



Growing and Learning Together in Fostering Multisectoral Participation for Sustaining Interventions: Lessons from 3 Successive Integrated Multidisciplinary Interventions in Rural Ghana

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ABSTRACT

Despite the recognition of nutrition as a multisectoral development issue, institutional silos persist as barriers to addressing community nutrition challenges effectively and sustainably. Over the past 2 decades, 3 integrated agriculture, livelihood, nutrition, and health interventions have been implemented in rural communities across Ghana, aimed at nurturing multisectoral collaborations to enhance institutional capacity, women's empowerment, children's diets and nutritional status, and general household well-being. Using information from published articles on the interventions, workshop reports, informal institutional engagements, and field notes, insights are presented on the efforts to garner multisectoral participation to sustain these interventions. Challenges and opportunities encountered in the process of growing and learning together relative to overcoming institutional cultures, building trust, empathizing with partners' institutional challenges, making collective decisions, and building common ownership and accountability are explored. Fostering effective multisectoral participation is a dynamic process of continuous learning. *Curr Dev Nutr* 2022;6:nzac124.

Keywords: participation, sustainability, multisectoral, rural, Ghana

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Abbreviations: ASF, animal-source foods; ENAM, Enhancing Child Nutrition Through Animal Source Food Management Project; FBO, farmer-based organization; Linking Up, Scaling Up Women's Agripreneurship Through Public-Private Linkages to Improve Rural Women's Income, Nutrition, and the Effectiveness of Institutions in Rural Ghana project; MJSC, multisectoral joint steering committee; MOFA, Ministry of Food and Agriculture; NGO, nongovernmental organization; Nutrition Links, Building Capacity for Sustainable Livelihoods and Health Through Public-Private Linkages in Agriculture and Health Systems' project; WPFA, women poultry farmers' association.

Introduction

Nutrition and development stakeholders long advocated for multisectoral programming to address the multidimensional causes of malnutrition, but these efforts waned, leading to a period of "nutrition isolationism" emphasizing nutrition-specific actions primarily delivered through the health sector (1). In the early 2000s, there was a return to multisectoral considerations, and it is now widely accepted that both nutrition-specific and nutrition-sensitive interventions are needed to address malnutrition (1–5).

Efforts around multisectoral nutrition have largely emphasized national-level coordination. District-level stakeholders were reportedly less aware of multisectoral approaches than their national-level counterparts in some Scaling Up Nutrition countries (6). Research efforts to foster and sustain subnational-level multisectoral engagement may help

build capacity and create awareness to bridge the gap between national and subnational stakeholders.

Implementers, beneficiaries, and funders aspire for beneficial research outcomes to be sustained (7, 8), but sustainability plans for nutrition-sensitive interventions requiring multisectoral participation are rare. This paper shares insights from efforts to garner multisectoral participation to sustain 3 successive nutrition-sensitive interventions across Ghana over the past 20 years.

Historical Progression of the Research Projects

Following experimental evidence confirming the importance of animal-source foods (ASF) for children's nutrition and cognition, the United States Agency for International Development's Global Livestock

Collaborative Research Support Program implemented a 2-phased competitive grants scheme (9–11). Phase 1 supported the establishment of multidisciplinary teams of university researchers from the United States and sub-Saharan African countries to develop problem models on the constraints to ASF in children's diets and recommend interventions through formative research. Phase 2 grants supported research to test the recommendations from phase 1. The Iowa State University and University of Ghana collaboration that was awarded the phase 1 and phase 2 grants included researchers in human nutrition, animal science, agricultural economics, agricultural extension, and anthropology. The phase 1 formative research undertaken in 2003 led to the delineation of an integrated livelihoods and nutrition education intervention approach, which was tested in 3 regions of Ghana as the Enhancing Child Nutrition through Animal Source Food Management Project (ENAM; 2004–2009) for the phase 2 award (12).

