

Child Survival Health Grants Program –Innovation Category  
Helen Keller International – Nepal  
in collaboration with the Nepali Technical Assistance Group

***Action Against Malnutrition through Agriculture***  
*Nepal Child Survival Project*  
*Kailali and Baitadi Districts, Far Western Region*  
***Detailed Implementation Plan***

*Cooperative Agreement GHS-A-00-00001-00*

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## Table of Contents

A. Technical Approach .....	1
1. Brief Project Overview	
2. Results Framework	
3. Key Strategies	
Goal: To reduce child malnutrition and related morbidity in Kailali and Baitadi districts	
Strategic Objective: To improve food security and nutrition and health status among children <2 and their mothers	
Result 1: Increased Year Round Availability of Micronutrient-Rich Foods	
Result 2: Improved Essential Nutrition Knowledge and Practices	
Result 3: Increased Capacity of Partners to Promote Improved Practices	
Result 4: Replicable, Integrated Food Security and Nutrition Model Developed and Shared	
4. USAID Mission Coordination	
5. Project Work Plan and Partnerships	
B. Innovation.....	12
C. Monitoring & Evaluation.....	15
D. Revisions from Original Application.....	18
E. Project Management .....	18
F. Operations Research (Annex 8)	

### DIP ANNEXES:

1. Project Work Plan
2. a. M&E Table-Kailali
2. b. M&E Table-Baitadi
2. c. Process Monitoring Plan
- 2.d. Information Use Map
3. Management/Human Resources Table
4. Project Organigram
5. Agreements
6. Job Descriptions of Key Personnel
7. Training Plan
8. Operations Research Plan
9. KPC Report
10. CSHGP Data Form
11. List of Agricultural Inputs
12. Environmental Management Strategy
13. Helen Keller International Nutrition Bulletins (6)

List of Abbreviations, Acronyms and Special Terms	
AAMA	Action Against Malnutrition through Agriculture Project (AAMA = “Mother” in Nepali)
AIN	Association of International Non-Governmental Organizations in Nepal
ARI	Acute Respiratory Infection
BCC	Behavior Change Communication
BMI	Body Mass Index
CATCH	Core Assessment Tool on Child Health
CB-IMCI	Community-Based Integrated Management of Childhood Illnesses
CDO	Chief District Office
CHD	Child Health Division
CRADLE	Community Responsive Antenatal Delivery and Life Essential Project (CARE)
CTC	Community Therapeutic Care
DADO	District Agricultural Development Office
DEO	District Education Office
DHO	District Health Office
DIP	Detailed Implementation Plan
DNFP	District Nutrition Focal Person
EHNWG	Emergency Health and Nutrition Working Group
ENA	Essential Nutrition Actions
FCHV	Female Community Health Volunteer
FWR	Far Western Region
HFP	Homestead Food Production
HFPB	Homestead Food Production Beneficiaries
HH	Household
HKI	Helen Keller International
HQ	Headquarters
IEC	Information Education Communication
IFA	Iron + Folic Acid
IFPRI	International Food Policy Research Institute
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
JSI	John Snow Research & Training Institute, Inc.
KPC	Knowledge Practices and Coverage
M&E	Monitoring & Evaluation
MCH	Maternal Child Health
MI	Micronutrient Initiative
MOHP	Ministry of Health and Population
MOU	Memorandum of Understanding
MTOT	Master Training of Trainers
NAC	National Advisory Committee
NDHS	Nepal Demographic and Health Survey
NFHP	Nepal Family Health Program

NHP	National Health Policy
NGOCC	National NGO Coordinating Committee
NNSWA	Nepal National Social Welfare Association (Nepali NGO)
NTAG	Nepali Technical Assistance Group
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
SD	Standard Deviation
SMJK	Snehi Mahila Jagaron Kendra (Nepali NGO)
SWC	Social Welfare Council
TT	Tetanus Toxoid
VA	Vitamin A
VAC	Vitamin A Capsule
VAS	Vitamin A Supplementation
VDC	Village Development Committee
VMF	Village Model Farm
WA	Weight for Age
WHO	World Health Organization
WRA	Women of Reproductive Age

## A. Technical Approach

### 1. Brief Project Overview:

Nepal has made considerable progress in reducing child and maternal mortality, but has had less success improving nutritional status. Problems are more severe in the remote Far Western Region. According to the findings of 2006 Demographic & Health Survey (DHS 2006), stunting (low height for age-HA) or evidence of chronic malnutrition among children under five is 52 percent in the FWR; wasting (low weight for height-WH) or evidence of recent severe malnutrition is an alarming 16.7 percent; and the composite measure underweight (low weight for age-WA) is estimated for the region at 44 percent. Anemia prevalence is extremely high among both women of reproductive age and young children, at over 50 percent. It is well documented that undernutrition increases mortality and reduces cognitive and human potential and the economic status of households and nations<sup>1</sup>. It is also clear that the damage from poor nutrition during gestation and the first two years of life are largely irreversible<sup>2</sup>, and that early prevention has lasting and compounding benefits<sup>3</sup>. The **Action Against Malnutrition through Agriculture** project (AAMA, or mother in Nepali), proposes to test an innovation to significantly improve nutritional status by targeting pregnant and lactating women and children less than two years of age.

Helen Keller International (HKI) and its national partner Nepali Technical Assistance Group (NTAG) and local partners Nepal National Social Welfare Association (NNSWA - Kailali) and *Snehi Mahila Jagaron Kendra* (SMJK - Baitadi) will collaborate on the innovation that merges two proven programs addressing complementary and critical facets of malnutrition in Nepal and throughout the developing world: food security and nutrition knowledge and practices. Addressing the first is HKI's signature Homestead Food Production (HFP) program, which has been bringing appropriate technologies for improved household food enrichment and diversification for almost 20 years in South Asia and for over 10 years in Nepal. This approach, establishing demonstration village model farms (VMFs) that provide technical support and inputs to affiliated beneficiary households to enable them to set up "developed" home gardens, has demonstrated positive impact on household food production, consumption and micronutrient status, as well as on women's economic and social empowerment<sup>4</sup>. The second element is the Essential Nutrition Actions (ENA) framework, which encompasses interventions targeting the key knowledge and behaviors with proven impact on nutritional practices<sup>5</sup> and on related undernutrition and mortality<sup>6</sup>. The project will cast as wide a net as possible to engage other partners in learning and replicating the model within the target areas and, eventually, beyond.

The innovation is also designed to reinforce and strengthen Nepal's highly successful Female Community

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<sup>1</sup> Victora CG et al. *Maternal and child undernutrition: consequences for adult health and human capital*. 2008 Lancet (371)9609:340-57

<sup>2</sup> World Bank, *Repositioning Nutrition as Central to Development: A strategy for large-scale action*. 2006; Washington, DC.

<sup>3</sup> Black RE, Allen LH, Bhutta ZA, Caulfield LE et al. 2008 *Maternal and child undernutrition: global and regional exposures and health consequences*. Lancet;371:243-60.

<sup>4</sup> Helen Keller International Nutrition Bulletins for Nepal (May 2001; July 2004), Bangladesh (Sept 2003; Nov 2004) and Cambodia (May 2004; December 2006). Copies will be submitted as annexes to this report.

<sup>5</sup> Guyon A, Quinn V, Rangeloson Z and Hainsworth M. 2006. *Final Report: Using the ENA approach to improve nutritional practices of women and children at scale in Antananarivo and Fianarantsoa provinces of Madagascar*. Linkages Project. *Successful community nutrition programming: Lessons from Kenya, Tanzania and Uganda*. 2002; Linkages Project. *Integrated Nutrition and Health Project (INHP-II)*. 2002. CARE/India.

