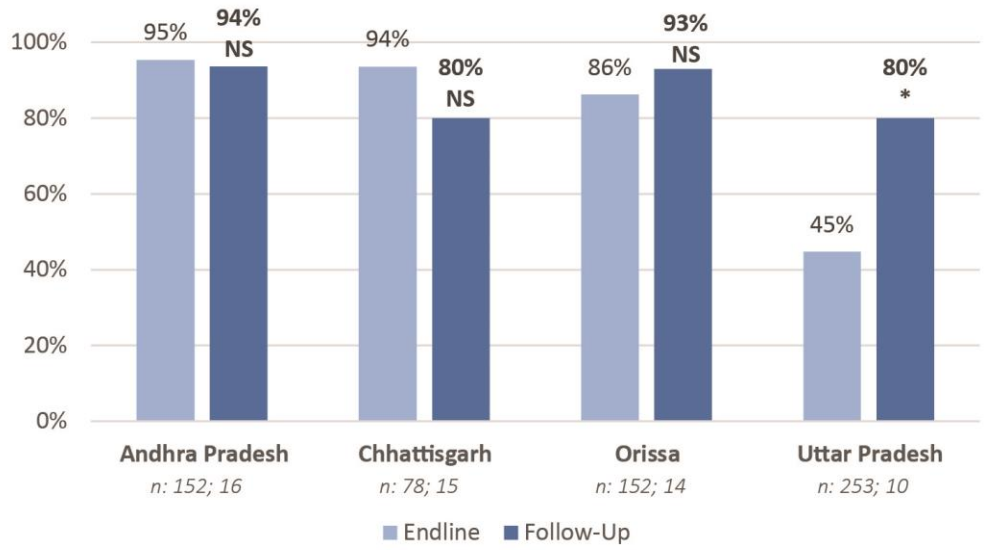
Significance from endline to follow-up: * significant at $p < 0.05$, *** significant at $p < 0.001$

In India, the phase-over of responsibility to national government programs was effective in the case of supplementary feeding but not in the case of school-feeding (the latter through the midday meals program), due to varying levels of government commitment. The government took over provision of supplementary food, which consisted of take-home rations distributed at community nutrition and health days and food provided in *anganwadi* (child care) centers, a benefit that had been provided through FFP until 2007.[25] Government provision of food to the *anganwadi* centers was maintained or increased in all four states studied at follow-up, as shown in Figure 10, since the government had the resources, capacity (an already existing supply chain), and motivation (commitment) to provide this benefit. In contrast, CRS had hoped to phase over school feeding to the Indian government's midday meals program, but no

[24] Growth monitoring location information was not available for the CARE project in Bolivia.
[25] The Government of India stopped import of a U.S.-provided supplementary food (corn-soy blend) in 2007 as a result of a new policy banning import of genetically modified foods.

agreement was put in place to implement this shift. The phase-over was unsuccessful, not because of a lack of resources or capacity, but because the government had no motivation to provide these meals to the private or parochial schools the FFP project had targeted, although there were no regulations against it.

Figure 10. Percentage of Anganwadi Centers Reporting an Uninterrupted Food Supply for the Previous 6 Months, by State (CARE/India)



Significance: NS = not significant, * significant at $p < 0.05$

As demonstrated by these examples, engaging government in a phase-over of responsibility for FFP activities worked in a limited number of cases, when awardees were able to make a realistic assessment of the (central and municipal) government's own resources, capacity, and motivation and ensure that government involvement was part of a broader sustainability strategy. Phase-over to government entities worked better when the exit strategy allowed ample time to build, test, refine, and consolidate these linkages before project exit was complete and to ensure government commitment.

Linkages to Other Donors and NGOs

In a number of study areas, new NGOs either took over activities formerly implemented by FFP projects or initiated similar activities in their place. New NGOs were active in starting health projects, providing technical assistance to farmers, contributing to agriculture initiatives (such as strengthening irrigation and provision of inputs), and supporting the development of small enterprises. In Honduras, one FFP implementing organization's exit strategy included phase-over to other donors and implementing agencies as an explicit element. In Bolivia, a detailed part of all the projects' sustainability plans was the involvement of other donors in sustaining FFP-initiated activities.

This strategy had some success. In a number of communities visited in Bolivia, different NGOs were implementing health-related activities (although not always with the same nutrition priorities as the FFP projects); some of these NGOs had taken on the CHWs trained by FFP projects. The head of the health directorate in Camargo reported, "We now have other NGOs, like Plan International and Esperanza Bolivia, and they continue to strengthen the [ADRA MCHN] projects so that they won't be investments made in vain. These NGOs work with the same CHWs in the majority of communities, but we need to find a way to ensure their [CHWs'] work will be sustained once Plan and its financial incentives

withdraw." However, in the quantitative follow-up community survey, a relatively small percentage of communities reported implementation of any new health projects since FFP projects in the country ended.

In the agriculture sector, PAs reported in qualitative interviews that they received support from bilateral government donors and international and local NGOs at follow-up—in Bolivia, 16 of the 26 PAs interviewed were receiving such support. These donors were providing a wide range of technical assistance as well as inputs, credit, and links to markets. In many cases, this assistance from NGOs other than the FFP awardees was explicitly aimed at PAs that were already demonstrating success, in order to promote economic development in the region.

In some cases, funding for FFP projects ended before all activities/entities were fully transitioned to self-sustaining independence. In such circumstances, a new donor committed to creating sustainable systems with an eye toward gradual exit may offer the additional time and resources needed to accomplish this goal. More often, though, new donors arrived with new priorities and/or approaches that did not consistently build on the successes of their predecessors. A sustainability plan based on the expectation of continued external donor support is riskier than, and often counterproductive to, one that seeks to build internally resilient, sustainable solutions.

Private-Sector Linkages

Across all countries, private-sector linkages developed during the course of a project were often well-sustained and, in turn, helped to sustain agricultural marketing activities introduced as project initiatives. Such vertical linkages to the private sector worked only when they were mutually beneficial. When farmers were unable to meet the quantity and quality demands of buyers, they lost their contracts and, with them, access to the services the buyers might have provided.

In Honduras, the most successful agriculture/NRM projects were those that strengthened the market linkages of coffee producers. These projects worked to link producers to the private sector so that farmers would continue to receive technical assistance, credit for inputs, and market information once the projects exited. People working in the private sector had the needed elements of resources, capacity, and motivation to provide this support. Their resources came from for-profit marketing arrangements; their capacity stemmed from connections to agronomists/extension agents whom they hired to work with farmers; and their motivation was the assurance of a steady, high-quality supply of produce. A number of the Bolivian PAs also established long-term contracts with buyers (e.g., Pil Andino for dairy producers and Windsor Tea for apple producers). These contracts meant producers were assured of a market; in some cases, technical assistance and credit for inputs were also provided by means of these private-sector linkages.

In Kenya, linkages to the private sector were successful when projects were allowed enough time to cement relationships and demonstrate to farmers the benefits of market-oriented approaches. For instance, during qualitative interviews in the first round of data collection, CARE staff explained that it took longer than anticipated to sensitize the community to shift from subsistence farming to commercial crops. CARE key informants reported that they did not have enough time to solidify the market linkages for the horticulture (commercial) PAs, and thus the PAs did not have sufficient time to operate independently to iron out value chain and contractual challenges before the project closed. This affected not only the PAs' ability to generate future contracts with potential buyers, but also their input supply relationships and access to market information. By contrast, the basmati rice associations that CARE supported in Kenya reported that they maintained their buyer linkages (e.g., to the National Cereals Board) as they had more time for gradual independent operation before CARE's exit. Although time for gradual operation was cited as a key factor, other characteristics of rice farming (e.g., rice is a more durable crop) likely gave

them a comparative advantage over horticultural farmers in adopting and sustaining marketing practices. CARE gradually reduced its involvement in negotiating contracts and prices across each rice harvest during project implementation, and the PAs were operating independently long before CARE's exit from the area at project end. This illustrates the importance of graduated independent operation to ensure that linkages to entities such as the private sector are robust before the end of a project to improve the likelihood of sustainable results.

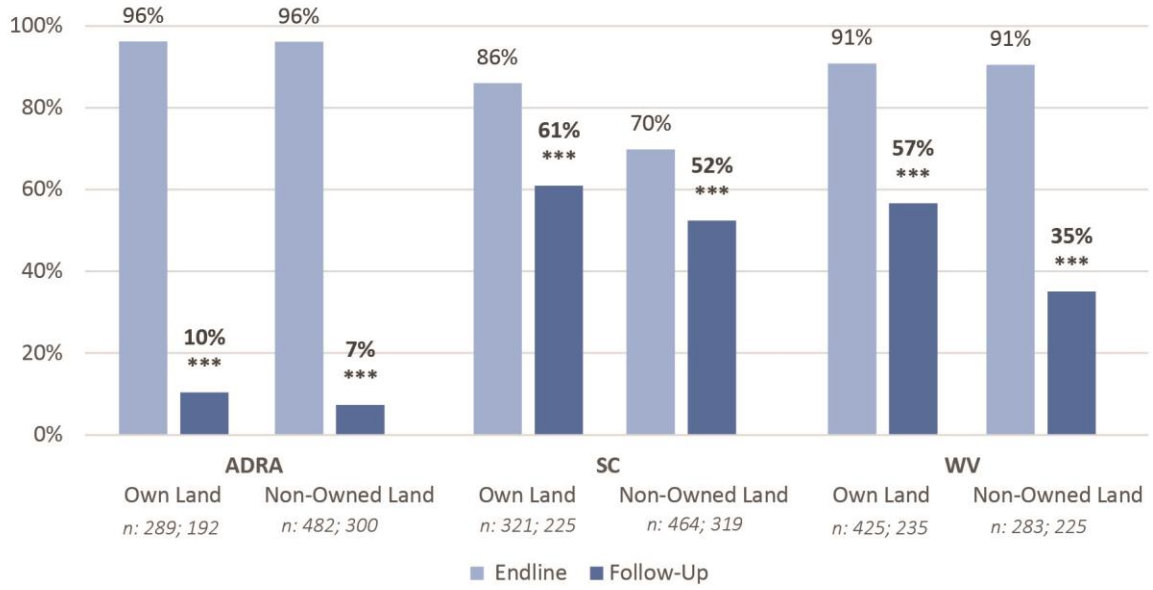
The Role of Context

External conditions affected project success and sustainability. Not surprisingly, local and national economic, political, agro-climatic, and cultural contexts profoundly affect how projects are implemented and their ultimate sustainability. In addition, most beneficiary populations in FFP countries are vulnerable to multiple shocks. In fact, this is often the primary reason for food security programming in these environments. FFP projects are more likely to achieve sustainable benefits if they have built contextually appropriate resilience, preparedness, and contingency strategies into their sustainability planning so that development gains are not eroded. It is counterproductive to invest in development strategies where the durability of their success is extremely vulnerable to a range of high-probability shocks or other events that are not also being accounted for in programming.

