

## Sustaining Development: Results from a Study of Sustainability and Exit Strategies among Development Food Assistance Projects—India Country Study

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*This brief summarizes the approach to and findings and recommendations of the sustainability and exit strategies study in India. Additional findings from the India study and other country studies are available at [www.fantaproject.org](http://www.fantaproject.org).*

### Background

From 2009 to 2016, the Tufts University Friedman School of Nutrition Science and Policy, a partner on the U.S. Agency for International Development (USAID)-funded Food and Nutrition Technical Assistance III Project (FANTA), conducted a multi-country study to assess the effectiveness of USAID's Office of Food for Peace (FFP) development food assistance projects' sustainability plans and exit strategies for achieving sustainable impacts after the projects exited their implementation areas.<sup>1</sup> This report describes the results of the study in India, where FFP development projects ended in 2009 and 2010.

Two nongovernmental organizations implemented FFP development projects in India: CARE and Catholic Relief Services (CRS). CARE's FFP development project dealt exclusively with the maternal and child health and nutrition sector in three successive cycles

<sup>1</sup> This study defines *sustainability plan* as a plan describing those elements of a project that incorporate sustainability concerns and increase the likelihood that project activities, outcomes, and impacts will continue after project exit. *Exit strategy* is defined as an operational plan for withdrawing from target communities without jeopardizing progress toward project goals.



A mother and son after receiving medical care and food in Kolkata, India. (Source: Irene Han Li/Photoshare)

(called the Integrated Nutrition and Health Program I, II, and III) from 1997 to 2009. CRS implemented projects from 1997 to 2010 in three sectors: maternal and child health and nutrition, agriculture (watershed development), and education. Both organizations devoted their last project cycle, called the phase-out plan (POP), to transitioning (phasing over) their activities to Government of India programs.

### Objectives

The objectives of the study were to determine the extent to which activities, outcomes, and impacts of the FFP projects were sustained after the withdrawal of these projects' funding, identify project and non-project factors that made it possible to sustain project benefits after the projects ended, assess how the exit process affected sustainability, and provide guidance

to future project implementers and funders regarding how to improve sustainability.

## Methods

Both CARE and CRS implemented baseline studies at the start of their second project cycle (2002), and final evaluations at the end of that project cycle (2007) served as a baseline for the POP. Endline evaluations at the end of the POP were conducted in 2009 for CARE and 2010 for CRS. The study team then replicated the endline evaluations 2 years later (in 2011 for CARE and in 2012 for CRS) in a follow-up quantitative survey implemented in a subset of the states in which the endline evaluations had been conducted. The study team also implemented a qualitative investigation in the same subset of states at the time of the endline evaluations and returned to the same areas 2 years later to repeat the qualitative investigation. The qualitative investigation consisted of key informant interviews and focus group discussions with project beneficiaries, staff, and other stakeholders.

## Results

A striking observation seen across the focus sectors of both FFP development projects in India was the inconsistency of results across states. In each sector, there were examples of indicators that improved significantly from POP endline to follow-up in some states while declining significantly in other states. Consequently, the aggregate results for all states in the study mask substantial state-by-state differences. Further, there appears to be no discernable pattern among results across states: states that improved significantly on one indicator declined in other indicators; no one state saw consistent improvements (or continuation of previous improvements) or consistent declines across the majority of indicators. In addition, differences across states were often larger than any endline-to-follow-up change within a given state. This inconsistency suggests that even with well-designed national government programs as the designated phase-over entity, as was the case

in India, variability in implementation is possible, and effective implementation at the local level is critical to success.

## MATERNAL AND CHILD HEALTH AND NUTRITION: CARE

At follow-up, the POP showed some notable sustainability successes in the maternal and child health and nutrition sector. Administrative components of the project's activities in this sector, such as sector meetings, were adopted by the state and national health systems: more than 95 percent of frontline *anganwadi* workers reported attending monthly sector meetings, and regular sector meetings were associated with improved compliance with several measures of frontline worker performance (e.g., home visits, use of field tools). Nonetheless, *anganwadi* worker attendance at sector meetings varied widely by state, from 9.7 percent in Chhattisgarh to 92.7 percent in Andhra Pradesh. Reported home visits by *anganwadi* workers within the past month were sustained or improved from endline to follow-up, reaching 40 percent of mothers at follow-up—a figure that would likely have been higher if a less stringent time frame for home visits had been applied.