<sup>6</sup> Bhutta ZA, Ahmed T, Black RE, Cousens S et al. 2008. *What works? Interventions for maternal and child undernutrition and survival*. Lancet;371:417-40

Health Volunteer (FCHV) program. Training will expand their skills for nutritional counseling and VMFs will provide a platform to facilitate and reinforce their education and outreach efforts. Where appropriate, the program will support their involvement in or receipt of homestead food production as compensation for their work on behalf of their communities. FCHVs will use VMFs as a meeting place for nutrition education discussions with the homestead food production beneficiaries (HFPBs). HFPBs will then be mobilized to reinforce the FCHV efforts by conveying key ENA messages to their wider communities. By providing a platform for mothers group meetings and engaging HFPBs in supporting the behavior change communications, the project should reduce the burden on FCHVs. For those FCHVs who become VMF owners, it will be under the condition that the enterprise is the responsibility of her entire household and not the sole responsibility of the FCHV. Additionally, HKI's prior experience with HFP suggests that other household members will help provide the labor and that, by developing production close to the household, the system reduces the burden of the traditional practice of tending to distant plots. While the challenges will be greater at start-up, once the HFP is established and a routine for ENA/BCC meetings and HFPB household visits set up, the work load will lessen.

According to the "National Survey of Female Community Health Volunteers of Nepal" conducted in 2007 by the MOHP, USAID and New Era, 76% of FCHVs reported they would like to spend *more* time on their work in the future. The survey reported that, on average, FCHVs work 1.7 hours per day 3 days per week. The issue of FCHV overload will be measured through AAMA's process monitoring. It is important to note, however, that the ENA component does not necessarily add to the workload of an FCHV, as most of the components are already part of their duties. The ENA component aims to improve the delivery of these duties through improved training in counseling and negotiation skills and the provision of a food-linked venue to have events and meet and counsel mothers. Additionally, by strengthening the HFPB mother's group and requiring HFPBs to reach 5-10 additional HHs, the HFPB group becomes a tool to enable the FCHV to reach more households more efficiently. While increasing the population reached by FCHV has the potential to increase the FCHVs workload, it is important to note that, according to the "National Survey of Female Community Health Volunteers of Nepal", "doubling the catchment population does not double the workload;" suggesting that the principle of economies of scale applies here.

In the Kailali district the project will use an adequacy assessment (comparing baseline to end line measures on a spectrum of nutrition, hygiene, food security and food production indicators) of project impact<sup>7</sup> and strive to create a district-wide model that can be replicated elsewhere. This model will attempt to improve food security and nutrition knowledge and practices for the entire population of the district, although direct participants in HFP will be only 15 percent of the population. In the Baitadi district the intervention will be implemented as a randomized community effectiveness trial. Intervention sites (Ilakas, or sub-regions) will be randomly selected and matched with control sites on economic, health and food security indicators. Baseline and end line measures of both arms will be compared (double-difference estimates) to allow for probability assessment of the impact of the intervention on child and maternal nutritional status, household nutritional practices and food production. In this model, the project will try to improve food security and nutrition practices for the entire population of the intervention Ilakas while actively involving approximately 40 percent of the populations in these areas. The elements of the implementation strategy will be same in both districts.

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<sup>7</sup>Baseline data have been collected from a district that was to serve as a control for a plausibility assessment, the neighboring terai district of Bardia, but subsequent government plans to roll out a community-based management of acute malnutrition project across that district may confound comparisons.

Over the AAMA project's life of four years (October 1, 2008-September 30, 2012) we will reach a total target population in Kailali of 149,280 women of reproductive age and 28,959 children under two with ENA behavior change communications, while HFP will benefit all children under five, or an additional 60,790 (total beneficiaries in Kailali 239,029). In Baitadi's four intervention llakas AAMA will reach a total of 20,300 women of reproductive age and 5,120 children under two with ENA and an additional 6,880 children 24-59 months with HFP. The total proposed budget requested of USAID is \$1,599,288 and the HKI/NTAG match will be \$535,231, which represents 25% of the total program cost of \$2,134,519. The technical interventions covered will be infant and young child feeding (40%), vitamin A-micronutrients (40%), control of diarrheal diseases (10%) and maternal and neonatal care (10%).

### 3. Key strategies and activities to achieve results/outcomes:

The DIP workshop in Kathmandu was held March 19-20 including participants from the Ministries of Health and Agriculture, USAID, the National Family Health Project (NHFP), UNICEF, WHO, FAO, CARE and the collaborating NGO partners. Participants expressed strong enthusiasm for the project strategy and provided valuable input on how to tailor it to the challenges of the two target districts. **Strategic planning workshops** involving more local stakeholder will be held during May/June in Kailali and Baitadi. **National and district advisory councils** will also be organized including representatives of the same groups. These councils will meet twice a year to review progress with implementation, including reports of recent LOAS and other process monitoring tools, discuss the innovation, and seek solutions to challenges. Eventually these councils are also expected to help support the replication of the project model in other districts of Nepal.

The **goal** of the project is to reduce child malnutrition and related morbidity in the Kailali and Baidadi districts of Nepal's far western region. The **strategic objective** is to the nutritional status of children <2 and their mothers (assessed by child anthropometric measures and maternal and child anemia). Contributing to the achievement of these are four results.