Many shocks, such as recurrent drought in the Horn of Africa, are periodic and predictable. However, in Kenya, most sustainability plans did not adequately take external shocks, particularly recurring shocks such as drought, into account. Thus, the sustainability of project impacts, such as improvements in child stunting and wasting, was adversely affected by intermittent drought episodes toward the end of the FFP project cycle in 2008, in 2009 after the project had ended, and especially during the food emergency in northern Kenya in 2011. The projects' impacts might have been more sustainable if the projects had also introduced individual, household, and/or community risk-coping mechanisms such as warehouse receipts or crop insurance as part of their design. Crop insurance for smallholders has been introduced in Kenya, and is currently supported by the government in Honduras, as it is increasingly in other countries. Other external factors in Kenya, such as the centralized nature of the health system, clearly had a role in affecting the (lack of) sustainability of the projects' health interventions.

In the agricultural sector in Honduras, external factors such as landlessness, the international economy, and government bureaucratic procedures played a role in sustainability. For example, with a high proportion of farmers cultivating land they did not own, motivation to implement long-term improvements on the land was reduced. At the time of follow-up, about 54 percent of farmers in ADRA and SC areas and 42 percent of farmers in WV areas produced only on rented, borrowed, or sharecropped land. While improved agricultural practices fell from endline to follow-up in all groups, farmers who owned their land were more likely to implement these practices than those who did not. These relationships are shown in Figure 11.

Figure 11. Percentage of Farmers Using at Least 20 Percent of Promoted Agricultural and NRM Practices, by Land Ownership in Honduras



Significance: *** significant at p < 0.001

The international economy can also influence the sustainability of outcomes. In WV areas in Honduras, the cultivation and commercialization of coffee was initially a success, improving incomes and diets of participating households. But the study team saw that the significant income gains among coffee producers measured in 2011 would have been much attenuated if 2013 prices had been used instead. Dependence on marketing an internationally traded crop like coffee makes farmers vulnerable to fluctuations in international prices, calling for a continued emphasis on forms of risk management such as crop diversification, crop insurance,[26] or other mechanisms.

With regard to the political context, bureaucratic procedures in government regulation of business enterprises in Honduras were difficult to overcome in many cases. The process of applying for legal recognition, essential for the function and expansion of a business, is cumbersome, lengthy, and unreliable. As a result, some small enterprises that had the resources for operation, technical and management capacity, and motivation were unable to expand further due to their inability to obtain legal recognition within the timeframe of the FFP project. Study findings indicated that a much longer lead time and perhaps better training of beneficiaries on how to negotiate complex legal systems would have been needed to pass the hurdle of obtaining legal recognition for small businesses before project end.

Political, economic, and cultural contexts can also be a facilitating force for project sustainability. For instance, the Government of Bolivia demonstrated a commitment to decentralizing governance and service delivery, and this commitment resulted in the creation of highly participatory local- and municipal-level institutions that aligned with FFP project priorities, creating a context for sustainability. The Bolivian health system not only provided decentralized health and nutrition services through clinics and comprehensive nutrition units, but also had a mechanism for adjusting services to meet local needs through a decentralized community governance system. For example, government programs supported

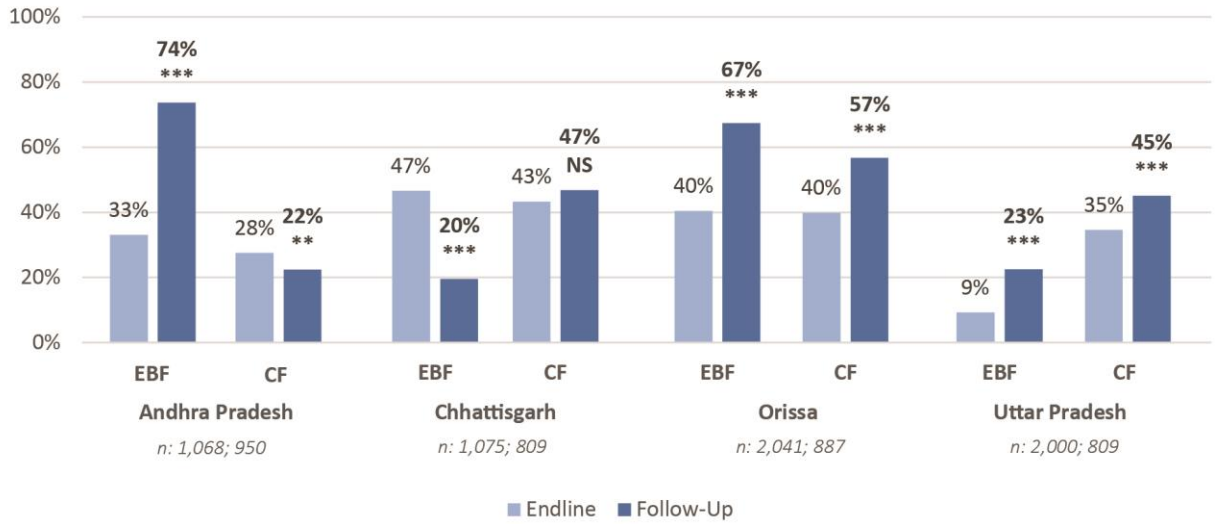
[26] Crop insurance had been promoted by the Ministry of Agriculture in Honduras since 2008.

(sometimes with donor funding) the continued expansion of piped water systems to new communities, as well as the construction of latrines. Municipal governments also had economic development units whose goal was to promote economic activity (such as PAs) in their areas. One corollary to this policy of community involvement is the expectation of transparency and accountability on the part of community organizations. This expectation extended to the monthly meetings of many water committees, at which accounts were presented so the community could be confident about the amount and uses of the fees that were paid.

In addition, the Bolivian rural culture is strongly communitarian. Community members are accustomed to providing labor on community projects, such as road maintenance and gully repair. Communities have "vigilance committees" that seek to ensure responsible community behavior, making the idea of home visits to check on sanitation, latrine use, and health practices less alien in these settings than it might be in other countries or cultures. This cultural context means that activities that might not have realistically been expected to continue in some places were more feasible in this setting. Factors such as these need to be accounted for at the project design stage so that implementation and sustainability strategies can be appropriately adapted to context and expectations can be managed and communicated accordingly.

In India, regional, political, economic, and cultural differences appeared to influence the sustainability of project benefits more than the project interventions themselves. Because the country is vast and highly varied, the implementation of any project carried out at the local level depends on the commitment and capacity of local institutions and individuals. As shown in Figure 12, changes in mothers' feeding practices over time within each state were much smaller than state-to-state differences at either time point, and there was no consistency by state in whether a particular indicator improved or declined: different indicators showed a decline or improvement over time in different states. This was true across all indicators measured for the India study; no state was consistently better or worse at sustaining outcomes and impacts across all sectors and, with few exceptions, no single indicator was consistently sustained in all states. Any effort to calculate aggregated (all state) indicators of sustainability masked this tremendous state-by-state variability.

Figure 12. Percentage of Mothers of Children under 6 Months of Age Exclusively Breastfeeding (EBF) and Percentage of Timely Introduction of Complementary Feeding (CF) at 6–10 Months of Age, CARE Areas in India



Significance: NS = not significant, ** significant at $p < 0.01$, *** significant at $p < 0.001$

Across countries, in some cases economic, cultural, and/or political factors aligned by sector, making certain sustainability models more feasible in some sectors than in others. For example, the sustainability of service delivery in the health sector was more challenging across countries because of the interaction of cultural perspectives with sector-specific constraints. Although a fee-based model was untested in these country studies, such a model was apparently never considered: qualitative discussions suggested that beneficiaries' willingness to pay for primary preventive health services was low due to the low value placed on preventive care in some contexts and the widespread belief that such services should be free. In general, the profit incentives for sustained behavior adoption that were possible in the agriculture sector did not easily translate to health, except indirectly in terms of the potential for higher future earnings from improved health and averted disability, and these factors are likely too indirect and long term to be effective motivators.

On one hand, it could be argued that, in these cases, the role of "context" superseded the effects of the project to ensure lasting benefits. However, the authors maintain that taking into account such contextual features in the design phase is in the purview of a project. To the extent possible, plans for sustaining resources, capacity, motivation, and linkages must be developed with a clear understanding of the system, acknowledging that some local systems will be more conducive to sustainability programming than others. The Kenyan government is in the midst of one of "the most rapid and ambitious devolution processes going on in the world."[27] Projects operating in this evolving Kenyan context may experience newfound opportunities to collaborate with local governments in phasing over responsibility for oversight of CHWs; this new system will also present new challenges. Contextual constraints have to be assessed carefully, and thoughtful innovation must be applied to overcome them. It is necessary, in even the most challenging circumstances, to give serious attention to the sustainability assumptions that might not be met in order to discern the best use of resources for making progress toward sustainable change.