Multivariate regression showed that *anganwadi* worker home visits were consistently associated with growth monitoring participation among mothers, diet diversity, and good handwashing practices in most states. Other positive results include the fact that Nutrition and Health Days<sup>2</sup> continued to be held every month and that the provision of take-home rations at these Nutrition and Health Days was sustained or improved in all states except Orissa. Uninterrupted food supply at *anganwadi* centers was also well maintained in all states. In addition, some maternal caring practices were well maintained: institutional deliveries consistently improved in all states, and

<sup>2</sup> Nutrition and Health Days are organized monthly at the *anganwadi* center serving the communities. At the Nutrition and Health Days, children are weighed, their health cards are checked, appropriate immunizations are given, and take-home rations are provided. Nutrition and Health Days are attended by the *anganwadi* workers and the accredited social health activist, as well as the supervisor.

mothers' reports of not reducing feeding during diarrhea was also maintained or increased in all states (to 71.8 percent overall). In contrast, participation in growth monitoring (in the past month) was less well maintained, with increases in one state, decreases in two other states, and an overall participation rate of 47.4 percent. There was similar inter-state inconsistency in the maintenance of other behaviors (e.g., exclusive breastfeeding to 6 months of age, introduction of complementary food).

The purpose of the present study was to assess the sustainability of activities, outcomes, and impacts achieved by the FFP projects, not to conduct an impact evaluation of the project. Despite many sustainability successes, the project during its life did not achieve a positive impact on malnutrition as measured by weight-for-age z-score: rates rose over the life of the project, and endline rates were unchanged at follow-up in 2011. Therefore, we do not and cannot explicitly assess the sustainability of changes in this measure of malnutrition.<sup>3</sup> Although the core assumption that improvements in service delivery, service use, and care practices would substantially reduce the prevalence of undernutrition was not supported by the evidence, the sustainability of indicators such as access to food, participation in growth monitoring, and institutional deliveries offers some lessons about factors that make sustainability more likely to be achieved.

### **MATERNAL AND CHILD HEALTH AND NUTRITION: CRS**

In the CRS project's maternal and child health and nutrition component, service delivery and service use were largely sustained and, in many cases, expanded as village health workers encouraged women to make use of services offered by the Government of India's Integrated Child Development Service and health system.

<sup>3</sup> No baseline information was available on rates of stunting or wasting, so achievements over the life of the project could not be measured, but from endline to follow-up, rates of stunting were unchanged (remaining at 40%), and rates of wasting fell slightly but significantly (reaching 25% at follow-up).

The percent of women accessing prenatal and postnatal care in health centers continued to increase from baseline through the endline and follow-up periods. In addition, rates of pregnancy and postnatal complications continued to decline across the project's life and through follow-up. The percent of institutional deliveries, which rose from 20 percent to 76 percent between baseline in 2002 and the end of the POP in 2010, continued to increase to 87 percent at follow-up in 2012. Rates of immunization were also well maintained or improved overall, with the biggest improvements in coverage in the states that had the lowest coverage at endline. These positive results suggest that the transition from reliance on village health workers to reliance on services provided through Government of India health centers and clinics worked well. In particular, the improvements in institutional deliveries and immunizations may be due to the activities of the accredited social health activists, community-based health workers whose pay is linked to improvements in these indicators.

Overall rates of stunting declined in CRS project areas between endline and follow-up, reaching 35% at follow-up. Among the seven states studied, however, three experienced a significant increase in stunting, one experienced a non-significant increase, and three experienced declines (one significant). (Note that the overall figure reflects the substantial differences in sample sizes across the individual states.) The pattern for wasting was similar; across the seven states studied, the prevalence of wasting fell from 25 percent to 22 percent but with three states experiencing significant declines and one experiencing a significant increase. The only anthropometric indicator measured at baseline in 2002 was underweight (weight-for-age z-score < -2). This indicator showed a slight improvement from 37 percent to 34 percent between the POP baseline (2007) and endline (2010), and there was no significant change in the indicator between endline

in 2010 and follow-up in 2012, with an overall prevalence of 35 percent.