#### Result 1: Increased year round availability of MN-rich foods for children < 2 and their mothers

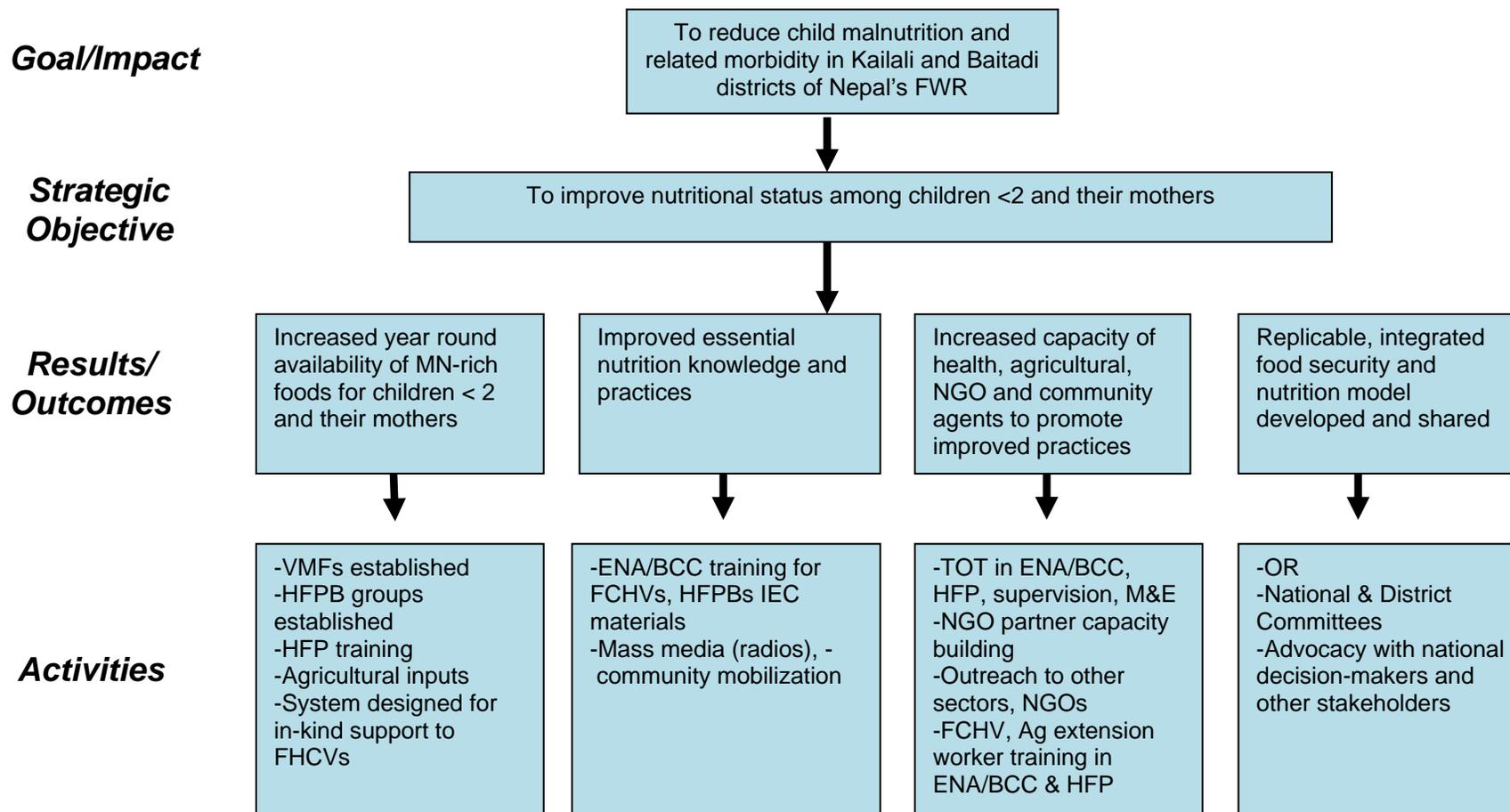
The limited availability of food, especially in variety and with high nutrient content, and high poverty rates contribute to the higher rates of stunting, underweight and anemia in the FWR. By most measures, health and nutritional status, and food insecurity is considerably worse in Baitadi than those found at both the national level and the FWR while in Kailali health status is similar to national averages but poverty is deeper<sup>8</sup>.

The baseline survey in Kailali found that while 70 percent of families have home gardens, only 11 percent of families have improved gardens (growing a greater variety of vegetables) and less than 1 percent have developed gardens (year round production). Sixty-one percent of households stated their main source of vegetables for consumption was the home garden. In addition 60 percent of households own chickens with a median brood of six, the vast majority of which are local, unimproved breeds. Thirty-four percent of households owned a milking animal. A sizeable proportion of households expressed concerns about food security: 28.6 percent said they often could not feed their children nutritious animal foods and 33 percent responded this was sometimes true. One quarter admitted facing food shortages often and another 31

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<sup>8</sup> Central Bureau of Statistics, United Nations World Food Program, and World Bank. *Small Area Estimation of Poverty, Calorie Intake and Malnutrition in Nepal 2006*, Kathmandu, Nepal.

## 2. AAMA Results Framework



percent sometimes. The baseline survey for Baitadi has not yet been conducted; research plans for the intervention in Baitadi are described in the Operations Research Annex (8).

The first steps in developing the HFP strategy for both Kailali and Baitadi will be adapting the training materials for the specific growing conditions of each district and piloting them for comprehensibility. Also crucial will be defining selection criteria for households eligible to host VMFs and to become one of the associated HFPB households. HKI's experience has shown that **careful selection of the most qualified households for VMFs** helps ensure the success of the program. During the DIP workshop the project staff and project partners agreed on the following **selection criteria for VMFs**:

- Household with at least 1200 square meters of property that is irrigable and flood free and located in close proximity to the home;
- Centrally located with 20 surrounding households the farthest no more than 30 minutes distance by foot in Kailali and 60 minutes in Baitadi;
- At least one literate and numerate HH member and adequate labor available;
- Household head an active community member.

**Selection criteria for HFPB households are:**

- At least one child under five years<sup>9</sup> or a pregnant woman;
- Have at least 40-75 square meters of property;
- HFPB must be a woman although other HH members are likely to support the garden;
- Located a maximum distance from the VMF of 30 minutes by foot in Kailali and 60 minutes in Baitadi;
- Priority will be given to lower caste and other socially excluded or disadvantaged households

FCHVs may be selected to host VMFs if they meet all the criteria listed above; in the event that more than one household is equally suitable, the FCHV will be given preference. In addition, FCHVs may become HFPBs if they meet the land criteria even if they do not have a child under five.

After the households have been selected, HKI will help SMJK and NNSWA to organize a series of **stakeholder meetings** to unite each VMF with its affiliated HFPBs and FCHV to discuss and agree to **roles and responsibilities**. These are:

- **For VMFs:** to develop the enterprise with investments from the household as well as the project; to train all HFPB households in HFP and provide them ongoing technical assistance with their home gardens; to allow the VMF to serve as a platform for meetings of the FCHVs with HFPB and other community households; to donate VMF inputs or production as an in-kind incentive for FCHV contributions to the community; serve as a community resource center for HFP; and to maintain communication and exchanges with the district agricultural development office (DADO) and other agricultural groups.
- **For HFPBs:** the household head and the target mother both have to accept the program approach and agree to feed garden production to children under five (with special preference to children 6-24 months) and women of reproductive age (especially during pregnancy and lactation; commit to make a maximum effort to practice the Essential Nutrition Actions (ENA) and thus serve as role models; commit to making visits to households outside the HFP system (at least 20 per HFPB in

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<sup>9</sup> Because we have found that on average only one in six households has a child under two we have decided to relax the criteria to include children under five.

Kailali and at least 10 per HFPB in Baitadi) to promote ENA messages and HFP practices and to refer pregnant women and new mothers to the FCHV and the VMF.

- **For FCHVs:** once trained themselves, to provide ENA training to HFPBs; organize monthly meetings with HFPBs to review and reinforce ENA messages, support the practice of the techniques for counseling and negotiating for behavior change; counsel pregnant women and new mothers identified by HFPBs and others; and make appropriate referrals to health facilities.

### Brokering relations between VMFs and FCHVs

In Kailali our early experience identifying VMFs is indicating that a large majority of FCHVs are likely to become VMF owners (many more than anticipated). Where they do not, project supervisors will facilitate the initial meetings between FCHVs and VMF heads to negotiate an acceptable partnership agreement, including incentives for FCHV efforts in behavior change. No written contracts will be signed, but supervisors will record the agreement for future mediation if necessary.

### Reaching the lower caste and low land ownership groups

The project has designed HFPB selection criteria to ensure the inclusion of disadvantaged groups. HFPBs by definition are small land owners although they are not landless. An additional selection criterion, however, gives priority to lower caste and other socially excluded groups. In years two and three, the project will endeavor to include a small number of landless HH in the project through the piloting of a small food-for-work initiative within large and successful VMFs in need of additional labor. These households will benefit from the ENA/BCC activities and will receive production as part of their compensation. HKI will be collecting data on specific land area by family and data on caste and ethnicity for each HFPB household.