Quality of Inputs

The quality of inputs and infrastructure created during the life of the projects was an important contributor to their usefulness and, thus, to their sustainability. It is perhaps obvious, but nonetheless worth mentioning, that high-quality inputs are essential to the long-term functioning of infrastructure constructed under a project. In Bolivia, for instance, the study team heard frequently from water committee members and beneficiaries that the quality of the pipes and connections and the adequacy of the water source were important contributors to the sustainability of the system, not only because use of high-quality inputs made the system less likely to break down but also because more reliable systems resulted in beneficiaries being more willing to pay for the services they received. Water consumers in Kenya responded similarly: they were less likely to continue paying for water when the water supply was unreliable or of poor quality. In a few cases in Bolivia, committee members noted that previous water interventions implemented by other donors had provided inferior quality pipes that broke, and the system had not been set up to provide resources for repairs. Similarly, the small reservoirs for watering livestock (in Bolivia) that were constructed and designed well (close to a reliable water source, accessible to the livestock that would use it) were maintained and repaired when necessary by the community, while those that were less well-designed were perceived as less useful and were often abandoned when they broke.

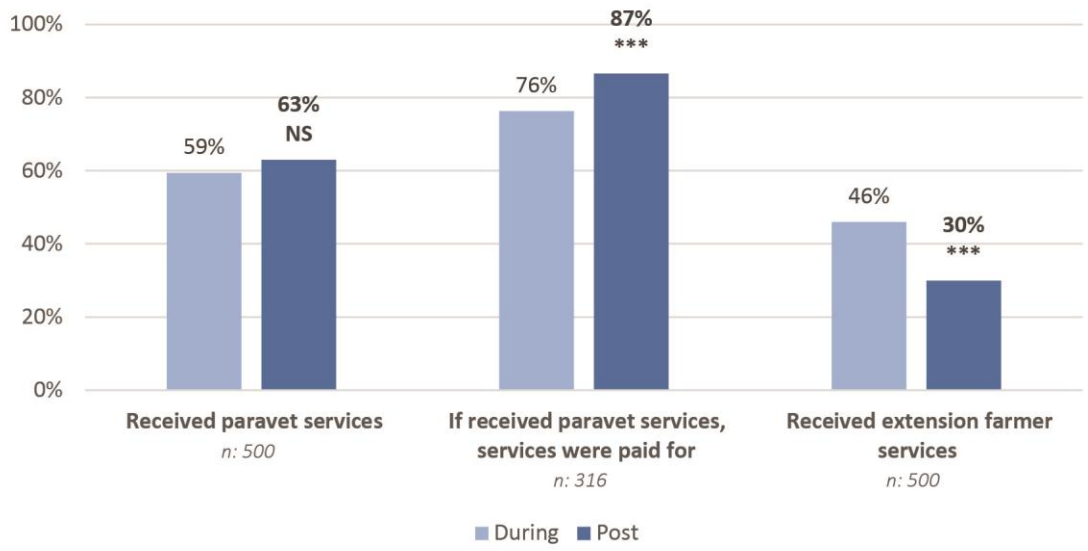
[27] The World Bank. 2015. "Kenya's Devolution." Available at: http://www.worldbank.org/en/country/kenya/brief/kenyas-devolution (accessed August 15, 2015).

Fee-for-Service Models

When designed appropriately for the context, fee-for-service and profit models were often effective mechanisms for generating sustained resources. While fee-for-service models are useful approaches to sustainable resource generation, they are not a panacea. These approaches must be introduced early, require solid business acumen and effective demand, and are not equally feasible in every sector. In Kenya, paravets, tree seedling producers, and seed multipliers who charged fees for their services to cover their costs from the very beginning of the project saw sustained use of their services after exit and continued to earn a profit. The fee-for-service model for paravets in FH areas of Bolivia similarly provided the motivation and resources for these paravets to provide services on which they had been technically trained.

By contrast, extension farmers in Kenya saw a decline in service use after the end of the project. They were instructed to begin charging for their services only at the time of exit. By that point, beneficiaries had become accustomed to receiving free extension services and resisted paying. Beneficiaries also felt that extension farmer services were not worth paying for, as they were no longer connected to new, valued sources of information. Figure 13 shows that ADRA paravet services continued to be used, while ADRA extension farmers—no longer remunerated by the project and unable to be paid by the farmers—provided services to fewer households at follow-up.

Figure 13. Sustainability of ADRA Paravet and Extension Farmer Service Use During- and Post-Project in Kenya



Significance: NS = not significant, *** significant at $p < 0.001$

In Bolivia, Honduras, and Kenya, water management committees were structured from the beginning to charge a fee for water usage. Although committee members were unpaid, the revenue generated through fees provided committees with the resources needed to cover maintenance and operating costs. The fee-for-service model for household water in both Honduras and Bolivia worked well because the quality of the infrastructure was good, systems were well-maintained, water services were reliable despite periods of mild drought, and beneficiary demand (and willingness to pay) for piped water into the home was consequently strong. In contrast, water committees in some project areas in Kenya could not enforce user

fee collection because demand had dropped with a decline in the water supply's reliability and quality. In addition, water sources in these areas were boreholes located some distance from people's dwellings, which did not provide as much added benefit to households as piped water.

The fee-for-service model for water use for irrigation did not prove to be workable in India. The watershed development committees formed and trained by CRS were expected to charge fees for the use of irrigation water coming from the infrastructure built with food-for-work in order to maintain the system. Farmers, though, did not consider it acceptable to pay for water, which was considered a free resource. In many cases, the water development committees maintained the irrigation infrastructure, but they did so using labor from the national guaranteed employment scheme, volunteer labor, and financial contributions from participating farmers—not user fees. Similarly, the fee-for-service model was not used in the context of MCHN services in any of the study countries because beneficiaries believed that health care from the government health system should be free.

These types of fee-for-service models may have more potential for sustainability than other strategies under many circumstances. However, fee-for-service activities, as with any new business, are risky and prone to failure. Effective demand is critical, and several factors, such as external threats to supply, high price of inputs, debt, and environmental conditions, can threaten the viability of a business. These risks were illustrated in Kenya, where the businesses of tree seedling producers, seed multipliers, and paravets all suffered during droughts that occurred both during and after project implementation. That said, when conditions are right, the fee-for-service model can contribute to the sustainability of service delivery and service use.

Sustained Project Benefits vs. Expansion to New Beneficiaries

Ensuring that project benefits will reach new beneficiaries and communities after exit appeared more challenging than ensuring persistence of benefits among project participants. Sustainability can be defined in two ways: (1) maintaining (and improving) project activities, practices, and impacts among the original target population and (2) expanding the benefits of the project to new beneficiaries or communities.

Original Beneficiaries. Sustainability at the individual beneficiary level was seen in at least three forms in the projects studied. The first form involved lasting benefits from project investments, whether or not the investments resulted in modified behavior after the project ended. The best example of this was investment in preventing malnutrition or treating disease in young children to achieve long-lasting gains in cognitive development, productivity, and health in those children. A second form of sustainability at the individual level involved the continued practice post-project of improved behaviors learned during projects, sometimes even without continued promotion by project staff, such as (in Kenya) water purification and use of dish racks. For the third form of individual-level sustainability, individuals drew on resources or knowledge gained through the project to independently innovate, deepen knowledge, or capitalize on investments made during the projects. There are several examples of this from Kenya: at the Horr Ghuda Spring in the FH area of North Horr, the community decided to introduce new plantings far beyond the initial boundaries created during the project to "roll back" the Chalbi Desert in order to restore grazing lands; basmati rice farmers in the former CARE project area tracked down former CARE project officers who were working for a credit union so they could access new sources of finance; and the capacity of ADRA- and FH-trained paravets to carry out their jobs grew more sophisticated with time and practice. In Bolivia, there were examples of PAs that expanded their product mix and entered into new contracts in the years after project exit. In these examples from across all three awardees, individuals used

the initial project investment to catalyze and multiply its benefits. Similar indications of sustained benefits for original beneficiaries were observed in the Honduras projects.

New Beneficiaries. In all study countries, there were examples of benefits expanding beyond the beneficiaries directly targeted by the projects to other individuals or groups. Such expansion also took three main forms. In the first form, trained resource persons continued to offer services, reaching individuals who had not participated in the project. In the second form, new individuals were reached through horizontal, peer-to-peer dissemination of practices, or through horizontal and vertical linkages that resulted in the extension of benefits to new individuals. For example, in Kenya community savings groups continued to subdivide and grow, often with older members training new members. In Bolivia, some of the more successful PAs formed vertical linkages with larger regional associations and drew in new member farmers and communities through horizontal linkages to meet the growing demand for their products, thus extending benefits to new individuals not previously reached by the projects. This was the case for a dairy association initially supported by SC in Bolivia, which had a contract with Pil Andino and benefited from incorporating new producers from different communities. The third form involved inter-household or intergenerational transfer of practices and knowledge. In Kenya, women in Marsabit District reported teaching their daughters the birth spacing and health and hygiene practices that they found beneficial. In Bolivia, farmers in Sapahaqui who had not been trained by the project and were not in a PA nonetheless copied agricultural techniques that they observed to improve the quality of produce among farmers who had been trained.