Five years later, with funding from Global Affairs, Canada, the intervention approach was adapted for the Building Capacity for Sustainable Livelihoods and Health Through Public-Private Linkages in Agriculture and Health Systems' project (Nutrition Links; registered at clinicaltrials.gov as NCT01985243) in the Eastern region of Ghana. Insights from attempts to sustain ENAM and Nutrition Links informed the design and implementation of the ongoing Scaling Up Women's Agripreneurship Through Public-Private Linkages to Improve Rural Women's Income, Nutrition, and the Effectiveness of Institutions in Rural Ghana project (Linking Up; registered at clinicaltrials.gov as NCT03869853), which followed Nutrition Links with funding from the International Development Research Centre.

Conceptualizing Multisectoral Participation and Sustainability

Here, multisectoral participation and program sustainability are defined and a framework is presented to guide the discussion of the efforts to sustain the 3 projects.

Multisectoral participation

Multisectoral participation involves the engagement of stakeholders from diverse governmental, nongovernmental, civil society, donor, academic, and private institutions (13). Stakeholder engagement is “an iterative process of actively soliciting knowledge, experience, judgement and values of individuals selected to represent a broad range of direct interests in a particular issue, for the dual purpose of i) creating a shared understanding and ii) making relevant, transparent and effective decisions” (14). In this paper, multisectoral nutrition refers to engaging varied institutional stakeholders representing different sectors (e.g., agriculture, health, education, finance) to address nutrition challenges.

Multisectoral participation takes different forms with varying degrees of involvement. Harris and Drimie (15) distinguished the following 4 levels of sectoral involvement along a continuum of stakeholder engagement processes: 1) line functioning, where there is limited cross-sector communication; 2) multisectoral linkage, where 2 or more sectors maintain their sectoral specialization while loosely engaging on certain issues; 3) intersectoral collaborations, where 2 or more sectors may share resources and personnel for joint planning on issues but main-

tain their sectoral specializations; and 4) integration, where sectors pool their resources to work in unison.

Goodman and Sanders Thompson (16) proposed the following 3 broad categories of engagement between researchers and stakeholders: 1) nonparticipation (largely researcher-driven activities); 2) symbolic participation (discretionary use of stakeholder inputs by researchers); and 3) engaged participation (stakeholder-driven research). Warren et al. (17) also distinguished between unidirectional engagements (primarily researcher-driven research, with limited stakeholder involvement) and bidirectional engagement (strives for stakeholder-driven research).

Program sustainability

Program sustainability is the extent to which an evidence-based intervention can continue delivering intended benefits after external support ends (18). Shediac-Rizkallah and Bone (19) developed a program sustainability framework that we adapted to describe the efforts to sustain the 3 research projects. In the original framework, program sustainability is influenced by the following: 1) factors in the broader community environment (socioeconomic, political, community participation); 2) project design and implementation factors; and 3) factors within the organizational setting of the implementing institutions. Factors in the broader community environment also directly influence the other factors. In the adaptation (Figure 1), factors in the broader community environment are replaced with multisectoral stakeholder participation as the central influencing factor. Also, bidirectional arrows are used to represent feedback from lessons learned under each element, informing modifications within and across the elements and projects.

Development of the Intervention Approach

The intervention approach for the 3 projects emanated from the 2003 pre-ENAM formative research (12). Regional and district Ministry of Food and Agriculture (MOFA) managerial stakeholders facilitated the selection of study communities while frontline personnel facilitated engagements with community leaders. Participatory appraisal processes helped acquaint the research team with the communities and engage community stakeholders about the research. Key informant interviews and focus group discussions facilitated data collection on facilitators and barriers to children's ASF consumption and potential solutions from the perspectives of community leaders and residents, as well as agriculture, nutrition, and health-based institutional personnel. A problem model specifying the constraints to children's ASF intakes, with poverty as a central constraint, was developed during a stakeholder consensus workshop. The stakeholders recommended an integrated intervention comprising microcredits, entrepreneurship, and nutrition education.