The assumptions underlying CRS's maternal and child health and nutrition interventions, and the Government of India health services that took responsibility for these activities when CRS exited, was that improving maternal caring practices would ultimately affect rates of malnutrition. Multivariate logistic regression adjusting for tribal and caste status, measures of household socioeconomic status, and the age and sex of the child found, however, that maternal care practices, including participation in growth monitoring, not reducing feeding during illness (continuing to breastfeed or provide other fluids), and compliance with appropriate breastfeeding practices (exclusive breastfeeding practices to 6 months of age and introduction of complementary feeding from 7 to 9 months of age), showed no significant effect on the probability of a child being stunted. These results are similar to those for CARE areas, where no relationship was seen between key child care practices and rates of stunting (except that in CARE areas, exclusive breastfeeding did show an association with reduced stunting). As noted above, the present study did not intend to assess project impact, but rather to identify factors leading to the sustainability of those changes in activities, outcomes, and impacts that were achieved by the project.

### **AGRICULTURE: CRS**

The focus of the agriculture component of CRS's FFP development project was watershed development. CRS planned to link project-targeted farmers with a national guaranteed employment scheme (the National Rural Employment Guarantee Act) to support labor for the maintenance and repair of watershed infrastructure. CRS also planned to link farmers to the government agricultural credit scheme (the National Bank for Agriculture and Rural Development) to access credit. The percent of land under irrigation increased more than twofold,

from 8.7 percent at POP endline in 2010 to 21.7 percent at follow-up in 2012, and the percent of farmers irrigating their land similarly increased significantly in all states. The amount of land that was double cropped increased on both irrigated and non-irrigated land between baseline in 2002 and endline in 2010, with a small decrease at follow-up, but nowhere near to baseline levels. In addition, the percent of farmers engaged in sales rose dramatically, reaching close to 100 percent in three of the four states studied at follow-up, and revenue from agricultural sales similarly increased during this time frame. The number of days of grain sufficiency (when the household could rely on its own production for its consumption) and the percent of households reporting year-round grain sufficiency also increased from endline to follow-up in CRS areas. Given the sustained improvements in irrigation, crop sales and revenue, grain sufficiency, and the use of the National Rural Employment Guarantee Act to support labor in watershed infrastructure maintenance, among other indicators, the causal pathway underlying the design of CRS's agriculture sector interventions appears to have been supported, and the project's sustainability strategy for these interventions appears to have been successful at the time of this study.

### **EDUCATION: CRS**

In the education sector, CRS provided school meals at Early Child Development Centers, primary schools, and boarding schools run by the Catholic Church. The education intervention also included improving teaching methods through teacher training, and conducting outreach to ensure that age-eligible children enrolled in school. CRS's exit strategy for these activities was to "phase over" (transfer responsibility of) the school feeding activities to the Government of India-run Mid-Day Meals program, though this approach had only limited success. The mandate of the Mid-Day Meals program is to supply food to government schools. However, the CRS project implemented school feeding activities in private

schools and boarding schools run by or affiliated with the Catholic Church. While the Mid-Day Meals program is authorized to serve private schools, especially those targeting minorities and underserved populations (as the CRS project's schools did), only a few of the schools formerly supported by CRS had successfully obtained authorization to participate in the Mid-Day Meals program at the time of follow-up. It seems that some schools did not start the application process until close to the end of the POP, and principals reported in qualitative interviews receiving variable levels of assistance from the CRS project in applying to the program. Boarding schools are not eligible for the Mid-Day Meals program, and the boarding schools whose school feeding was previously supported by CRS's FFP project had to rely on other sources of support, including other donor organizations' and church funds.

Improvements in net school enrollment achieved between the CRS project's 2002 baseline and 2010 POP endline were sustained at follow-up, and, while timely enrollment in Class I fell somewhat between endline and follow-up, the rate of student retention to Class IV was high and sustained.<sup>4</sup> Qualitative interviews suggested that the new educational methods introduced under CRS's FFP development project continued to be used following the project's closure. Parents also cited the high quality of the education (compared with public schools) as one reason for continuing to send their children to these schools even in instances where school meals had been withdrawn.

## Conclusions and Recommendations

The study findings in India demonstrate that successful phase-over to government programs depends, in part, on the resources, capacity, and commitment (motivation) of government entities to provide services; these three factors must be

present at the level of the national government to facilitate the sustainability of project activities, outcomes, and impacts post-project. In India, the strategy for sustainability in all FFP development project sectors was to phase over to existing Government of India programs that combined these three critical factors: resources dedicated to the programs, functional infrastructure at the national and state levels (capacity), and a legal commitment to provide services (motivation). However, the findings of the India study also underscore that successful phase-over to government programs further depends critically on effective local implementation of national programs, and therefore effective linkages between local activities and the Government of India programs at the state and national levels are important. The study team observed wide variability in the continuation of activities, outcomes, and impacts across states and among localities within states, suggesting that the systems put in place at the national level differed in their implementation at the state and local levels, yielding different results from the same system in different contexts.