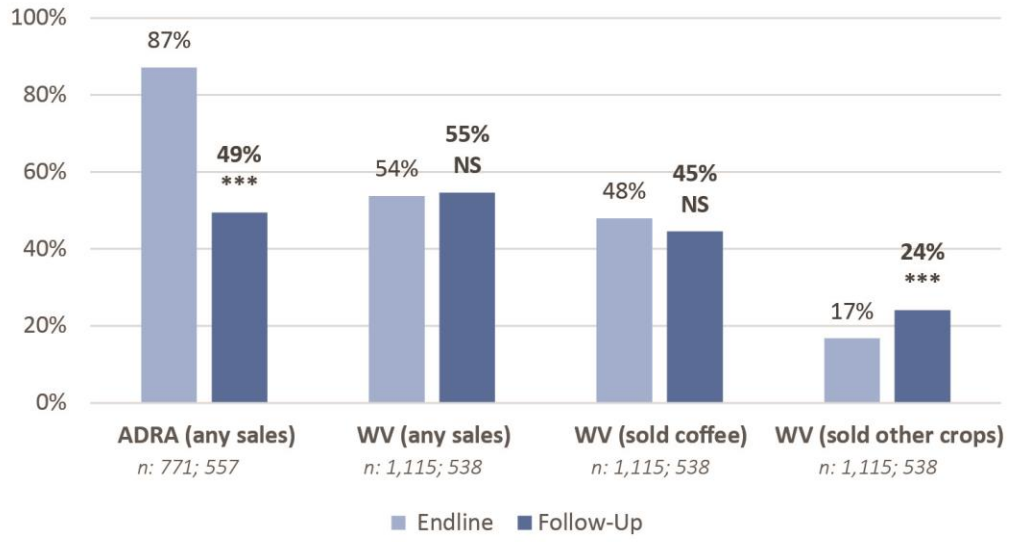
Focusing on achieving impact only during the project period can compromise both sustainability and expansion. For example, providing free farm-to-market transportation to beneficiary farmers until the time of project exit, as was done by ADRA in Bolivia, increased farmer access to markets in the short run but did not build farmers' capacity to organize their own transportation, which could potentially benefit not only themselves but also other farmers in the area. Ensuring that benefits continue to reach an expanding number of individuals after a project ends requires putting mechanisms in place before exit for sustained service delivery afterwards. This can be more time consuming and less easily quantifiable than directly delivering benefits that yield individual-level, shorter-term impacts. Currently, awardees tend to be rewarded for the latter, since they are judged based on their endline evaluations, which document achievements with respect to impact indicators. As demonstrated in examples throughout this report, this may jeopardize sustainability and—to a greater degree—expansion. The focus on demonstrating impact and the lack of focus on demonstrating the potential for sustainability implicitly de-emphasize sustainability. From a sustainability perspective, project investments that can generate expansion of project-related benefits to new individuals are preferred, yet awardees may find themselves weighing the costs and feasibility of such investments against the need to show impact at the time of the endline evaluation.

Transition of Activities

A gradual transition from project-supported activities to independent operation was important for sustainability. Across the study countries, the study team found that activities and impacts were more likely to be sustained if awardees exited gradually. The ideal gradual exit allowed project-trained service providers to "practice" independent operations while the awardee was still present to backstop them. The approach also offered beneficiaries the opportunity to build relationships gradually in preparation for phase-over and to identify replacement resources for the external resources that were to be removed when the project exited from the activity.

In Honduras, for example, project-trained CHWs who had been actively participating in government health activities and receiving visits, supervision, and training from the government health center staff before exit were more likely (based on qualitative observations 1 year after exit) to continue functioning in their communities than those who were abruptly shifted from project to government health center supervision and training at the time of exit. In the agriculture sector, well-established independent linkages with markets were key to the longer-term success of coffee commercialization and women's dairy marketing enterprise in Copán (both in WV areas). Qualitative discussions with farmers also showed that farmers in WV and SC areas, where withdrawal was gradual (farmers had at least 1 year of independent operation), were more likely to report agricultural sales than those in ADRA areas, where services were withdrawn only at the time of exit. Figure 14 shows that participation in agricultural sales fell significantly between endline and follow-up in ADRA areas; the percent selling in WV areas, while lower at endline, was sustained at follow-up.

Figure 14. Farmers Engaging in Agricultural Commercialization in Honduras

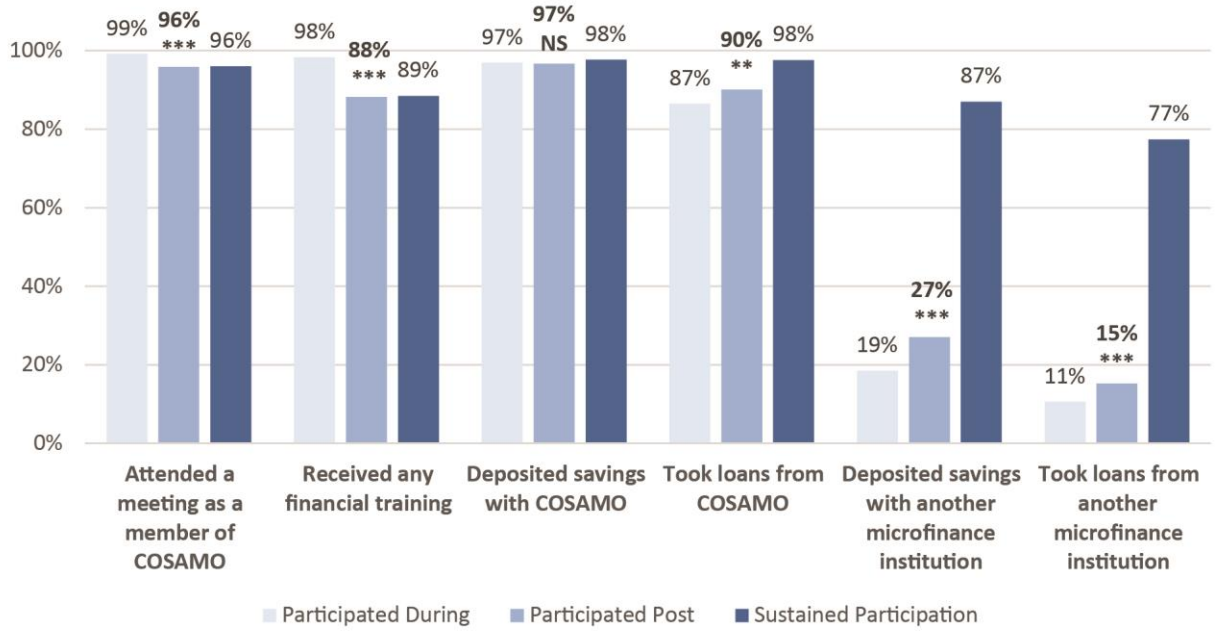


Note: SC not shown because endline data were missing.
Significance: NS = not significant, *** significant at p < 0.001

The principle of a gradual exit, with a period of transition to independent operation, was further illustrated by the mixed experience of the W&S sector interventions in Bolivia and Honduras. The most well-sustained intervention in both countries was the provision of piped water. This intervention was instituted early in the projects' life, and many water committees had been trained by prior projects. All of the water committees in both countries had been operating independently for some time before the end of the projects and had had the opportunity to work out problems in their systems with the awardees providing "arm's-length" troubleshooting. They remained robust and active long after the projects ended. Despite these successes, water quality testing did not follow the principle of gradual exit. Although the awardees communicated the importance of water quality testing, the awardees themselves provided such testing directly or took responsibility for making arrangements for it up to the time of exit, then recommended that the water committees contract with an external group or that the municipality purchase the testing equipment (and charge for its use). These systems were not in place and had not been tested before exit, and water quality testing did not continue to be implemented after exit.

CARE's community savings and loan intervention in Kenya offered a model example of the sustainability benefits of a gradual, systematic approach to graduation (from the activity) and exit (of the project). CARE incrementally built the capacity of its community savings mobilization (COSAMO) groups and made clear from the outset its plans for groups eventually (after achieving key milestones) to operate with only minor support from CARE. COSAMO participants were trained in self-management through an intensive, year-long graduated activity, and were "graduated" to independent operation after completing their initial mobilization and training. Groups were operating independently in 1 year, well before CARE's exit. CARE deliberately withdrew gradually, serving as a technical resource after the first savings cycle before leaving the fully capacitated groups to operate on their own. This phased approach enabled COSAMO participants to take ownership of their groups while still being able to access CARE technical assistance to work through constraints and obstacles during the early stages of operation. The model required no outside capital from the outset and generated its own resources, as it was designed to do. Figure 15 illustrates the success in sustaining participation among COSAMO beneficiaries post-project.

Figure 15. Use of Financial Services by COSAMO Beneficiaries in Kenya (CARE)



Notes: Participation refers to respondent or anyone in the respondent's household; sustained participation refers to the percent of households participating during the project that reported also participating post-project (n = 585).
Significance from participated during to post: NS = not significant, ** significant at $p < 0.01$, *** significant at $p < 0.001$

The principle of gradual exit should also be considered when deciding whether to work with existing organizations or start new ones. In some cases, awardees had the opportunity either to create new community-based organizations or build on and strengthen (through training, capacity strengthening, and provision of initial inputs) existing community organizations, such as water committees, rural savings groups, and PAs. Building on existing organizations has the advantage of giving the organization more time to develop independent operating capacity, and the study results supported the advantages of working with existing community groups. In Kenya, CARE's work to create market-oriented value chains was more successful when working with basmati rice farmers, who were already in preformed rice cooperatives, than when working to first build new PAs and then orient them toward production and sale of horticultural crops (recognizing that the marketing challenges may also be different for these different

types of product). Arguably, working with newly formed community-based organizations could achieve the same results but would require a longer investment horizon to achieve sustainability objectives.

The process of gradual exit and independent operation offers the opportunity to test and consolidate the robustness of the sustainability plan and to build additional contingencies into the plan where possible. In Honduras, both WV and SC had operational linkages in place with the public health system prior to awardee exit, but the lack of government resources in the second year after exit to continue paying for CHW travel to health centers for training and information sharing eventually undermined those linkages, despite their gradual exit. In this case, the sustainability plan depended on those linkages to provide needed resources; the awardees did not build in a contingency plan to compensate for the loss of government resources because the expectation was that the public health system would continue to support these activities.