Stakeholder Participation in Project Design and Implementation

The 3 projects had different objectives and target groups and engaged different combinations of institutional stakeholders. Here, we summarize stakeholder participation in designing and implementing the research activities, the key research outcomes, and lessons learned across the projects.

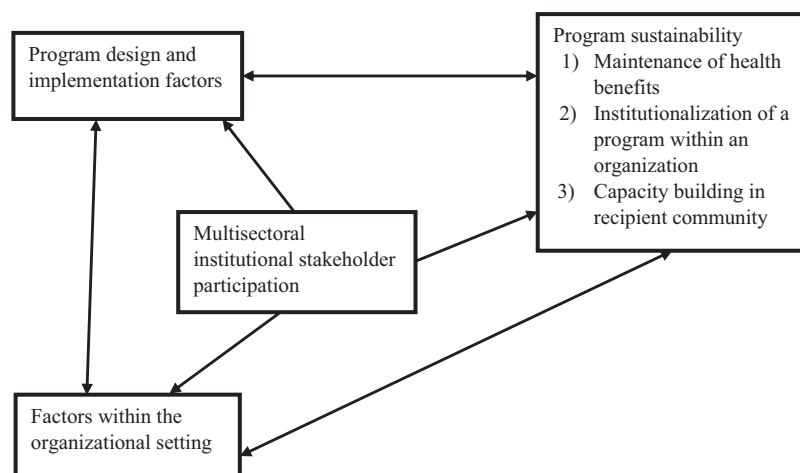


FIGURE 1 Adapted from the framework of program sustainability developed by Shediac-Rizkallah and Bone (19), reflecting the centrality of multisectoral stakeholder participation in influencing the other elements. The bidirectional arrows reflect feedback loops where lessons learned inform changes within and across the elements across the ENAM, Nutrition Links, and Linking Up projects. Abbreviations: ENAM, Enhancing Child Nutrition Through Animal Source Food Management Project; Linking Up, Scaling Up Women’s Agripreneurship Through Public-Private Linkages to Improve Rural Women’s Income, Nutrition, and the Effectiveness of Institutions in Rural Ghana project; Nutrition Links, Building Capacity for Sustainable Livelihoods and Health Through Public-Private Linkages in Agriculture and Health Systems’ project.

Design and implementation

Each project followed the recommended interventions from the ENAM formative phase (Table 1). Workshops and qualitative interviews facilitated stakeholder inputs in decisions about the specific intervention modality adopted. All 3 projects commenced with an inception workshop, which was preceded (ENAM) or followed (Nutrition Links and Linking Up) by a qualitative needs assessment. Stakeholder relationships established in Nutrition Links were leveraged to support decisions on study sites for Linking Up.

Best practices in microcredit delivery discussed during the ENAM inception workshop guided decisions on the most appropriate microcredit strategies to adopt for the project. These included Freedom from Hunger’s “Credit with Education” program (regular education meetings as a condition for loans) and Heifer’s “Pass on the Gift” input-credit methodology (transfer of input value and skills to others in the community) (20). These 2 microcredit models were attractive because of their potential for sustainability. However, the models were applied differently across the 3 projects. With ENAM (21) and Linking Up, loan recipients were required to repay the full input value received in cash, but with Nutrition Links, loan recipients were only required to make in-kind contributions. Further, with Nutrition Links, the enterprise for the loan (vegetables and poultry egg production) was predetermined by the research team, with women invited to participate through sensitization engagements, whereas with ENAM and Linking Up, iterative engagements guided eligible women to choose the best enterprise for them.