### HFP Training and VMF/Home Garden Development

All training methodologies employed by the AAMA project will be based on participatory adult-centered learning techniques and emphasize building practical skills of participants. All training sessions will be no longer than 5 days and will allow time both within and in between sessions for practice and reinforcement of the key knowledge and skills. HFP training will begin with the training of master trainers who will train all village model farmers in their district and support these farmers to train their affiliated HFPB mothers. The **HFP training of master trainers** is a 4-day training to reach 25 master trainers in each district including staff of NNSWA in Kailali and SMJK in Baitadi, NTAG, and HKI/Nepal staff and DADO representatives. In addition to the technical content, this training will cover techniques and responsibilities for on-going supportive supervision of the VMFs and HFPBs. DADO staff and VMFs will eventually be expected to assume long-term responsibility for this activity. These trainers will then provide a **3-day HFP training to each VMF** (these trainings will be organized in groups of 15 VMFs). Training will cover: land usage and management (irrigation, live fencing, seed and sapling production, grafting, crop rotation, mulching and composting, and integrated pest management); crop selection, diversification<sup>10</sup> and seasonality; poultry and livestock management<sup>11</sup> (introduction of improved breeds, construction of appropriate housing

#### HFP Strategy Key Elements

##### NGO Master Training (4d)

##### VMF Training (3d)

- Land usage/management
- Crop selection/diversity
- Animal husbandry/mgmt
- ENA principles (2d)

##### Inputs

- Improved seeds, seedlings, saplings
- Improved breeds poultry & goats

##### VMF support to HFPBs

- Training of mothers (2d)
- Inputs

##### HFPB support to other HHs

- at least 10-20 surrounding VMF links to DADO

<sup>10</sup> The list of inputs to be provided is included as Annex 12.

<sup>11</sup> The animal management strategy is included as Annex 13.

structures, vaccination, improved feed preparation using local inputs, rearing and reproduction techniques, appropriate fodder for increased milk production); roles and responsibilities and planning (community outreach and leadership, providing the VMF as a platform for FCHV meetings together with incentives, strategies for mobilizing spillover to the rest of the Village Development Committee, maintaining linkages with DADO sub-centers, and providing ongoing mentoring and support to HFPBs and other motivated community members). All VMF owners will also receive a **2-day training in the principles of ENA** (those who are also FCHVs will attend the full ENA training) so that they can also help the FCHVs promote the household consumption of garden production, especially by children under two and pregnant and lactating women. One-day VMF refresher trainings will be provided in the second and third years of the project; ENA will be reinforced on an on-going basis.

**VMF development** will directly follow the training and will be supported by the master trainers and other NGO staff. It will include the provision of agricultural inputs and cost sharing by the VMF household, land preparation and planting and construction of the animal husbandry facilities. Once the initial organization of the homestead is completed the **training of HFPB mothers** will begin. This 2-day training will cover the year-round production of vegetables and fruits, animal husbandry, egg production, and the management of gardens on small plots of land. The two groups of 20 HFPBs affiliated with each VMF will be trained separately at the VMF. The VMF owners and NGO field supervisors will then provide support to the HFPB households as they apply their new skills to establish developed home gardens.

Over the course of the project, initially with the support of project field coordinators and DADO extension agents, the VMFs will continue to provide support to HFPBs. Both VMF and HFPB owners will be required to reach out to other households to promote the HFP model and encourage replication. The VMFs will cultivate seedlings and saplings, and breed chicks and to sell to HFPB and other households to perpetuate the improved agricultural production. All enterprises are expected to be profitable and sustainable within one year of their establishment, as well as to enhance the nutritional status of target beneficiaries.

**Result 2: Improved essential nutrition knowledge and practices**

The baseline survey in Kailali found the prevalence of stunting (HA < -2SD WHO 2006 reference norms) among children under 2 to be 28.7 percent, underweight (WA < -2SD WHO reference) to be 30.6 percent and wasting (WH < -2 SD WHO reference) 8.5 percent, indicating serious levels of undernutrition. Young child feeding practices are poor: 50 percent of households never fed their 6-24 month old children dark green leafy vegetables; 62.5 percent never fed fruits; 91 percent never fed eggs; 86 percent never fed chicken and none ever fed red meat. Thus only a minority of young children are receiving nutritionally enhanced complementary foods.

Hygiene practices are also very weak: only 3 percent of mothers stated they washed their hands with soap before feeding their children; 5 percent before preparing food; 6 percent before eating and 13.5 percent washed their children's hands before

<p style="text-align: center;"><b>ENA Strategy Key Elements</b></p> <p><b><u>Formative Research</u></b></p> <ul style="list-style-type: none"> <li>-Beliefs, constraints to improved practices</li> <li>-Resonant messages</li> </ul> <p><b><u>NGO Master training in ENA/BCC</u></b></p> <p><b><u>FCHV Training in ENA</u></b></p> <ul style="list-style-type: none"> <li>-Optimal breastfeeding (TIBF, 6 mos. EBF)</li> <li>-Optimal complementary feeding 6-24 mos.</li> <li>-Nutritional care of the sick child</li> <li>-Maternal nutrition</li> <li>-Control VAD</li> <li>-Integrated control of anemia</li> <li>-Control iodine deficiency</li> <li>-Hygiene</li> </ul> <p><b><u>FCHV Training in BCC</u></b></p> <ul style="list-style-type: none"> <li>-Concise "do-able" actions</li> <li>-Negotiation for behavior change</li> <li>-Counseling skills</li> </ul> <p><b><u>FCHV Discussion Groups with HFPBs</u></b></p> <ul style="list-style-type: none"> <li>-Monthly meetings at VMF</li> <li>-Interactive covering ENA &amp; BCC</li> </ul> <p><b><u>HFPB outreach to additional HH</u></b></p> <ul style="list-style-type: none"> <li>-5-10 surrounding</li> </ul> <p><b><u>Links to health services, other projects</u></b></p>
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they ate. About half (54 percent) washed hands after defecating, however. Sanitation infrastructure is very rare, with 71 percent of households surveyed having no toilet facility. Water infrastructure is better: 93 percent had a water source in their compound. Still, only 6 percent treated the water to make it safer to drink. These may help explain the high prevalence of illness: 41 percent of children surveyed had been ill the two weeks preceding the survey. Nutritional care for the sick child was also suboptimal: while 58 percent fed the child more during illness only 37 percent breastfed more. Only 24 and 29 percent were breastfed or fed more, respectively, after the illness. Only 17 percent of mothers used ORS or homemade fluids to treat diarrhea. Thus it appears that illness and inadequate catch-up growth may be major contributors to poor nutritional status in Kailali. Because of these findings a special emphasis will be given to hand washing and hygiene practices<sup>12</sup>.

Infant feeding practices appear to be better, possibly due to the activities of a child survival grant implemented by CARE in the same district. Sixty-seven percent of mothers reported initiating breastfeeding within one hour of their last birth; 85 percent fed their infants colostrum and only 13 percent admitted to prelacteal feeds. Exclusive breastfeeding from 0-5.9 months was calculated as 79 percent.

The ENA strategy is aimed at enhancing household knowledge and practice of improved nutrition choices. The training and communications plans will address the seven essential nutrition actions: 1) Optimal breastfeeding of child 0-6 months; 2) Adequate complementary feeding with continued breastfeeding for child 6-24 months; 3) Nutritional care of the sick child; 4) Maternal nutrition; 5) Control of vitamin A deficiency; 6) Integrated control of anemia; and 7) Control of iodine deficiency. Optimal hygiene practices will be given special emphasis throughout. The strategy will emphasize linkages to health services and promote appropriate care seeking behaviors, support linkages between the health and agriculture sectors, and build as many linkages as possible with other organizations and projects intervening in the project districts and beyond (including, *inter alia*, CARE's "CRADLE" child survival project in Kailali and humanitarian assistance project in Baitadi; the National Family Health Project (JSI-USAID); the International Development Research Center (IDRC) micro-finance programs in Baitadi; GTZ reproductive health project and Finnida water and sanitation projects in Baitadi).

