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## Case Study

### Implementing the ENA framework with Homestead Food Production: Experience from Nepal 2008-2012

#### 1. Background

The Action Against Malnutrition through Agriculture (AAMA) project was funded through USAID's Child Survival and Health Grants Program from 2008 -2012. The project targeted three districts in the Far West Region (FWR) of Nepal: Baitadi, Bajura and Kailali. AAMA used an integrated, nutrition-friendly agricultural strategy to reduce malnutrition in women and young children, combining the promotion of the Essential Nutrition Actions (ENA) with Helen Keller International's signature Homestead Food Production (HFP), with goal of increasing food security, dietary diversity and nutritional status through promotion of improved techniques for homestead gardens and poultry production together with nutrition behavior change. HKI and the local NGO partners selected volunteer women to serve as village model farmers (VMFs) and trained them in ENA and HFP. These farmers, in turn, each trained 30 to 40 women with a child under age two, organized into mothers groups, in both areas. The model farms were used as the venue for both agricultural training and discussions of ENA, in particular the importance of using foods and incomes from HFP to improve the diets of family members. Government service providers were also engaged in the training and behavior change communications: agriculture extension workers primarily for HFP and Nepal's Female Community Health Volunteers (FCHVs)<sup>1</sup> for ENA.



#### 2. Nutrition Context

When the project started Nepal's significant progress in reducing child and maternal mortality had not been reflected in improvements in nutritional status. Data from the 2006 NDHS showed that infant mortality had declined by 41 percent over the previous 15-year period to 48 deaths per 1,000 live births, while under-five mortality had fallen by almost half to 61. Maternal mortality had also fallen by almost half, to 281 deaths per 100,000 live births. Rates of undernutrition, however, showed only modest change. In the FWR, the prevalence of anemia (low hemoglobin concentration) among children 6-59 months and among

<sup>1</sup> FCHVs play an important role in contributing to a variety of key public health programs, including family planning, maternal care, child health, vitamin A supplementation/de-worming and immunization coverage. They are the foundation of Nepal's community-based primary health care system and are the key referral link between the health services and communities.

women of reproductive age (15-49) were both at 52 percent. Stunting among children under five (height for age < -2 SD WHO reference) was 53 percent, and wasting (weight for height < -2 SD WHO reference) 16.7 percent. Underweight in women was also high at 21.7%. Project baseline data on young child feeding practices indicated that the proportion of children 6-23 months fed  $\geq 4$  food groups in the previous 24 hours was only 37.5% in Bajura and 20.8% in Kailali; in Baitadi the proportion was 42% among children 12-23 months of age<sup>2</sup>.



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### 3. ENA Strategy

Both quantitative and qualitative research methods were used to design a context-specific behavior change strategy to improve child nutrition. Baseline surveys explored nutrition knowledge, attitudes and practices, and in-depth interviews explored beliefs influencing practices in richer detail. This research revealed that significant proportions of caretakers believed mothers could not produce enough milk to nourish their infants, and that children 6-12 months could not digest animal source foods. Addressing such key misunderstandings formed the core of the behavior change strategy. The importance of egg consumption was given special attention.

The project aimed to build on Nepal's strong FCHV network. ENA training began with master trainers, including the District Nutrition Focal Person and selected health facility staff. These master trainers then held a series of trainings to reach all the FCHVs in each target area, giving strong emphasis to teaching skills for negotiation for behavior change. Initial training for FCHVs was four days, with one-day refresher training a year later. Next, with the support of the master trainers, the FCHVs provided two days of training to mothers' groups covering key messages and negotiation methods. This abbreviated training was reinforced by monthly meetings led by the FCHV at the VMF, each focusing on specific topics and allowing for more in-depth discussion of the ideal practices. While the monthly meetings were intended primarily to bolster the knowledge and skills of the direct beneficiaries, other mothers in the community were invited to attend and learn. In addition, beneficiary mothers were expected to support the work of the FCHVs by sharing with their neighbors their new knowledge and skills.

### 4. Impact

An impact evaluation in Baitadi found significant improvements in maternal knowledge as well as in almost all infant and young child feeding practices in intervention compared to control communities (in the sub-sample 12-23 months of age). In addition, anemia at end line was significantly lower among both children and their mothers, and underweight was lower in women in intervention compared to control. No significant change was detected in any child anthropometric measures, however. In Kailali and Bajura improvements in the proportion of children receiving  $\geq 4$  food groups during the previous day also increased markedly, to 69 and 78.3 percent, respectively; other practices also showed large improvements. Food production also improved in intervention areas due to HFP, which may have contributed to dietary change.

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<sup>2</sup> The impact evaluation was designed to assess children 12-48 months of age.