Project staff facilitated intervention deliveries in ENAM and Nutrition Links. Given the unlikely sustainability of interventions delivered using project staff, the intent of Linking Up has been to integrate implementation within the permanent institutions from the start. As an agriculture-based intervention, implementation is based on MOFA’s service delivery modalities using farmer-based organizations (FBOs)

overseen by extension workers. Adopting existing FBOs rather than project-formed groups was an attempt to mainstream intervention delivery within MOFA. The FBO structure, which includes regular group meetings, provides a platform for delivery of regular community services by other sectors (e.g., health, nutrition, and business). The research team and nongovernmental organization (NGO) partners supported intervention delivery by the institutions through developing trainer-of-trainers capacity, developing training materials, and facilitating institutional coordination.

With Nutrition Links, an advisory multisectoral joint steering committee (MJSC) was instituted, comprised of the core project team and representatives from the agriculture and health ministries, local government, rural bank, and community advocacy groups. The MJSC met annually to review progress and the subsequent year’s workplan.

Key outcomes and lessons learned

ENAM.

The integrated intervention approach was associated with improved caregivers’ child feeding knowledge, household food security, children’s ASF intakes, and children’s growth, as well as greater perceived caregiver self-confidence and independence (22–26).

All the women achieved 100% loan repayment. Thus, the loan funds were recuperated, demonstrating the women’s credit worthiness, which helped facilitate linking them to the rural banks. Demonstrating credit worthiness was an important lesson learned that informed the intervention strategy adopted for Linking Up, where sustainability is the primary objective.

Nutrition Links.

Intervention households had decreased food insecurity, increased women’s access to income, and improved child nutrition (27). However, egg consumption was limited, suggesting a need for additional nutrition

TABLE 1 Intervention design and implementation factors

	ENAM	Nutrition Links	Linking Up
Funding	United States Agency for International Development Through Global Livestock Collaborative Research Support Program	Global Affairs, Canada	International Development and Research Centre, Canada
Overall objective	To address caregivers' income and knowledge barriers to including ASFs in children's diets	To enhance home availability of nutrient-dense foods for improving children's complementary feeding diets and nutritional status	To improve the quality of life of rural Ghanaian women agripreneurs and their families. (this is a follow-up on the Nutrition Links project with the intention of sustaining and scaling up promising activities)
Study design	Quasi-experimental	Cluster randomized controlled trial	Quasi-experimental
Target group	Caregivers with children 2 to 59 months	Caregivers with children 0 to 24 months	Women in FBOs overseen by frontline agricultural workers
Study location	Three regions (covering the 3 agroecological zones of Ghana): same communities where formative research was done by the same research team	1 district (Upper Manya Krobo District) in the Eastern region	3 districts in the Eastern region
Participating stakeholder institutions	Governmental MOFA Ghana Health Service Nongovernmental Heifer Project International Freedom from Hunger Private Rural banks Academia Researchers (USA, Ghana, Canada) Leveraged previous relationships from the formative research Key informant interviews to learn best practices in financial support strategies for women's livelihoods Best-practices consensus-building workshop Educational materials development workshop Community-based trainings Dissemination workshop	Governmental MOFA Ghana Health Service Nongovernmental Heifer Project International World Vision, Canada, and Ghana Civil society Community advocacy Academia Researchers (Canada, Ghana) Institutional stakeholder needs assessment Consultative meetings Multisectoral joint steering committee meetings (annual) Project implementation partners meetings Project launch and inception workshop Dissemination workshop	Governmental MOFA Ghana Health Service GES Nongovernmental Heifer Project International Private Rural banks Academia Research team (Canasa, Ghana) Leveraged previous relationships established in the Nutrition Links project District multisectoral stakeholder consultations Qualitative needs assessment research Inception and quarterly coordination workshops
Processes used to identify and engage with stakeholders			

(Continued)

TABLE 1 (Continued)