This result will begin with **formative research** to understand the beliefs, taboos, constraints<sup>13</sup> and the authorities influencing decision-making that will have to be addressed by the BCC strategy. It will include collecting all existing materials and research that are relevant and filling in gaps in both knowledge and materials. Methods for collecting new data will be primarily key informant and possibly focus group interviews on: feeding practices and health seeking behaviors (by ethnicity); food access and food security at the household level; and hygiene beliefs and practices; FCHV activities, workload and sources of motivation; and message delivery channels. The findings will then be used to adapt the ENA training modules developed under the Linkages Project to the specific challenges of Kailali, and to shape BCC materials and plans.

As for Result 1, implementation under Result 2 will start with meetings at the VMF involving the VMF heads, HFPB mothers and the FCHV responsible for that area (who may or may not be a member of the

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<sup>12</sup> The theme of hygiene is integrated within the ENA framework but we will give it special attention during formative research, training and in key messages.

<sup>13</sup> A discussion with FCHVs in the outskirts of Kathmandu suggested that in that region mothers are compelled to resume their farming responsibilities two months after giving birth and to travel a considerable distance from their households; thus they may have no choice but to leave their infants in the care of an older child or mother-in-law for long stretches of the day.

HFP households) to introduce the expectations of the project and define roles and responsibilities (discussed in more detail above).

The training of **master trainers in the ENA/BCC** curriculum will then be organized for the NGO staff (NNSWA in Kailali, SMJK in Baitadi), and also include representatives of the District Nutrition Focal Person (DNFP) and selected health facility staff. The trainer(s) of this training will be external consultant(s) and the duration will be 10 days to allow for development of training skills as well as mastery of the subject matter. Next these trainers will organize a series of **trainings to reach all the FCHVs in the target area**, giving a strong emphasis to the negotiation for behavior change methods. The FCHV training will last four days, possibly delivered in 2-4 sessions to allow time for synthesis of new ideas and practice of new skills between sessions. A one-day refresher training will follow a year later. Next, with the support of the master trainers, the FCHVs will provide a two-day **training to all HFPBs** covering the key messages and BCC methods. This abbreviated training will be reinforced by **monthly meetings** led by the FCHV at the VMF, which will focus on specific topics and allow for more in-depth discussion of the messages and on-going practice of the skills of supporting behavior change. While the monthly meetings will be intended primarily to bolster the HFPB's knowledge and skills in ENA/BCC, other mothers in the community will also be welcome to attend and learn. There will also be a one-day refresher training for HFPBs one year after the initial ENA/BCC training. As noted earlier, the VMFs and HFPBs will contribute HFP products to an incentive package for the FCHVs. In addition, HFPBs will be expected to support the work of the FCHVs by developing a specific plan for reaching out to their neighbors (e.g., visiting 5-10 households each month) with information on the HFP system and ENA messages.

The project will also set up a strong supervision, coaching and mentoring system. The local NGO field staff will visit each FCHV every three months (in coordination with the MOHP supervisors) to observe her discussion session (recording structured observations that will feed into the process monitoring system described under M&E) and provide supportive supervision. The project will also take advantage of the quarterly meetings of FCHVs at the Ilaka level to facilitate exchanges of best practices, support for problem solving and reinforcement of skills and knowledge.

As noted, the AAMA project will also use the project advisory councils, the national NGO coordinating committee (NGOCC) and relevant national planning meetings to present the HFP-ENA model, share and harmonize key messages and activities, and report on progress and findings. Our intent is to encourage as wide a replication of project activities as possible in Kailali during the project life, and to establish channels to maximize the potential for scale-up elsewhere after the model has been evaluated and, presumably, has demonstrated an impact on maternal and child nutritional status and household food security.

### **Result 3: Increased capacity of health, agriculture, NGO and community agents to promote improved nutrition and agricultural practices**

The training programs described under results 1 (HFP) and 2 (ENA) above all involve training district agriculture and health staff and our local NGO partners NNSWA (Kailali) and SMJK (Baitadi) as master trainers capable of training community members in both technical interventions and replicating the model. They will receive regular (monthly during the first year of intervention and quarterly thereafter) supportive supervision and mentoring from both HKI and NTAG project staff over the course of the project. In the process they will also learn to provide supportive supervision (recognizing skills and achievements; joint problem solving on challenges; demonstration of improved methods) to the FCHVs, VMF owners and HFPB mothers.

HKI and NTAG staff will also train these partners to conduct and analyze the process monitoring activities described under section C below, and to use the tools to track and improve the quality of implementation in an ongoing fashion. These data will also serve to assess progress on the indicators for this result.

The growth in these technical areas and other aspects of organizational capacity relevant to project objectives (including institutionalization, networking, resource mobilization, client satisfaction and management) will be assessed in NNSWA and SMJK using the SHOUT assessment tool. An adapted questionnaire using indicators selected from the full toolkit will be administered early in the project (year 1 quarter 4) and the results discussed with the NGO staff. The same questionnaire will be administered in year 4 and scores compared with those of year 1.

It is HKI's prior experience that the targeting of women as HFPBs will ensure that the HFP element contributes to the enhancement of women's control over decisions on the utilization of income generated. Project field supervisors will also ensure that women are indeed permitted to play leading roles in the roll out of HFP and ENA activities.

#### **Result 4: Replicable, integrated food security and nutrition model developed and shared**

This result includes developing an HFP-ENA model that can be adapted and taken to scale elsewhere in the country. As noted under results 1 and 2, the technical approaches will be shared widely through the training programs. The HFP master trainers will include staff of NTAG, NNSWA, SMJK and the District Agricultural Development Offices (DADO) of each district and the ENA/BCC master trainers NTAG, NNSWA, SMJK and the District Population and Health Office (DPHO). DADO and DPHO will each attend the final day of training of the ENA/BCC and HFP training, respectively, when roles and responsibilities are defined. In addition, the adapted training modules for both HFP and ENA/BCC will be shared freely with all interested partners in Nepal. The district project field supervisors will facilitate the organization of quarterly meetings between FCHVs and health facility staff to discuss experiences and best practices in the promotion of ENA/BCC and will participate in the quarterly FCHV review meetings held at the Ilaka level and share process monitoring data and other relevant reports on the HFP-ENA model.

The national and district advisory councils will be the primary activity through which the HFP-ENA model is vetted with partners, results are shared and plans for replication encouraged. Project field supervisors will also include in their quarterly work plans social mobilization events that will encourage households not included in the VMF and HFPB groups to visit the VMFs and reproduce the HFP model. As noted, the HFPB and VMF households will also reach out to neighboring households with guidance and inputs for HFP and ENA.

#### **4. Plans for ongoing USAID Mission input throughout project implementation**

USAID/Nepal will be a partner in all key phases of implementation: developing the final Detailed Implementation Plan (DIP); participating in the National Advisory Committee, along with representatives of the MOHP's Child Health Division, selected Nepalese technical experts, and project staff; and meeting quarterly with project staff and regularly visiting project sites to review progress. HKI has already begun to form a strong relationship the USAID/Nepal Mission and USAID bilateral projects. Deepak Paudel, Program Specialist for Maternal & Newborn Health in the Office of Health & Family Planning at USAID Nepal has been assigned as the USAID/Nepal contact (POC) for the project. Senior project staff are in regular contact

with the project POC, and HKI meets formally each quarter with him and other members of the USAID Nepal Health team. The USAID POC and other staff have been present at all trainings and workshops conducted by the AAMA project to date.