Provision of Resources

Providing free resources often threatened sustainability. In many cases, providing free resources, such as supplementary food as an incentive for growth monitoring participation or free agricultural marketing services to promote sales, created expectations that could not be sustained once the free resources were no longer offered. Study findings indicated that beneficiaries' cost-benefit calculus shifted once external support was withdrawn, if the project initially provided such support. This issue is particularly relevant to FFP projects, where food is a major provided resource. Whether used as an incentive or as a direct input,[28] food resources have traditionally been central to FFP-supported projects, and planning for their withdrawal is a particular challenge to sustainability. For example, in Kenya and Honduras the withdrawal of supplementary food in growth monitoring sessions was associated with a dramatic decline in beneficiary demand for this monitoring. Beneficiaries who continued to participate in growth monitoring did so in locations where incentives continued to be offered. After exit in Kenya, survey data showed that growth monitoring participation dropped from 91 percent at endline to 64 percent at follow-up in ADRA areas, where food supplements were no longer available. In FH areas, food supplements were initially withdrawn at the time of exit, and participation dropped off dramatically the year after the project ended. When FFP again provided food supplements during the emergency response to severe drought a year after that, participation increased once again. As a result, quantitative results suggest that levels were largely maintained (96 percent at endline to 91 percent at follow-up), which disguises the large decline in participation that occurred in the interim when food supplements were not available at growth monitoring sites.

In Honduras, growth monitoring participation fell significantly in all project areas, as there were no substitute incentives. In qualitative interviews, mothers in Honduras commonly mentioned the loss of rations as the reason for not continuing to participate in growth monitoring. As mentioned previously, in Bolivia, just as FFP project rations were withdrawn, the government instituted a conditional cash transfer as an incentive for mothers to participate in growth monitoring and other well-baby care at public health clinics. As a result, participation in growth monitoring was better maintained in Bolivia (although typically not with CHWs within the community—thus reducing CHW motivation) and remained above baseline levels (see Figure 9 previously).

A similar trajectory was seen with model farmers in the countries where this approach was implemented. In exchange for providing extension, education, and demonstrations to other farmers in their communities, model farmers received incentives in the form of inputs and farm improvements during the

[28] During the life of these projects, food resources were sometimes also converted to cash through the process of monetization, though this was not the only source of cash resources for the projects.

project. When the free incentives were no longer forthcoming, these farmers lost motivation to continue in their modeling role. For example, the provision of free marketing and transportation services to ADRA participant farmers in Honduras until the time of exit meant these farmers did not internalize that they would need to pay for these services once ADRA left. Similarly, the provision of the free or low-priced agricultural inputs needed to implement some improved farming practices encouraged in ADRA areas of Honduras and Kenya meant that the model farmers did not develop an expectation of paying full price for the inputs once the project left. With relatively low profits from sales, the model farmers did not always pay to replace the inputs formerly given to them free of charge.

In the NRM sector in Bolivia and Honduras, food-for-work and free inputs (such as seedlings) were provided to community members participating in NRM activities. The indirect or long-term benefit of some activities, such as improvements in air quality due to reforestation in Bolivia, was not sufficient to motivate community members to maintain these resources once the food wage was withdrawn, though sustainability of NRM practices was better when the activities resulted in an improvement on the farmers' own fields (e.g., soil modifications to preserve moisture or protect against flooding).

There were three different types of circumstances in which the provision and then withdrawal of free inputs resulted in lasting success. First, when resources were offered as part of a one-time activity, they were more likely to leave sustained results behind. For example, in Bolivia and Honduras, the projects provided free resources (inputs such as pipes and connections for water systems). These were used to create lasting infrastructure as a one-time activity; after construction, the fee for (water) service model supported the recurring maintenance costs. Another example of this was reforestation, implemented under the NRM sector component in Bolivia: the activity did not continue and expand coverage, but the improvements created using the free inputs were lasting: the forests, once planted, remained, contributing to the project goals of reduced erosion and improved air quality.

Second, when inputs were initially provided free of charge to incentivize and reduce the risks of adopting a new practice, this sometimes created a sufficiently positive demonstration effect so that practices continued once the resources were withdrawn. For example, in CARE areas of Kenya, the project initially provided input support to encourage the adoption of new agricultural activities but then eventually withdrew the support once farmers had bridged the riskiest aspects of the transition process. Farmers who witnessed improved productivity and income from these new technologies continued to purchase the inputs previously provided free of charge.

Third, when free resources were withdrawn gradually and (more importantly) substitute resources were identified in advance, the effects of their withdrawal were less harmful to sustainability than when they were withdrawn abruptly with no provision for replacement resources to provide continued motivation and resource access. For example, growth monitoring participation dropped off in Kenya and Honduras following the abrupt removal of food rations. The plan in Kenya had been to help mothers identify substitute wild foods, but women reported that such foods were not available in their drought-prone areas. In Bolivia, the alternative incentive structure (the conditional cash transfer) introduced by the government at the end of the projects averted a steep participation decline for this activity. Also in Bolivia, mothers were taught to prepare nutritious meals for their children using locally available food from the market or from their own production; at follow-up, many mothers reported that they were using the recipe books they had received and were preparing the recommended dishes. This strategy allowed for replacing the nutrient-rich food supplements provided during the project, but did not serve as an incentive for attendance at growth monitoring sessions in the community.

6 Conclusions

This study identified a crosscutting set of factors that are necessary for sustainability and contextual factors that can facilitate or threaten the success of sustainable benefits after a project ends. Thoughtful project design and implementation of carefully considered sustainability and exit strategies improve the likelihood that FFP development food assistance projects (and possibly other types of development investments) will be protected and expanded and continue to yield returns after project completion. Table 8 summarizes some of the key sustainability and exit strategies used in this study and the contexts in which they did or did not work.

Findings across all four countries in this study demonstrate the importance of identifying sustained sources of resources, capacity (both technical and managerial), motivation, and (sometimes) linkages to ensure sustainable benefits. A reliable source of resources—financial, material, and human capital—needs to be incorporated into plans for exit in order to ensure sustainability. Projects need to ensure that beneficiaries and service providers are well-trained, practice the skills they have learned, and can access a reliable source of continued capacity building for refresher training and to train individuals new to a particular activity. Beneficiaries must be motivated to use the services started under the project and apply the practices learned. This means they must recognize a tangible and relatively immediate benefit. Most of the projects studied emphasized the supply-side of sustainability programming: building the capacity of key resource persons and service providers, infrastructure, and institutions to assume responsibility for service delivery once the projects ended. The projects did not appear to pay equivalent attention to ensuring that conditions were right for continued beneficiary demand, access, and use of provided services. There were examples of this across all sectors; for instance, in Kenya, demand for CHWs and model farmers declined, as did participation in growth monitoring and PAs.

Individuals trained to provide services must be motivated to continue doing so once the incentives provided by the project are no longer available. Many activities implemented under FFP projects depend on functioning linkages between project beneficiaries and service providers, and among beneficiaries, service providers, and institutions (government, private sector) capable of providing continued capacity building and resources. However, not all linkages are effective at sustaining project impacts, outcomes, and activities: the linkage partners themselves must have reliable resources, capacity, and motivation to serve that purpose.

The experiences described in this report demonstrate the importance of implementing a carefully conceived exit strategy that allows individuals and/or associations/organizations to operate independently prior to project exit in order to gain the experience and confidence to continue activities without external support and to work out sustainability issues before the project completely withdraws. Furthermore, the study found that awardees that built ownership among key stakeholders and communicated plans for sustainability and exit from a very early stage enabled expectations and preparedness to be calibrated accordingly. Different awardees had varying institutional philosophies related to whether, when, and how their agency should withdraw support from a community. Those that "entered each community already exiting" tended to achieve more sustainable results.

Ensuring that benefits continue to reach an expanding number of individuals after the project ends requires putting mechanisms in place before exit for sustained service delivery afterwards. This can be more time consuming and less easily quantifiable than directly delivering benefits that yield individual-level, shorter-term impacts. Currently, awardees tend to be rewarded for the latter, since they are judged based on their endline evaluations, which document achievements with respect to impact indicators. As demonstrated in examples throughout this report, this may jeopardize sustainability among direct

beneficiaries of a project and—to a greater degree—expansion of benefits to new individuals after the project ends.

Sustainability plans and their related exit strategies need to be based on clearly articulated theories of change, with underlying assumptions elucidated, assessed, and tested. A key finding of this study is that "hope is not a strategy." Sustainability plans that depend on the expectation, or hope, that individuals and organizations will continue to function without the key factors previously identified are not likely to achieve this goal. Such plans should take account of what is feasible within the economic, political, and social/cultural context of the areas in which they work. An intervention that is acceptable in one setting may be rejected in another if it does not conform to local norms of behavior, and a project whose sustainability depends on handover to the local or national government must assess realistically the potential for the government to provide the necessary support.

Different strategies for sustainability may be feasible in different technical sectors. A continued flow of resources to sustain project activities may be provided through fee-for-service in some sectors (such as the provision of water paid for by user fees, or veterinary services paid for by those who use them), but user fees may not be culturally acceptable for services in other sectors, such as MCHN. The evidence shows that where user fees are appropriate, they are more acceptable if they are introduced from the beginning; once services or goods have been provided free, it is difficult to change expectations so that users later pay for them (though there are exceptions to this for visibly beneficial inputs or services). Similarly, when material incentives have been provided for project activities, these activities are more difficult to sustain once these incentives are withdrawn. Resources may also come from the establishment of profitable businesses or activities, as was the case with some agricultural development and microfinance activities, but the success of this business model depends on having all of the elements of any successful business in place: sufficient quality and quantity of product, stable effective demand, adequate information about market conditions and prices, and compliance with local norms and regulations. No single strategy for sustainability is applicable in all settings and sectors.