	ENAM	Nutrition Links	Linking Up
How institutional stakeholders were involved in the project	Qualitative research participants Decision on study sites Shared expertise on financial support strategies Supported with community mobilization and engagements Repayable microcredit loans Entrepreneurship education Child feeding education emphasizing ASF	Qualitative research participants Discussion and feedback on annual work plans As members of multisectoral joint steering committee Input loans for poultry and home gardens Child feeding education (emphasis on food diversity and nutrient-rich foods) Contribution to passing on the gift Eligible women in randomly assigned intervention communities invited to participate Interest-free poultry and home garden input loans 12-month loan cycle Weekly repayment contribution towards supporting a new participant (Heifer pass on the gift concept)	Decisions on scale-up communities Decisions on study participants and communities through FBO selection processes Decisions on agricultural enterprises to promote Repayable inputs loans Entrepreneurship education Education delivered by institutional staff from different sectors (health and nutrition, business, education)
Intervention approach adopted	Women self-select from a credit and savings association, where they are guarantors for each other's loans Interest-free loans (as inputs for poultry-based IGAs; cash for other IGAs) 16-week loan cycles Required to save a predetermined percentage of loan received Weekly facilitated meetings for education (nutrition and entrepreneurship), loan repayments, and savings contributions Project hired staff Heifer project (poultry activities) Seconded agricultural extension staff (1 study region)	Women in purposively selected FBOs Input loans with 5% interest for selected IGAs (either poultry or horticulture value chain) 3- and 12-month loan cycles for horticulture and poultry enterprises, respectively Encouraged to regularly save Twice-weekly regular FBO meetings (with planned and unplanned educational sessions with institutional stakeholders)	Women in purposively selected FBOs Input loans with 5% interest for selected IGAs (either poultry or horticulture value chain) 3- and 12-month loan cycles for horticulture and poultry enterprises, respectively Encouraged to regularly save Twice-weekly regular FBO meetings (with planned and unplanned educational sessions with institutional stakeholders)
Selected key components of the microcredit component of the intervention approach	Women self-select from a credit and savings association, where they are guarantors for each other's loans Interest-free loans (as inputs for poultry-based IGAs; cash for other IGAs) 16-week loan cycles Required to save a predetermined percentage of loan received Weekly facilitated meetings for education (nutrition and entrepreneurship), loan repayments, and savings contributions Project hired staff Heifer project (poultry activities) Seconded agricultural extension staff (1 study region)	Women in purposively selected FBOs Input loans with 5% interest for selected IGAs (either poultry or horticulture value chain) 3- and 12-month loan cycles for horticulture and poultry enterprises, respectively Encouraged to regularly save Twice-weekly regular FBO meetings (with planned and unplanned educational sessions with institutional stakeholders)	Women in purposively selected FBOs Input loans with 5% interest for selected IGAs (either poultry or horticulture value chain) 3- and 12-month loan cycles for horticulture and poultry enterprises, respectively Encouraged to regularly save Twice-weekly regular FBO meetings (with planned and unplanned educational sessions with institutional stakeholders)
Project implementors	Project hired staff Heifer project (poultry activities) Seconded agricultural extension staff (1 study region)	Project hired staff	Institutional stakeholders (agriculture, health, education (GES), business advisory centers, etc.)

Abbreviations: ASF, animal-source foods; ENAM, Enhancing Child Nutrition Through Animal Source Food Management Project; FBO, farmer-based organization; GES, Ghana Education Service; IGA, income-generating activity; Linking Up, Scaling Up Women's Agrpreneurship Through Public-Private Linkages to Improve Rural Women's Income, Nutrition, and the Effectiveness of Institutions in Rural Ghana project; MOFA, Ministry of Food and Agriculture; Nutrition Links, Building Capacity for Sustainable Livelihoods and Health Through Public-Private Linkages in Agriculture and Health Systems' project.

education. The value of regular facilitated engagements with program beneficiaries observed from ENAM was applied in Nutrition Links to facilitate egg marketing and the delivery of nutrition education, as well as networking among the women.