In addition, HKI is a member of USAID's Child Health Group (CHG), which meets quarterly. The group consists of the staff of all USAID bilateral projects that concern child health.. Current projects and organization that are members of the USAID CHG are:

- Office of Health and Family Planning – USAID Nepal
- NFHP – John Snow International (JSI) and Save the Children (US)
- CRADEL Project - CARE
- AAMA – Helen Keller International (HKI)
- ERFPEP – Adventist Development and Relief Agency (ADRA)
- LIBON – PLAN International

HKI will continue to be an active member of the USAID-CHG and use it as a venue to share project results and innovations, seek advice from partners and discuss broader child health and nutrition issues in Nepal. In particular, HKI has and will continue to engage in close collaboration with the CRADLE and NHFP projects due to our complimentary program goals and overlapping geographic areas. Developing linkages with these USAID projects is important to ensure maximum impact of the AAMA project.

Finally, HKI is in regular contact with the USAID Nepal Mission and USAID projects in support of the development of nutrition programming in Nepal. HKI feels it is important that synergies between health and nutrition donors, implementing agencies and government counterparts reach beyond specific projects and take national challenges, priorities and strategies into account during implementation.

## 5. Project Work Plan and Partnerships

Annual reports with detailed work plans for the coming year will be submitted to the CSHGP cognizant technical officer no later than October 31 at the end of project years 1 (2009) and 3 (2011). The mid-term evaluation field work will be conducted in June/July 2010 and will be submitted no later than October 31, 2010. The end line survey for Kailali will be conducted in December, 2011 (three years after baseline) and for Baitadi in June/July 2012 (three years after baseline data collection which is targeted for June/July 2009).

The capabilities and capacities of HKI's implementing partners are described below.

**The Nepali Technical Assistance Group (NTAG)** was established as a non-governmental organization in 1993 and since then has emerged as one of Nepal's leading technical support groups, providing assistance to the Ministry of Health and Population in the implementation of community-based programs.

NTAG's areas of expertise are considerable. They include program planning and strategy development at the district and community levels, volunteer mobilization, monitoring and supervision, BCC materials development, and social marketing. Most notably, NTAG extends technical support to all of the country's almost 49,000 FCHVs, who are instrumental to the MOHP's campaign to distribute vitamin A capsules twice yearly to over 3.7 million children throughout Nepal. Additionally, NTAG has supported MOHP

training of district health personnel and FCHVs in the techniques of the Integrated Management of Childhood Illness (IMCI), which has helped to save the lives of hundreds of Nepalese. NTAG also organizes the Nutrition Information Sharing group, launched in 1999, which meets every 3-4 months to present and share data and information on nutrition and maintains a database on nutrition issues and experiences in Nepal.

**Nepal National Social Welfare Association (NNSWA)** of Kanchanpur District was established in 1990. NNSWA has grown to be one of the leading development organizations in the Far West Region of Nepal and its programs focus on this region. Its areas of expertise include: Education and Early Childhood Development; HIV/AIDS; Adolescent Reproductive Health; Nutrition; Trachoma Reduction; Women's Empowerment; and Advocacy through rights-based programs focused on Dalits, the disabled and deprived (Women, Children, Kamaiya, Arachhya Pidit and PLWHA). NNSWA's experience serving vulnerable populations and their strong ties to local communities in the project area will make an important contribution to the implementation of the project

NNSWA has partnered with HKI on agriculture, nutrition and school health programs since 1999. As a leading local NGO in the Far Western Region of Nepal, they have projects with many other international partners including: Save the Children, Handicap International, Family Health International, UNICEF, and FAO. NNSWA has participated in a number of USAID-funded projects.

**Snehi Mahila Jagaran Kendra (SMJK)** was established in 1993. Based in the Baitadi district in the Far Western hilly region of Nepal, SMJK implements health and development projects with local and international partners including the Canadian Center for International Studies and Cooperation, Caritas, and CARE. Over the past 16 years SMJK has focused on health care programs for women and children, in particular safe motherhood. Their services to mothers and newborns and their expertise in community mobilization will contribute significantly to AAMA's field capacity. Notably, SMJK Executive Director, Krishna Pun, is celebrated in Nepal for her leadership in advocating for the health rights of women and children and was awarded an Ashoka Fellowship in 2008.

## **B. Innovation**

### **Summary of the Challenge**

In rural Nepal, particularly the Far Western Region, seasonal household food insecurity is a major contributing factor to undernutrition in young children and women of reproductive age. In many months of each year households are unable to produce food in sufficient quantity and nutrition quality and do not have resources to purchase high-quality foods from the local market. Equally important, knowledge of what constitutes optimal nutrition, especially during the critical growth period from conception through the first years of life, is weak while certain cultural traditions compound the problem. At present there is no program in Nepal that attempts to address both aspects of this difficult problem. The AAMA project attempts to create such a model by marrying the health and agricultural sectors to improve household food security and nutritional status. By creating strong community-level linkages between these sectors AAMA will enable improved household food production, consumption and health.

### **Description of the Innovation & Interest in the Innovation**

The AAMA community-owned, sustainable approach will address food security and nutrition constraints simultaneously. It will teach sound nutritional practices, develop and disseminate messages targeting

traditional beliefs and motivating positive change, and increase year round food supply and diversity to enable such change. The program will provide marginalized and vulnerable groups with the technical inputs and supplies they need to improve food supply and overcome malnutrition and poverty together. Such an intervention is a natural solution to the challenges in this region of rural Nepal.

HFP will increase households' year-round access to nutritious foods and serve as a platform from which to deliver the ENA/BCC package to the most vulnerable communities and populations in Nepal. The model will thus combine improved food security, behavior change communication and under-used, high impact maternal and child interventions to improve maternal and child nutrition and health

#### FCHVs VMFs, HFPB and Community Linkages

The AAMA project will create and strengthen linkages among FCHVs, VMFs and HFPBs to create a system of mutual benefit and accountability.

Through direct partnerships between VMFs and FCHVs, the AAMA project will help Nepal's renowned, Female Community Health Volunteer system, considered the lynchpin of rural health services throughout the country, to overcome the growing dilemma of low morale and motivation among volunteers by proposing an incentive or "in-kind support" system. The government of Nepal is exploring ways to build new mechanisms for recognizing and rewarding these indispensable community agents<sup>14</sup>. The AMMA project will provide a platform to allow FCHVs to reach groups of pregnant and post-partum women and deliver trainings and the reinforcement of key ENA messages with BCC techniques. The AAMA project will generate in-kind support to improve household food security and income amongst FCHVs, either by enabling them to become VMF owners or by ensuring they receive HFP products in compensation for their nutrition education efforts.

Thus as part of the VMF eligibility criteria, VMF owners must agree to provide in-kind support (incentives) to FCHVs. This will help establish the VMF as a social enterprise with a strong connection to the surrounding community. Incentives will include agricultural inputs and technical assistance to the FCHVs based on a mutually negotiated agreement. AAMA staff will help broker the agreements between FCHVs and VMFs defining the in-kind support to be provided by each VMF. Additional agreements will outline the roles and reciprocal responsibilities among the VMFs, FCHVs, HFPBs and their wider communities.