Achieving sustainable change requires attention to both impact indicators and indicators of longer-term benefit. Indicators of sustainability are distinct from impact and outcome targets, and both should be evaluated to judge project success. A project's monitoring and evaluation system should track sustainability indicators throughout the project cycle, and consideration should be given to extending the period in which projects are evaluated so that sustainability after exit can be assessed. (This is not the same as extending the project period itself.)

Effective project implementation is critical to achieving both short-term (life of the project) success and longer-term sustainability. When logical frameworks are developed, it is important to consider how different project components relate to each other, and whether success in one technical sector depends on other implemented components, for example, by ensuring that home gardens have been adopted by beneficiaries so that they can follow nutritional advice to diversify their children's food consumption using home-produced foods, or by ensuring farmers are producing sufficient high-quality produce before promoting long-term contracts with buyers. Sustainability may also be promoted by working to establish links among development initiatives in a country or region, for example, by coordinating with other USAID interventions. Such coordination was not commonly seen among the projects studied here, but synergies achieved by integrating FFP with other development programs could strengthen the factors that make sustainability of activities, outcomes, and impacts more likely.

This study assessed the sustainability of project activities, outcomes, and impacts 2–3 years after exit across a range of technical sectors in four countries. Three of the four countries had projects that had explicitly incorporated sustainability plans and exit strategies into their development projects prior to exit.

The varying degrees of sustainability in these projects' outcomes and impacts demonstrate that having a plan in itself does not assure sustainability; the plan must take account of the forces driving sustainable change. As more projects incorporate sustainability plans and exit strategies into their projects and carefully document their results, the evidence base on which to build sustainable projects will grow. This study represents one contribution to that evidence base.

Table 8. Summary of Sustainability Plan/Exit Strategy Conclusions by Technical Sector

Sustainability Factor	Sustainability Plan/Exit Strategy	Conclusion
MCHN		
Resources	Fee for service	Not tried; not deemed culturally or socially acceptable in any study country.
Motivation	Motivate service providers with appreciation of past benefits, current prestige, and community recognition	This implicit strategy was generally ineffective in sustaining CHW services over time in Bolivia, Honduras, and Kenya. Not relevant in India where CHWs were paid.
	Replace material incentives with appreciation of tangible benefits of practices	Beneficiary participation in growth monitoring was not maintained in the absence of food supplements or other material incentives in Honduras and Kenya.
	Motivate beneficiaries with tangible benefits of learned practices	Some practices were well-maintained; others declined without continued promotion by CHWs. Beneficiaries did not perceive the benefits of some practices. Additional factors may have been ease and cost of compliance.
Capacity	Train CHWs to provide growth monitoring and health education	In all countries studied, CHWs generally maintained their knowledge.
	Continued supervision and refresher training of CHWs	In Bolivia, Honduras, and Kenya, lack of effective linkage to public health systems reduced CHW access to refresher training and new information. In India, CHWs received regular supervision and training through the public health systems.
	Educate mothers to implement improved child care practices	Lack of motivation, not lack of capacity, appeared to prevent mothers from applying improved practices in Bolivia, Honduras, and Kenya.
Linkages	Establish vertical and horizontal linkages	Vertical linkages of CHWs to government health systems were effective in some, but not all, communities in Bolivia and were occasionally effective in Honduras. Horizontal linkages among CHWs were not implemented due to a lack of motivation and resources. In India, health workers belonged to a government-provided chain of supervision.

Sustainability Factor	Sustainability Plan/Exit Strategy	Conclusion
Exit Process	Phase-over to government	This was effective in India where government programs supported CHWs and the provision of food supplements. Government programs providing growth monitoring along with supplementary food and cash transfers were also effective in Bolivia, making phase-over to government more successful than it otherwise might have been, although these programs were implemented independent of the FFP projects. Government health systems lacked resources for full coverage in Kenya and Honduras, and lacked capacity in Kenya to sustain health services.
	Phase-over to another donor[29]	In several instances, new donors implemented health projects in former FFP communities in Bolivia and employed FFP-trained CHWs, although this was not consistent.
W&S		
Resources	Fee for service	This was effective for piped water interventions in Bolivia and Honduras, where beneficiaries were motivated to pay. This was less effective in Kenya, where quality of service and motivation to pay were lower. Projects provided resources but not motivation to maintain water quality testing in Bolivia and Honduras.
Motivation	Provide high-quality water service	Receipt of piped water into households in Bolivia and Honduras motivated beneficiaries to pay fees; improved boreholes with erratic supply were not sufficient motivation to maintain payment in Kenya.
Capacity	Train water committees in both maintenance and management of funds	This was effective in Bolivia and Honduras; financial planning and management in addition to technical capacity were critical to sustained service delivery.
Linkages	Establish vertical and horizontal linkages	Linkages of water committees to municipal government were damaging to sustainability, and linkages among water committees were therefore not sought or implemented in Bolivia and Honduras.
Exit Process	Gradual exit and independent operation	This was effective in sustaining water committees in Honduras and Bolivia. The lack of gradual exit with independent operation undermined the sustainability of water quality testing.

[29] While continued dependence on outside donor support is not a characteristic of sustainability, phase-over to a new donor was an explicit sustainability strategy of implementing organizations in Bolivia.

Sustainability Factor	Sustainability Plan/Exit Strategy	Conclusion
Agriculture, NRM, Livestock, and Watershed Development		
Resources	Fee for service	This was effective in sustaining the provision of paravet and other agriculture-focused technical services in Kenya, where fees were charged from the beginning. This was not effective for agriculture extension in one of the projects in Kenya, where fees were imposed at exit.
	Business/profit model	Farmers linked to markets individually or through PAs had motivation and resources to apply learned practices and grow new crops that were profitable in Bolivia, Honduras, and Kenya. The model's effectiveness was limited to those farmers able to link to markets.
Motivation	Motivate service providers with appreciation of past benefits, current prestige, and community recognition	This was ineffective in sustaining training by model farmers in Honduras, Bolivia, and Kenya.
	Replace material incentives with appreciation of tangible benefits of practices	Once free inputs and food for work were withdrawn, most NRM practices were not maintained in Bolivia, Honduras, or Kenya.
	Promote practices with immediate tangible benefit	This was effective in Bolivia, Honduras, and Kenya. NRM and agriculture practices directly affecting productivity/resilience were better maintained, even without free inputs.
Capacity	Train farmers in improved techniques and new crop production	Farmers generally maintained their knowledge. Lack of motivation and resources, not lack of knowledge, inhibited farmers from applying practices.
Linkages	Establish vertical linkages to other institutions	In Bolivia, Honduras, and Kenya, there were examples of PAs and farmers engaged in marketing and contract farming accessing credit, inputs, and/or training through buyers—both private sector and parastatal. Linkages to government extension for farmer training were not effectively implemented. In Bolivia, some municipal governments assisted successful PAs with marketing.
Exit Process	Phase-over to government	Indian government programs to pay for labor for watershed maintenance were sustained at a high level because the government invested significant resources in the program. Phase-over of NRM activities to environmental units in the municipal governments of Bolivia was not sustained because these units lacked both staff and resources.
	Gradual exit with independent operation	Where exit was gradual and farmers had opportunities to negotiate contracts/sales independently, farmer participation in markets was better sustained.

Sustainability Factor	Sustainability Plan/Exit Strategy	Conclusion
Education/School Feeding (India only)		
Exit Process	Phase-over to government	The Indian government declined to extend midday meals program to implementing organization's schools.
Microfinance (Kenya only)		
Resources	Fee for service	This was effective as profits from lending groups paid community-based trainers a fee to provide technical assistance to new mutual lending groups.
Motivation	Business/profit model	Mutual lending groups were motivated by profits derived from membership.
Capacity	Technical and managerial training	Group members were trained and continued to apply lessons learned; they remained motivated by profits.
Exit Process	Work with existing community-based organizations to allow longer period of independent operation	The experience of independent operation contributed to sustainability and expansion of lending groups.

7 Recommendations

The results of this study suggest a number of steps that can be taken to improve the likelihood that FFP and other development projects will achieve sustainable impacts in the future, and to institutionalize sustainable approaches to project design and evaluation.

1. FFP should adjust the solicitation and application review processes to account for sustainability.

Applications for new FFP development food assistance projects should incorporate the lessons learned from this and related studies. While applications already include sustainability plans, these plans should include sufficient detail to permit an adequate judgment of their potential for successful sustainability. In addition, the ability of awardees to achieve sustainability in their previous projects should be part of any assessment of their capacity to undertake new projects.

Sustainability plans should clearly articulate the sustainability theory of change as part of project design. A sustainability plan and exit strategy should be more than a vague description in the project application, such as "CHWs will be phased over to the government." Instead, sustainability plans should be part of a detailed theory of change that links a project's inputs with its long-term (sustainability) objectives. In fiscal year 2014, FFP started requiring prospective development project awardees to include a theory of change as part of the project application, which is a useful step in this direction. These theories of change should be extended beyond impact (typically associated with results achieved by the completion of a project cycle) to include the detailed articulation of the pathways through which the project will effect long-term change. Project designers should work backward from the objectives of this long-term change to answer questions, such as, "Does the project expect to see sustained benefits among direct beneficiaries only?" and "Will the project institute mechanisms that expand benefits to new individuals who were not involved in the original interventions?" Using a detailed theory of change as a starting point, potential weak links in the sustainability chain can be vetted at the design stage or during early stages of implementation and managed while the project is ongoing, when there is still opportunity to alter course.