During MJSC meetings, reviews of process data generated meaningful conversations around addressing implementation challenges and prompted MJSC members to become very vested in the project activities, as evidenced by project activities being acknowledged in their institutional annual reports. In some instances, MJSC members proactively engaged project beneficiaries with unique challenges and recommended solutions. A key challenge was the apparent unwillingness of some beneficiaries to repay their loan or use egg sale profits for poultry medications and feed, despite the project eliminating part of the loan repayment. It appeared that removing the repayment responsibility diminished the sense of ownership of the enterprise. In contrast, the ENAM beneficiaries had shown a strong sense of ownership.

Linking Up.

The first cycle participants achieved 100% repayment of their loans. Lessons learned from ENAM relative to women working cooperatively to market eggs from the poultry enterprise were incorporated in the training to the Linking Up women, resulting in groups of 3–5 women cooperatively selling to aggregators for greater efficiency in egg marketing (28).

Program sustainability

Program sustainability comprises the following: 1) maintenance of program benefits; 2) institutionalization; and 3) capacity building in the recipient community (Figure 1).

Maintenance of program benefits

In a postintervention assessment of ENAM children (then aged 13–15 years) in 1 region, there were high prevalences of stunting (26%) and anemia (33%), with no intervention group differences in these indicators (29). There are currently no postintervention studies on Nutrition Links and Linking Up.

Institutionalization

ENAM.

Additional funding in ENAM's final year facilitated the transfer of project activities to rural banks. Collaboration with Freedom from Hunger and the willingness of the intervention women to comply with the bank's loan interest rate (about 30% per annum) facilitated the institutionalization. Twelve months later, the bank officials reported 100% loan recovery and new funds invested to scale up the program. One bank that inherited 2 ENAM groups with 40 women had 31 new groups and 782 women (30). The postintervention study showed that the microcredit program had been sustained without the nutrition education component (29).

Nutrition Links.

Towards the project's final year, the MJSC members appealed for a dedicated sustainability planning meeting, at which a MOFA-led committee oversaw the planning to sustain the poultry intervention. A women poultry farmers' association (WPFA) was formed for Nutrition Links participants and interested others to operate as an FBO. Monthly meet-

ings initiated with the WPFA by the committee were discontinued due to an inability to integrate the group within the routine operations of frontline staff.

Linking Up.

The recuperated loan funds will be institutionalized as a revolving fund in the rural bank and managed by a 2-tier multisectoral committee system (three 5-member district committees and one 7-member Apex committee).

Capacity building in recipient communities

Community-based, livelihood-specific technical training, as well as training in entrepreneurship, financial literacy, gender equity, and nutrition, were provided to participants. In ENAM and Nutrition Links, community-wide food demonstrations and gender equity trainings were also carried out. With ENAM and Linking Up, low literacy nutrition education and entrepreneurship manuals were developed to facilitate peer-to-peer learning to supplement irregular institutional engagements with participants. There are currently no evaluations on the maintenance and continued use of the knowledge and skills received.

Factors within the organizational setting

The institutional capacity to support continuation, integration of the intervention within institutional structures, and program championship and leadership are important for program sustainability. The nutrition sensitivity of the 3 projects hinged partly on the provision of nutrition education to beneficiaries. However, there has been limited support for nutrition education delivery, due partly to the insufficient community presence of nutrition-dedicated frontline staff.

Besides the rural banks, all the stakeholder institutions require donor funding to operate, thus confining effective service delivery within the time frames of funded projects. Donor dependency has contributed to apathy and a culture unsupportive of sustainability among permanent institutions. For example, in 1 project, a frontline staff resisted promptings to continue supporting a beneficiary group after the group completed its project obligations.

Integration of the intervention within existing programs or services.

The microcredit component of ENAM was successfully integrated within partner rural banks.

Linking Up has the objective to integrate implementation in permanent institutions to foster sustainability. Although the intervention is aligned with the operations of the agriculture sector, frontline staff, with a few exceptions, have not been proactive. Key informant interviews revealed that frontline staff preferred financial incentives (work bonuses, promotions, and risk allowances) to getting recognition for their work (31). In Linking Up, the project team's reluctance to provide unsustainable financial incentives was met with frustration.