As both an enterprise and community resource center, the VMF will also benefit from the community's understanding of the VMF as a source of agricultural inputs and as an active stakeholder in improved community health practices. By enhances its ties to the VCHVs, HFPBs and the surrounding community, the VMF will also generate income through increased sales of HFP inputs (seeds, saplings and animals).

HFPBs, marginalized women with young children as primary beneficiaries, will be taken through a process of self-improvement and personal growth to achieve life-enhancing outcomes for their families. HKI has shown in similar settings that the HFP approach builds ownership and confidence among women and results in women's empowerment within the household and beyond<sup>15</sup>. Beginning in Year 2, the roll-out strategy will include outreach by HFPBs to an additional 10-20 households (at a minimum, depending on the district) with pregnant mothers and/or children under five, reaching a wider community audience with

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<sup>14</sup> National FCHV Program Revised Strategy, Program Strategy Review Workshop January, 2003.

<sup>15</sup> Bushamuka VN, de Pee S, Talukder A, Kiess L, Panagides D, Taher A, Bloem M. *Impact of a homestead gardening program on household food security and empowerment of women in Bangladesh*. 2005. Food & Nutrition Bulletin 26(1): 17-25.

nutrition and food security messages while providing an effective referral agent for both FCHVs and VMFs. This roll-out strategy is considered an integral part of program spill-over that will be measured throughout the project.

#### *Integrating ENA and HFP Linkages through Training*

Project staff will undertake formative research to inform the adaptation to the culture and context of Nepal's FWR of training modules taken from the previous USAID-funded Linkages Project and which target health sector managers, health agents, and community volunteers. Key messages addressing misconceptions and obstacles to exclusive breastfeeding, enriched complementary feeding and improved maternal nutrition will be developed and promoted by trained agents and community members throughout the target area using state of the art techniques of behavior change communications. The training will be extended to the broadest possible spectrum of local agents, and will include FCHVs and HFPBs, so that a critical mass in the communities endorse and reinforce the key ENA messages. In addition, particular emphasis will be given to training FCHVs and HFPBs in the techniques of negotiating and supporting behavior change. Given weak health-seeking behaviors, outreach into the community will be the predominant approach. This will be enhanced by strengthening the linkages between the formal health sector and FCHVs and by training HFPBs connected to FCHVs through the VMF platform to support efforts to disseminate ENA messages.

MTOT and community-level trainings for both ENA and HFP will be closely linked to ensure a strongly integrated agriculture-nutrition approach. Complementary feeding and maternal nutrition especially lend themselves to reinforcing the link between production and consumption of high quality micronutrient-rich foods produced from the home gardens. Trainings will also be reinforced through monthly HFPB meeting/discussion sessions at the VMF and through household-based counseling and mentoring. BCC techniques at all these opportunities will assist first HFPBs and then surrounding households to adopt HFP and ENA practices. It is important that counseling and mentoring activities serve to make HFPB HHs community models and agents of change.

#### *Monitoring and Evaluation Innovation*

The AMMA project will be employing the use of two new technologies to improve both the collection and analysis of data. AAMA began using GIS to analyze trends in data during baseline data collection activities in Kailali. Detailed maps of each ward will be created plotting VMFs, HFPB HHs, health facilities, water sources and other key markers and used to layer on different data for analysis. Mapping various individual and group indicators will allow project staff to identify and present ward-level successes or challenges related to these indicators. GIS mapping will also be used with community-level stakeholders to present program issues, generate discussion and create greater awareness of local realities.

In addition, AAMA will be using PDAs programmed specifically for the conduct of LOAS for program monitoring. The use of PDAs will lower costs and improve data integrity by reducing errors and eliminating the need for data entry. More timely analysis will allow AAMA to use data more efficiently to make necessary revisions to implementation strategies.

#### **Assessing Innovation and Information Dissemination:**

The project will use a mixture of social enterprise, incentive, training, and community spill-over strategies to improve community, household, maternal and child nutrition behaviors. All modalities will be assessed to determine feasibility for scale-up at the district and VDC level through partnerships between district and VDC health and agriculture counterparts.

Project monitoring will be conducted by NGO and government partners every 4-6 months. Process monitoring (see Annex 2.c. Process Monitoring Plan) will be thorough but simple, allowing staff to collect process data as well as some outcome data that can be analyzed and used to identify and find solutions to problems in real time. The data will be entered (or downloaded in the case of LQAS) at the district level with local partners via on-the-job training from HKI. The information will be discussed at the Advisory Group Meetings at the district and national level and problems at VDC level (and VMF level) will be identified and corrections made. In addition, the project will incorporate a problem solving tool that allows community participants to monitor and correct their own work. HKI has found this approach effective in other health projects.

This project will place a high value on discovery, documentation and dissemination of process, products and results. These efforts will take place at the local community among households with model farms and home gardens, the district, national and international levels, and involve both health and agricultural sectors. AAMA staff will mobilize partners to join intersectoral nutrition action groups in which the emerging model, progress reports, and project materials can be discussed and shared with development partners beyond the project consortium so as to allow these other partners to understand and replicate the approach.

## **C. Monitoring & Evaluation**

The M&E system for the AAMA project has two elements:

1. A scientifically designed community-based baseline and end line survey to measure programs outcomes and impact; and
2. A rigorous ongoing monitoring system to track progress of program pathways and identify needs for revisions to implementation approaches as needed. A district-based multi-pronged monitoring system will be implemented in collaboration with NGO partners.

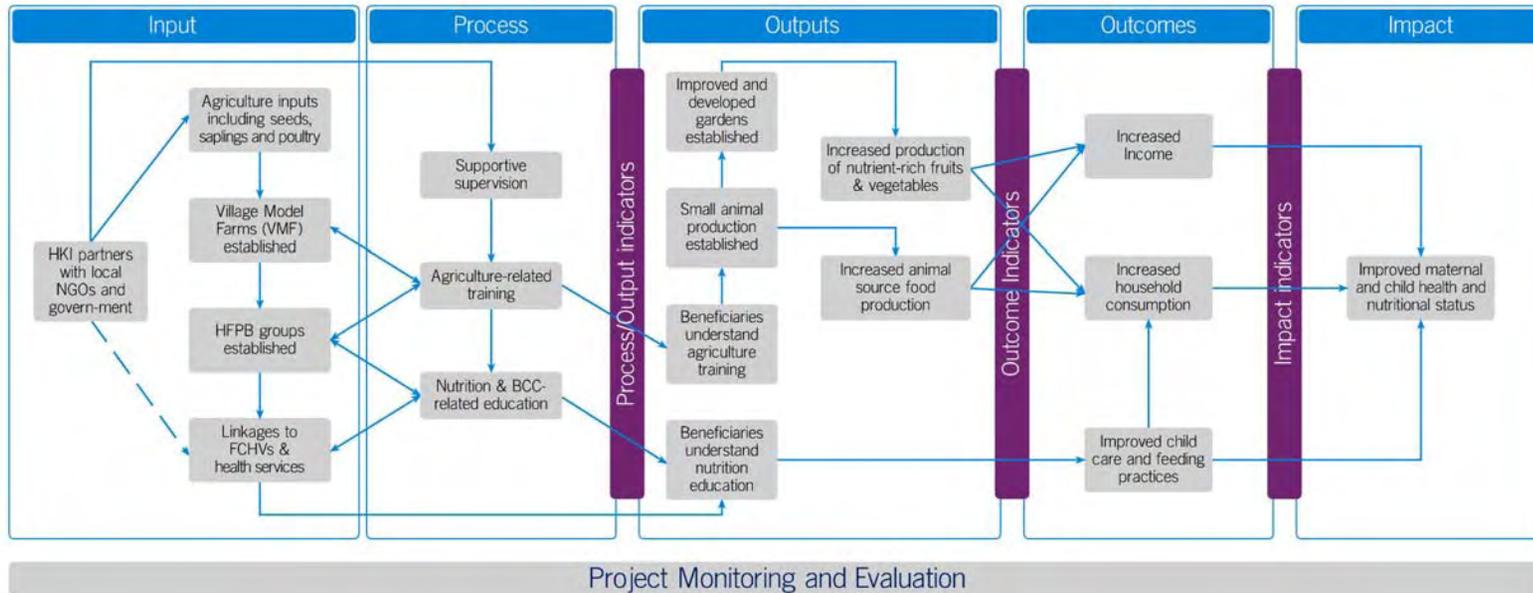
The M&E Tables (Attachments 2a and 2b) describe key program indicators, program targets, data sources and measurement methods to be used in the program districts. As both districts will use the same indicators but have different targets they will use separate tables. Data will be compared across tables, particularly the magnitude of changes in the two districts. The tables will serve as important planning, management and learning instruments to assess the projects implementation and impact. In the Kailali district the table will serve as a district-wide monitoring tool. In the Baitadi district, a cluster-randomized design will be implemented to assess the impact of combined food security and nutrition education interventions on the nutritional status of children 0 to 24 months and their mothers. (Details are included in Attachment 8, Operations Research/Evaluation Plan). HKI has decided to simplify the operations research strategy and to eliminate the sub-study that had been proposed to assess the added value of Sprinkles micronutrient powders in reducing levels of anemia among children 6-24 months beyond the food-based intervention (HFP+ENA+Sprinkles vs. ENA+HFP).