The critical factors for sustainability should be incorporated into all project sustainability plans and exit strategies. In articulating the theory of sustainable change, project sustainability plans should include explicit means to ensure that the critical factors of motivation, capacity, resources, and (often) linkages continue to be available post project. The plans should include a realistic assessment of the probability of sustaining successful outcomes and impacts, taking into account the time required for phase-over to independent operation. Plans for accommodating the withdrawal of free resources must also be realistic, based on the likelihood that capacity has been built, that tangible benefits will provide motivation to continue work without free resources, and resources will be reliably generated within the project design to allow for continued access (as needed) to inputs similar to those previously provided for free by the project.

Linkages need to be carefully assessed. Plans for linking project activities to external entities should consider carefully whether the institutions involved in the planned linkages have the resources, capacity, and motivation to sustain these activities over time. Experience has demonstrated the risks of relying on government or donor support over the long run and the desirability of creating self-sustaining, self-reinforcing systems to provide continued (and expanded) benefits.

Short-term impact and long-term sustainability may be trade-offs. The route to achieving maximum short-term impact and strategies for sustainability can be very different and are sometimes at odds. Donor funding should support and reward projects that strive for sustainability over shorter-term impacts, and awardees should be incentivized to seek innovative and successful sustainability models for challenging sectors and contexts. Detailed exit strategies and evidence of a realistic model for sustainability should be evaluated by funders and supported financially to ensure that sustained impact is considered from the beginning of a project's development.

2. Project assessment should include indicators to measure not only impact but sustainability of change.

Sustainability plans and exit strategies should contain clear timelines and benchmarks of progress toward sustainability, separate from indicators of impact. Criteria used in evaluating project success should include evidence of the potential for sustainability, not only impact indicators. In addition, donors should consider the potential to achieve sustainability when reviewing applications for new projects.

A project's theory of sustainable change should be used as the basis for developing a logical framework that includes key monitoring and evaluation indicators to track progress toward benchmarks that signal the ability to phase out a project activity and/or to "graduate" groups of beneficiaries after a period of successful independent operation. These indicators should assess ensured resources, capacity, motivation, and linkages, along with conventional measures of impact. For example, at an FFP-supported exit strategies workshop in Honduras, the awardees together established suggested benchmarks for their agriculture/NRM activities that included such indicators as "the percentage of PAs that have independently negotiated at least one contract for the purchase of inputs" and "the percentage of PAs that have achieved legal recognition."

Exit strategies should incorporate details including timelines, allocation of post-project responsibilities, and benchmarks for achieving milestones on the way to independent, non-awardee-supported activity implementation. Implementing organizations should also make use of data from prior project evaluations in developing their sustainability plans and exit strategies for future projects, to promote evidence-based project design and learning from past project experience.

3. FFP should consider adjusting its evaluative processes and extending projects beyond the 5-year cycle when there is evidence of progress toward sustainable impacts.

FFP should consider longer project cycles to accommodate sustainability considerations. Multisectoral development projects, such as those that FFP implements, may require more than the typical 5-year cycle to achieve benchmarks of sustainability, and the length of a project period might optimally be adjusted to the specific goals of a particular activity. For example, it may be possible to achieve the conditions for sustainable impact for some activities in less than 5 years; however, many projects, including those with significant capacity building or systems strengthening components, as well as projects focusing on fundamental changes in governance structures, such as those recently proposed within USAID,[30] may realistically require a time horizon longer than 5 years. Decisions about continued funding after 5 years should be based on evidence of progress toward sustainable impact. Whatever a project's timeline, it should include an assessment of sustainability potential during the life of the project.

One way to accomplish this is by conducting evaluations at different stages of a project, with indicators adjusted appropriately. For example, at the 3-year mark, the evaluation might assess the degree to which

[30] USAID. 2014. *Local Systems: A Framework for Supporting Sustained Development*. Washington, DC: USAID.

planned activities had been implemented, and at the 5-year mark, what impacts had been achieved and whether project activities were being conducted independently by community organizations or individuals. Activities would be reviewed with the perspective of ensuring that, for key behaviors, the essential factors of resources, capacity, and motivation had been adequately addressed. At the 7-year mark (2 years after the end of the typical FFP development project cycle, and *after* project exit and withdrawal of resources from target communities), the continuation of activities and the effectiveness of linkages established during the project would be assessed, in addition to evidence of sustained impact.

4. FFP and its partners should strengthen their capacities, as necessary, to institutionalize sustainability in programming through training and improved knowledge management, as well as strengthened organizational commitment to look beyond immediate impact to sustainability.

Institutionalizing sustainability programming within donor and implementing organizations will require a careful blend of resources and capacity. A shift toward a sustainability focus requires changes on the part of both the awardees and the donor. In the case of FFP, any adjustments to requests for applications, indicator requirements, and evaluation processes to take into account sustainability will have implications for associated training of staff. In the case of awardees, they will need to build and internalize the capacity to design projects incorporating these elements. Awardees, however, vary in their levels of experience, areas of strength, and technical capacities, as well as the degree to which their organizational philosophies are already committed to sustainability and eventual exit. If the recommendations in this report (and in others that have emphasized the importance of sustainability) are to be institutionalized, the training and associated resources required to adopt them (in the planning, implementation, and evaluation phases) must be acknowledged and planned for.

5. Projects should be designed with local context (economic, political, and social/cultural systems) in mind and should take account of the need for resilience in the face of climate or other shocks.

Projects do not work the same way in every setting; they should be designed to capitalize on positive characteristics of the local context and to accommodate challenges (including "known" recurring shocks) or points of resistance that are endemic to the implementing environment. Development projects must consider the potential for events external to the project to derail sustainability plans, and should incorporate contingencies into sustainability planning up front. Disaster risk reduction and resilience-building strategies are designed to prevent, mitigate, and protect against shocks. Yet almost any broken link in the sustainability implementation pathway will jeopardize sustained benefit, even when shocks are not a threat. For instance, neglecting to arrange for CHWs to continue to have access to working scales after exit was one factor that jeopardized the continuation of CHW services in Kenya. Planning for exit requires ensuring that the sustainability pathway is working at exit and resources and alternative plans are in place in case a particular element on the pathway breaks down. Every project should engage in a risk assessment that considers threats to the smooth execution of its sustainability plans and identifies, tests, and communicates contingency options to all stakeholders.

6. Project design should incorporate strategies for sustaining beneficiary demand as well as supply of services.

Most projects included in this study had a primary focus on sustaining service delivery. However, sustainability also requires that beneficiaries have the resources, capacity, and motivation to take advantage of the services offered. It is critical in designing sustainability plans to give equal consideration

to both sides of the sustainability equation: supply and demand. To sustain demand, beneficiaries must perceive that the services meet a felt need. They should be able to see notable improvements in their well-being as a result of the services provided during the project, and should understand what is required to maintain and/or see further improvements. For beneficiaries to maintain "improved" behaviors promoted during a project or to continue using project-initiated services, the perceived benefits must outweigh the perceived costs (such as time and money).

7. Project exit should be gradual, with a phased transfer of responsibility to the appropriate stakeholders; exit should follow a phase of incrementally independent operation; and project beneficiaries and beneficiary communities should be engaged in plans for sustainability and exit from the beginning of the project cycle.

The results of this study demonstrate the importance of ensuring that activities initiated or promoted by a project transition to independent operation with adequate time to function independently while the implementing organization is still available to provide support. Entities supported by the projects (e.g., water committees, PAs, and savings groups) should have an opportunity to plan and implement activities, solve problems, manage resources, and adapt to turnover of personnel before the implementing organization has exited. If the sustainability plan involves phase-over to another institution—government, NGO, or private sector—the phase-over should be completed, with the linkages tested and adjusted as necessary, while the awardee is still able to facilitate and troubleshoot relationships. If free resources are being withdrawn, this should also be done gradually, so that beneficiaries and service providers can establish and test mechanisms for replacing these resources, when necessary, with alternative incentives or inputs; replacement systems should be operational before exit.

From the beginning, beneficiaries need to recognize that projects will not be permanent. This recommendation is relevant not only to the plans for withdrawing from an entire project, but also to the process of graduating individuals from specific activities. The phase-over of responsibility to the entities charged with sustaining each element should be participatory. CARE/Kenya described its approach as "entering each community already exiting." All beneficiaries of this implementing organization's project were aware from the project's outset that the awardee would leave, and the project worked to ensure that beneficiaries were prepared for this exit. This philosophy of exit should be institutionalized from the start, not just as part of specific projects but within implementing organizations and donor agencies alike.

8. FFP should consider selecting a subset of projects for periodic assessment over a period of as long as 5 or 10 years after exit, to track the evolution of activities and benefits and their persistence over time.

In line with these important shifts toward a more sustainability-focused project approach, dynamic and flexible mechanisms to evaluate projects and impacts should extend beyond the typical 5-year project cycle in order to capitalize on the great potential for continued learning about effective, longer-term development dynamics. The present study assessed sustainability of outcomes and impacts over a 2- to 3-year period after project exit. However, it is the goal of development projects to create changes that last beyond such a relatively short time horizon. Even if specific activities are not always meant to continue, the benefits of these projects (such as improved nutrition and increased food security) are meant to be sustained indefinitely and expanded more broadly. Ideally, longer-range studies would assess the persistence and expansion of project impacts in the communities originally targeted and more broadly in the projects' areas of potential influence. While such studies are unlikely to be feasible for every project, implementing them in selected cases would further build the evidence base for the processes needed to create lasting change.

9. FFP should ensure continued and consistent use of a system whereby awardees archive all baseline and evaluation reports including accessible and documented original data.

Preserving accessible original data and evaluation reports with clearly documented indicator definitions and sampling methods is critical for any institution's long-term learning agenda. It is also important for future research on post-project sustainability.[31] Such an archive would be more useful still if data collection methods and at least a subset of key indicators were defined and collected consistently over the life of every project.