Program championship and leadership.

All 3 projects were well received by the permanent institutions and communities. In Nutrition Links, the MJSC provided leadership in addressing intervention challenges, as well as in the design and implementation of a sustainability strategy. In Linking Up, while there has been institutional buy-in in principle, only a few institutional directors have shown leadership through active supervisory support.

Experiences working with different institutions and sectors *Multidisciplinary research teams (academia).*

Over time, the team has included researchers in nutrition, agriculture, anthropology, population studies, psychology, and development. Research methodologies associated with these disciplines informed study objectives and intervention approaches, as well as data collection, synthesis, and interpretation. Auxiliary data from student research have deepened understandings of project communities, institutions, and participants. The interdisciplinary engagements have resulted in the development of a popular undergraduate course that introduces University of Ghana students to multisectoral nutrition.

Banks.

Rural banks have been an important sector for implementation and sustainability. In ENAM, advocacy and provision of resources helped overcome initial reluctance by some banks to participate due to uncertainty about program success.

With Linking Up, the strong relationship built over time with the partner rural bank contributed to the bank's willingness to manage the loan fund. In contrast, another rural bank with no previous relationship with the project declined the same opportunity to collaborate. Of concern has been the bank's high interest rates charged on microcredit loans. Negotiations resulted in a reduced interest rate (from 45% to 30% per annum) for women who have previously received Linking Up loans.

NGOs.

Collaborations with NGOs have facilitated intervention delivery in communities; however, there have been some challenges due to differences in research and development viewpoints and approaches to interventions. For example, the expectation for randomization of participants for a more rigorous study design was at odds with the NGO's expectation of self-selection procedures associated with implementation best practices. Another concern for the research team was the non-standardized implementation approach of NGO partners to respond to the unique individual or community concerns. Regular progress team meetings and the institution of field documentation processes that facilitated information exchange helped address some of these issues.

Government-sector ministries.

The reach and permanence of sector ministries makes them ideal partners for sustainability planning. However, donor dependency for routine operations limits their effectiveness. Furthermore, the limited number of nutrition-dedicated frontline staff contributed to nutrition being relatively invisible in the communities. Working with an MSJC in Nutrition Links helped improve nutrition awareness among the different sectors. It was not possible to align interventions to the routine operations of all the sectoral partners. Aligning the intervention to the operations of a lead institution (agriculture for Linking Up) required extra effort by other institutions to participate, which was challenging without additional resources.

Lessons Learned

The opportunity to continue engaging with the same stakeholders was facilitated by successive funding support, which extended the lifetimes

of the projects. This was instrumental, as meaningful multisectoral partnerships take time to develop. Addressing poverty as a core aim of the intervention approach galvanized strong multisectoral buy-in across the projects, as poverty is a common challenge among the populations targeted by all rural institutions. Regular information sharing through workshops and other meetings that provided opportunities for cross-sector interactions resulted in mutual learning and an appreciation for multisectoral engagement. This was particularly evident with the Nutrition Links MJSC, where the members demanded sustainability planning toward continuity of both the community interventions and their multisectoral interactions.

Despite the efforts and successive progress in multisectoral engagement across the 3 projects, achieving and maintaining nutrition sensitivity through multisectoral involvement has been limited due to uncondicive factors within stakeholder institutions (e.g., donor dependency, inadequate nutrition dedicated staff). While the ENAM experience suggests the possibility of sustaining women's economic support through rural banks, long-term linkage with a nutrition sector may be necessary to assure continuity of nutrition results. The peer education strategy in ENAM was apparently not sustained in the long term, emphasizing the need for continued institutional support.

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Data Availability

The data described in this manuscript will be made available upon a formal request and approval by the project principal investigators (EKC and GSM).

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