As illustrated in the Program Pathways framework on the following page, the project will track indicators at all levels: inputs, processes, outputs, outcomes (nutrition behaviors) and impact. In addition, a set of indicators to track sustainability and capacity development in the projects' local NGO partners will also be adapted using the Child Survival Sustainability Assessment framework.

AAMA M& E activities will have four major components:

# AAMA PROGRAM PATHWAYS FRAMEWORK

HKI, NTAG, NNSWA, DHO, DADO, DOLS



- **Evidence-based programming:** AAMA activities will be shaped by thorough assessments of the target groups' health and nutrition behaviors and agricultural practices. Tools for this component will include **baseline/end line household surveys, interviews and surveys to explore FCHV motivational factors, and formative research** into nutrition knowledge, attitudes, and factors that may facilitate and constrain behavior change.
- **Community-based process monitoring:** AAMA will use a combination of quantitative and qualitative methods such as **Lot Quality Assurance Sampling (LQAS), structured observations and mini-surveys and GIS mapping** to measure the extent to which project implementation is meeting expectations, and use the findings to adjust or revise the implementation strategy (Attachment 2.c. Process monitoring plan). We will also conduct on-going assessments of the strength of the linkages created between the health and agriculture services at the VDC level in order to ensure synergies are building between these two sectors. The project will engage local NGO partners, VMF owners, FCHVs and HFPB groups in the collection and use of data to track program implementation, including progress in the delivery of program inputs, activities (processes) and the achievement of outputs. Findings will regularly be shared with VMFs, FCHVs, and HFPBs during their monthly meetings, where gaps and solutions will be identified and follow-up actions taken.

At the VDC level, the VMF owner will maintain a **VMF register** where s/he will record information on technical and input support provided to HFPBs and other community members, numbers of varieties of vegetables, seeds and seedlings, amounts produced and distributed or marketed (the VMF is the locus of community production), income earned, and nutrition and health activities conducted at the VMF site. At least one lead household in each HFPB group (depending on literacy levels in participating households) will also maintain a simple register of homestead production variety and quantity.

LQAS will be used to collect information at the household level on selected knowledge and practice-related indicators (household garden production; consumption of HFP products especially by children 6-24 months). Each district will be divided into 6-8 supervision areas (lots). Data will be collected, compiled and analyzed by local NGO field staff every 4-6 months.

- **Capacity building:** A central element of the M&E system will be strengthening the capacity of the local NGO partners and key community stakeholders (VMF owners, FCHVs, HFPBs) to develop and maintain a simple community-based monitoring system. The project will provide technical support to develop and strengthen local NGOs capacity in management information systems (MIS), including data-entry, analysis and utilization of basic information.
- **Data Utilization and dissemination:** The project will provide substantial support for the use of data at all levels (project, community and government) for management decision making (see Annex 2.d Information Use Map). The local NGO partners will systematically document performance within their districts using project MIS and sharing with their health and agriculture counterparts at the district and ward levels. At the central level, AAMA will organize periodic meetings with partners and stakeholders to disseminate program results and seek new opportunities to refine and adjust program approaches and activities.

## **D. Revisions (from the original application)**

The project will strive to create a district-wide model in Kailali as described in the original proposal, covering all 43 VDCs with three VMFs each (total 129) and with two HFPB groups of 20 households per VMF (total households with project-supported HFP 258 + 129). Total garden beneficiaries with spill-over are still expected to be 92,960. However the project team now recognizes that households that meet the criteria to be VMFs are likely to include only a minority of FCHVs. Thus, while FCHVs will be invited to be HFPBs even if they do not have small children in their households, the primary strategy for providing incentives to FCHVs is now expected to be in-kind contributions from VMFs in exchange for their monthly ENA sessions and collaboration with the VMFs.

In Baitadi our implementation strategy has changed from a district-wide model to a cluster-randomized, repeated cross-sectional impact evaluation. Eight Ilakas (sub-districts) will be randomly allocated to project (intervention) or no project (control); randomization will be at the sub-district level to minimize the potential for spill over of intervention inputs. Thus four of the district's 12 Ilakas will receive the intervention (in this case six of every nine wards for the approximately 20 VDCs will receive VMFs and each VMF will have 40 HFPBs). The total population reached will therefore be smaller (approx. 50,000), but we believe this is warranted by the rigorous probability design that will attempt to demonstrate causal associations between our HFP+ENA model and improved child anthropometry. As described in the Operations Research plan (Annex 8), the evaluation plan will involve sampling 1970 children aged 12-48 months at both baseline and endline (985 children in each of the intervention and control communities) chosen from about 6,000 households in the district. This age group was defined based on the fact that children in this range at endline will have been exposed to the intervention for at least 12 months (sufficient duration to benefit) when they were between 0 and 24 months of age (the critical window). The study will use two cross-sectional surveys, and, to assure comparability, will include children 12-48 months of age at both time points.

Our proposal to 3ie for additional evaluation funds was not approved, but we will proceed with the same impact and process evaluation approach we had hoped to carry out in partnership with the International Food Policy Research Institute (IFPRI). Our process evaluation will be less ambitious but we still plan to use program theory to define the program pathways and components (inputs, processes, outputs and outcomes) that describe how program inputs and processes are expected to lead to the intended outputs and outcomes and thus assess the extent to which the different components are implemented and utilized as intended and how these components contribute to improved child nutritional status (anthropometry and anemia status). We have also decided to remove the Sprinkles sub-study as it would have added complications and burden to an already ambitious project.

## **E. Project Management**

The project Management/Human Resources Table is included as Annex 3. The Project Organigram is included as Annex 4. Agreements with SMJK, NNSWA, NTAG and the Social Welfare Council of Nepal are included as Annex 5.

## **F. Operations Research Plan: Annex 8**