[31] As previously mentioned, data submission requirements have been instituted since the completion of the present study.

Appendix 1. Sustainability of Select Impact Indicators from Project Endline to Follow-up

Table A1 summarizes some of the impacts and outcomes that were generally sustained (maintained with no significant change or improved from endline to follow-up) and some that were not sustained (deteriorated over the same period). Indicators that were sustained were those showing no significant change from endline to follow-up; indicators that were improved were those with a significant change in the indicator ($p < .05$) in the desired direction; and indicators that deteriorated were those with a significant change in the indicator ($p < .05$) in the undesired direction. Follow-up surveys were implemented 2 years after project exit in Honduras, Bolivia, and India, and 3 years after exit in Kenya.

Table A1. Change in Indicator Between Project Endline and Follow–up Surveys (Indicating Sustained, Improved, or Deteriorated)[1, 2]

Maternal and Child Health and Nutrition: Impacts and Behavior Changes

	Honduras			Bolivia				Kenya			India	
	ADRA	SC	WV	ADRA	CARE	FH	SC	ADRA	CARE	FH	CARE	CRS
% of children stunted	25.9–24.6 *sustained*	15.6–15.0 *sustained*	42.0–35.8 *sustained*	30.9–31.5 *sustained*	30.2–28.3 *sustained*	45.1–39.3 *sustained*	33.1–38.1 *sustained*	N/A	24.5–28.8 *sustained*	29.0–39.6 *deteriorated*	39.9–40.0 *sustained*	38.4–35.3 *improved*
% children underweight	N/A	N/A	N/A	7.7–6.6 *sustained*	8.3–5.7 *sustained*	10.1–9.2 *sustained*	7.3–6.9 *sustained*	N/A	15.0–10.4 *improved*	24.1–41.5 *deteriorated*	43.5–40.8 *improved*	34.2–37.5 *deteriorated*
% children with diarrheal episode	N/A	23.1–24.0 *sustained*	N/A	23.3–27.1 *deteriorated*	29.0–24.8 *improved*	N/A–28.4	20.5–18.8 *sustained*	N/A	21.3–14.5 *improved*	35.0–39.6 *sustained*	18.8–13.2 *improved*	12.4–16.7 *deteriorated*
% mothers who continue to feed children food during illness	43.5–21.5 *deteriorated*	53.5–19.7 *deteriorated*	33.5–21.2 *deteriorated*	58.0–30.7 *deteriorated*	68.2–44.2 *deteriorated*	N/A–42.4	84.0–70.1 *deteriorated*	N/A	24.1–13.0 *deteriorated*	87.0–53.0 *deteriorated*	4.1–6.5 *improved*	42.3–28.7 *deteriorated*
% mothers who continue to feed children liquid during illness	93.7–83.2 *deteriorated*	80.8–35.6 *deteriorated*	N/A–84.0	89.7–77.7 *deteriorated*	94.2–88.8 *deteriorated*	N/A–70.2	84.0–70.1 *deteriorated*	N/A	N/A	97.3–80.0 *deteriorated*	N/A	60.5–48.1 *deteriorated*
% mothers exclusively breastfeeding	59.2–70.5 *sustained*	52.0–47.5 *sustained*	51.1–68.2 *improved*	89.9–85.8 *sustained*	75.8–75.5 *sustained*	92.9–100 *improved*	85.1–89.7 *sustained*	N/A	37.1–60.7 *improved*	80.5–68.0 *sustained*	30.1–47.4 *improved*	65.4–75.0 *improved*
% mothers took children to growth monitoring	92.5–81.2 *deteriorated*	93.2–72.4 *deteriorated*	85.2–64.2 *deteriorated*	89.9–85.8 *deteriorated*	89.0–92.2 *improved*	93.1–85.8 *deteriorated*	93.2–76.5 *deteriorated*	90.5–63.5 *deteriorated*	N/A	95.8–91.3 *deteriorated*	48.1–47.5 *sustained*	83.2–90.2 *improved*

Water and Sanitation: Impacts and Behavior Changes

	Honduras			Bolivia				Kenya			India	
	ADRA	**SC**	**WV**	**ADRA**	**CARE**	**FH**	**SC**	**ADRA**	**CARE**	**FH**	**CARE**	**CRS**
% households with access to improved water source	90.5–89.7 *sustained*	61.1–76.0 *improved*	88.9–92.2 *improved*	99.3–92.3 *deteriorated*	65.4–72.2 *improved*	69.3–84.1 *improved*	N/A–86.0	N/A	77.2–54.0 *deteriorated*	95.9–92.9 *sustained*	N/A	N/A
% households with access to improved latrine	80.3–83.8 *sustained*	70.5–79.0 *improved*	69.2–67.2 *sustained*	95.5–89.1 *deteriorated*	33.7–35.4 *sustained*	38.2–72.0 *improved*	31.6–38.3 *improved*	N/A–75.4	75.6–68.5 *sustained*	66.3–44.9 *deteriorated*	N/A	N/A
% households observing handwashing	89.9–17.1 *deteriorated*	86.5–78.6 *deteriorated*	N/A	72.3–20.9 *deteriorated*	63.4–45.7 *deteriorated*	78.0–12.6 *deteriorated*	43.8–6.3 *deteriorated*	N/A	N/A	N/A	45–56.1 *improved*	26.1–28.1 *improved*
% households that purify water	N/A–65.0	58.4–82.2 *improved*	50.4–64.0 *improved*	87.6–50.0 *deteriorated*	70.9–42.0 *deteriorated*	N/A	83.6–50.6 *deteriorated*	N/A	68.7–69.8 *sustained*	82.6–74.4 *deteriorated*	N/A	N/A

Agriculture and Natural Resource Management: Impacts and Behavior Changes

	Honduras			Bolivia				Kenya			India	
	ADRA	**SC**	**WV**	**ADRA**	**CARE**	**FH**	**SC**	**ADRA**	**CARE**	**FH**	**CARE**	**CRS**
Household dietary diversity (mean)	8.8–6.8 *deteriorated*	8.1–9.9 *improved*	8.2–8.3 *sustained*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.47–3.87 *improved*	N/A
Months of household food provisioning (mean)	10.5–11.1 *improved*	8.3–11.0 *improved*	11.9–N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.3–6.5 *sustained*
% households with agricultural sales	87.1–49.4 *deteriorated*	N/A–20	53.7–54.6 *sustained*	82.4–64.3 *deteriorated*	66.2–77.8 *sustained*	74.3–90.2 *improved*	100–100 *sustained*	N/A	88.0–58.6 *deteriorated*	N/A	N/A	31.8–95.8 *improved*
Income from agricultural activities: median	519–0 *deteriorated*	N/A–0	528.0–437.0 *sustained*	N/A	N/A	N/A	N/A	N/A	226.0–142.0 *sustained*	N/A	N/A	N/A
Income from agricultural activities: alpha truncated mean	720–358 *deteriorated*	N/A–15.8	521–889 *improved*	2,989–1,729 *deteriorated*	3,871–1,637 *deteriorated*	2,531–1,878 *deteriorated*	2,662–2,153 *sustained*	N/A	N/A	N/A	N/A	809–12,025 *improved*
% farmers growing at least 1 promoted crop	60.7–3.4 *deteriorated*	44.7–38.2 *deteriorated*	7.9–6.7 *sustained*	98.5–96.6 *deteriorated*	86.0–86.6 *sustained*	88.5–94.4 *improved*	99.7–95.6 *deteriorated*	N/A	N/A	N/A	N/A	N/A
% households adopting target agricultural practices	96.1–9.4 *deteriorated*	78.6–57.0 *deteriorated*	82.5–47.2 *deteriorated*	97.9–88.9 *deteriorated*	N/A	99.8–95.8 *deteriorated*	N/A	N/A	N/A	N/A	N/A	14.3–35.9 *improved*
% farm households who are members of a farmer association	N/A–5.8	N/A–4.7	5.3–8.6 *improved*	N/A–24.2	78.2–52.9 *deteriorated*	N/A–14.7	23.2–20.1 *sustained*	33.8–24.0 *deteriorated*	69.0–66.3 *deteriorated*	N/A	N/A	N/A

Agricultural Yields (mean kg/ha, by crop)[3]

	Honduras			Bolivia				Kenya			India	
	ADRA	**SC**	**WV**	**ADRA**	**CARE**	**FH**	**SC**	**ADRA**	**CARE**	**FH**	**CARE**	**CRS**
Maize	3,581–2,908 *deteriorated*	1,517–1,361 *sustained*	2,951–3,324 *improved*	1,814–1,021 *sustained*	1,429–1,330 *sustained*	913–1,003 *sustained*	2,213–467 *deteriorated*	7.3–2.1[4]	874–479 *deteriorated*	84.2–32.4 *deteriorated*	N/A	N/A
Beans	2,579–1,619 *deteriorated*	774–358 *deteriorated*	716–960 *sustained*	N/A	N/A	N/A	N/A	4.3–1.3[4]	766–185 *sustained*	76.6–36.1 *deteriorated*	N/A	N/A
Potatoes	N/A	N/A	N/A	9,088–3,866 *sustained*	5,084–4,000 *sustained*	9,562–5,951 *sustained*	3,849–2,273 *deteriorated*	N/A	N/A	N/A	N/A	N/A
Rice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,193–1,289 *improved*
Wheat	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	815–1,030 *improved*

[1] Sustained = no significant change; improved = significant change in indicator ($p < .05$) in the desired direction; deteriorated = significant change in indicator ($p < .05$) in the undesired direction; N/A = indicator not available

[2] See individual country reports for detailed indicator definitions and additional indicator results.

[3] Mean truncated at the upper end of the third quartile of the interquartile range.

[4] Yields measured in "bags/acre"; significance test was not possible without access to endline data.