

Helen Keller International's Enhanced Homestead Food Production Model Contributes to Improved Food Security and Livelihoods in Cambodia

The recent food and economic crisis has had a significant impact on household food security among poor households in Cambodia, and is likely to have devastating consequences on the nutritional status of women and children. In order to mitigate the situation, Helen Keller International (HKI) is operating Enhanced Homestead Food Production (E-HFP) in two of Cambodia's most food insecure provinces, Pursat and Prey Veng. The project aims to improve diverse food production, household food security, nutritional practices, and livelihoods among 6,300 vulnerable households across six districts in these two provinces.

HKI's E-HFP program has supported more than 40,000 households, representing approximately 200,000 beneficiaries in 12 provinces throughout Cambodia¹. E-HFP operates with the intended goals of alleviating nutrient deficiencies among food insecure communities by increasing availability and consumption of fruits, vegetables and poultry products rich in micronutrients through homestead production activities, as well as promoting income-generation through the sale of surplus products. E-HFP requires a sustainable village-level system to produce and deliver agricultural inputs in order to increase agricultural production, the consumption of nutritious foods, income and livelihood among vulnerable households. Evaluation of HKI's E-HFP program in Cambodia has shown that household food production combined with nutrition education has a positive impact on food security, income-generation, nutritional status, and health amongst the rural poor, especially women and children².

As HKI staff approach a compound during a routine field visit for the E-HFP project, a woman steps out from behind a trellis of long beans, her face stretching wide with a smile. Behind her a farm is



flourishing, with lush rows of mustard greens, morning glory, amaranth, eggplant and climbing vines of cucumber, and flocks of chickens and ducks making their way to and from a coop. This is the owner of one of 150 Village Model Farms (VMFs) in Pursat province, Cambodia, and a participant in E-HFP. She greets Thida, an HKI program coordinator who pays a visit to all the program farms each month, as a good friend. Thida has a background in both agronomy and management, and over the course of one and a half years of field visits she has built a strong rapport with

each farmer. The two pass through raised beds of bunching onions and past the towering vines of bitter

¹ History of Helen Keller International's Work, 2011, Helen Keller International. Cambodia

² Homestead Food Production Model Contributes to Improved Household Food Security, Nutrition and Female Empowerment –Experience from Scaling-Up Programs in Asia, 2010. *Nutrition Bulletin* 8(1): Helen Keller International.

gourd, discussing how crops are coming along. Thida gives suggestions for increasing production and planning ahead for the next season and the VMF owner explains her plans for the next planting. In another section, she shows all the seedlings and saplings she has grown for distribution among the household farmers under the VMF in her community.

As the owner of a VMF, she serves as a source of agricultural knowledge and support for 20 women farmers in her village who also participate in E-HFP. The VMF is a place for practical training on agriculture production and nutrition education for all beneficiaries. If someone's morning glory is not growing as expected or insects are eating their sweet potato vines, they come to her for advice on how to turn things around. Over the last one and a half years, she has demonstrated and produced seeds, seedlings and saplings of rice, vegetables, and fruits as well as raised small livestock, such as chickens and ducks, for egg production and chick distribution to target households. She also talks with the other farmers, most of whom are mothers of small children, about the nutrition of these crops and the benefit of including them in daily meals. This is vital in Cambodia, where 39.5% of children under-five years are stunted (having a low height for their age) due to chronic inadequate nutrition³. In addition to



contributing to reduced risk for poor physical and mental development, increasing consumption of micronutrient-rich foods among children can also reduce risk for morbidity and mortality. Research has shown that increases of micronutrients, such as vitamin A, can have a dramatic impact on improving child survival.⁴

After visiting a VMF, one is left feeling overwhelmingly impressed by the food production, the tangible pride this farmer takes in her work, and her commitment to supporting others in the village. Moving on to visit several household farmers and VMFs in other villages, a pattern begins to emerge – bountiful, successful garden plots and farmers beaming with pride. But another kind of success of these farms is relayed from the farmers themselves. Discussions with female farmers participating in E-HFP revealed that in addition to increases in food production, the past two years have also marked changes in their household's financial status and well being. As one mother explained, *"Now, we get all our vegetables from this garden so we don't have to buy from the market. Whatever is not eaten, we can also sell at the*

market, and then spend this money on meat and school fees for the children." When women were asked if they also spent some of the money on healthcare for the children, almost all said no. They explained that since they began feeding their children more fruits, vegetables, and eggs they had actually been sick less often, and so, *"No, there is no need to spend this extra income on healthcare."*

Beyond increases in production of fruits, vegetables and poultry products, income generation has also improved since project implementation; with less money spent at the market and more money coming in

³ Cambodia Anthropometry Survey, 2008, Ministry of Planning. Cambodia

⁴ Sommer, A et al., Impact of vitamin A supplementation on childhood mortality: A randomized controlled community trial, *The Lancet*, 1986, (1): 1169-1173.

through sales, a family can use this additional income to bolster their diet and invest in the future. Routine monitoring of E-HFP in Pursat has shown a substantial increase in income generated from homestead food production; households reported a median income of USD \$15 during the first round of monitoring, which increased to USD \$25 one year later during the last round of monitoring. End line data will be used to quantify benefits related to income-generation, and to better understand how E-HFP affects consumption of micronutrient-rich foods and the program impact on maternal and child health and nutrition among these households.

Another change encouraged by the E-HFP program is women's empowerment; though perhaps not as visible as thriving gardens, gender equity is also extremely influential to household well-being. E-HFP brings together up to 20 female farmers in each village, providing each with training, technical assistance and nutrition education within the platform of a women's group. It is believed that these women's groups not only increase knowledge and skills for homestead food production, but also improve social support, decision-making power, agency and control of financial resources among participating women. Research has indicated a positive association between women's agency and health and nutrition outcomes for women and children^{5 6 7}. Operations research is currently underway to better understand changes in women's empowerment within the E-HFP program, and how these changes in gender relations can improve maternal and child health and nutrition outcomes in Cambodia.

HKI's involvement with E-HFP in Pursat will come to an end in October, 2011; staff will hold final meetings with the farmers and its partner NGO, but this in no way means homestead food production will end. As of August 2011, farmers were already preparing beds for their next planting, planning their next harvest, and collecting and saving seeds for the next season. When asked if they would continue their farms after October, all responses were the same and the answer was evident in the success of these farms, the smiles and energy of the kids, and the stories of how lives had changed over the last two years, "Yes, of course we will continue."



⁵ Merchant SM, and Udipi SA. 1997. Positive and negative deviance in growth of urban slum children in Bombay. *Food and Nutrition Bulletin* 18(4): 323-36.

⁶ Sethuraman K, Lansdown R, and Sullivan K. 2006. Women's empowerment and domestic violence: The role of sociocultural determinants in maternal and child undernutrition in tribal and rural communities in South India. *Food and Nutrition Bulletin* 27(2): 128-143.

⁷ Doan RM, and Bisharat L. 1990. Female autonomy and children nutritional status: The extended family residential unit in Amman, Jordan. *Social Science & Medicine* 31(7): 783-789.