Part of this difference is attributable to the extent to which linkages had been established and were functional prior to project exit. Clear linkages had been established during project implementation and tended to be effective in the health sector (with the Integrated Child Development Service and National Rural Health Mission) and agriculture sector (with the National Rural Employment Guarantee Act), but where linkages had not been clearly established (e.g., with the Mid-Day Meals program to substitute for FFP-supported school meals), the activities did not continue post-project. Relatedly, the study found that the overall timing of phase-over is also critical to its effectiveness: transitions should be gradual and project-established/project-strengthened systems should be operating independently prior to project exit.

<sup>4</sup> Class I is equivalent to first grade. Primary schools in India cover classes I–IV, targeting children 6–10 years of age.

In addition, the study found that, in many instances, motivation for service provision can be maintained through pay-for-performance and salary models. In the health sector in India, two categories of frontline workers are paid according to different models: *anganwadi* workers are salaried, while accredited social health activists are paid on the basis of specific performance indicators. These performance indicators (e.g., institutional deliveries, complete immunizations) were well maintained or improved at the time of follow-up.

Finally, the study findings demonstrate that it is critical to verify the validity of a project's underlying theory of change at the project design stage and to reassess its validity throughout project implementation. For example, despite the successful continuation of many project activities in the health sector, the underlying impact of improved child nutritional status (wasting, stunting) was not consistently achieved across the two projects, raising the question of whether the project activities were sufficient to address this goal.

### RECOMMENDATIONS FOR PROJECT DESIGNERS AND MANAGERS

- Carefully assess the factors of financial resources, technical and administrative capacity, and commitment on the part of the government (at all levels) as conditions for adopting a strategy of phase-over to government entities.
- Critically examine the mechanisms by which communities and beneficiaries will gain access to the services and resources provided by national government programs: resources, capacity, and motivation must be present at every level down to the most local (including at the level of the beneficiary) for project activities, outcomes, and impacts to be sustained.
- Allow sufficient time to ensure the technical capacity of relevant government entities and, when necessary, establish or strengthen

these entities' existing organizational and administrative systems; engage the relevant government entities from the beginning of the project and allow a gradual transition to independent functioning of any system, to allow time for troubleshooting prior to project closure.

- Critically assess the theory of change underlying the design of the project to ensure that, if sustainability of activities, outcomes, and impacts is achieved, the project's goals will be met and sustained.
- Critically assess the assumptions underlying each component of the sustainability plan; ensure that the assumptions are valid and have been tested.

### RECOMMENDATIONS FOR DONORS/FUNDERS

- Build time into the project cycle after resources are withdrawn so that assessment of the sustainability of activities, outputs, and impacts may continue after the endline evaluation. This was done in the case of the FFP-supported development projects in India (the POP, which was the final project cycle, was devoted to the process of phase-over), and should be considered for incorporation into future development projects.
- Set aside funding for post-project evaluations as a matter of donor policy.
- Incorporate indicators of sustainability, along with impact indicators, into project evaluation, to ensure that a focus on immediate impact does not jeopardize investment in longer-term sustainability. The India projects' POPs assessed not only impacts, but also the persistence of activities, behaviors, and administrative systems that were presumed to be conducive to sustained impact. Endline and follow-up assessments of future projects should include these other areas of inquiry.
- Allow sufficient time in the project cycle for design modifications if activities are not achieving the desired impacts, and ensure time

for gradual phase-over to the government or other entity tasked with continuing project activities.

### RECOMMENDATIONS FOR FUTURE RESEARCH

- Conduct research into the causal pathways that determine the nutritional outcomes for children in India. Despite the sustained implementation of many of the Government of India programs aimed at reducing childhood undernutrition, this key impact indicator was not consistently achieved. Research is needed to identify the barriers to achieving this goal.
- Conduct qualitative and quantitative assessments to identify the factors underlying the variability among states and localities within states in successful implementation and sustainability of project activities, outcomes, and impacts. Use information from the POP endline, the present follow-up study, and other sources to identify outliers and develop explanations for variable success that could inform future programming.
- Explore the differential impact on worker effectiveness and beneficiary outcomes of the alternative models of salary and pay-for-performance as a basis for remuneration, as demonstrated in the cases of *anganwadi* workers and accredited social health activists.
- When possible, implement pre-/post-studies using randomly assigned control groups to strengthen conclusions and permit cause-and-effect attribution.



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