FINAL TECHNICAL REPORT / RAPPORT TECHNIQUE FINAL
ANNEX 15B - GLOBAL AQUACULTURE WORKSHOP
POSTER BY SOK HOING LY

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IDRC Grant / Subvention du CRDI: 107982-001-Scale Up of Homestead Food Production for Improved Nutrition in Cambodia (CIFSRF Phase 2)
Enhanced Homestead Food Production model, including household pond aquaculture, contributes to improved production, food consumption and food security in Cambodia

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Background
Two-thirds of the rural Cambodian population face seasonal food shortages each year and one in three Cambodians are food-deprived. Cambodia annually imports approximately 100,000 tons of fresh vegetables worth roughly US$200 million from Vietnam, Laos and Thailand for consumption. The Enhanced Homestead Food Production (EHFP) model provides farmers with the means to overcome these issues.

Objective
To explore the extent to which EHFP program improved food production, food consumption, food security, and how the income was used.

Methods
The investigation used a three-arm control trial of 90 clusters, consisting of one village model farm and ten female farmers per cluster (n=900), all with children aged 0-5 years of age. Clusters were randomly assigned to one of three groups: (i) EHFP, (ii) EHFP plus Fish, and (iii) Control.

Baseline and endline surveys were conducted to assess the impacts. Self-reported data was collected from farmers on food production, consumption, and income. Difference in differences analysis was used to identify the effect of the two intervention models when compared with the control population.

Results
Production
We saw an increase in the total estimated mass of vegetables and fish produced in both of the intervention groups between baseline and endline. These differences were significant when compared with the control group, and applied to the production of both fish and vegetables. (Figure 1).

Utilization of income earned from EHFP
We found positive and significant changes in the proportion of households in the two intervention groups that reported spending money on food, clothes, medicine and education in the past two months, when compared with controls.

Consumption
At endline, 90% of households from EHFP+fish intervention group cited their own production as the main source of vegetables for household consumption, and only 1% of households in this group purchased vegetables from a market, while 55% of households from the control group purchased vegetables from a market. Fifty-two percent of households from the EHFP+fish intervention group reported consumption of fish harvested from their own ponds while only 1% of control households reported consumption. Seventy-two percent of households in the control group reported they purchased fish from the market.

Table 1: Main source of vegetables for household consumption in the last three days at endline

<table>
<thead>
<tr>
<th>Source of Vegetables</th>
<th>EHFP</th>
<th>EHFP + Fish</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market</td>
<td>5%</td>
<td>1%</td>
<td>55%</td>
</tr>
<tr>
<td>Collected from outside</td>
<td>8.0</td>
<td>4%</td>
<td>23%</td>
</tr>
<tr>
<td>Gift</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 2. Expenditure by category and study group

<table>
<thead>
<tr>
<th>Category</th>
<th>EHFP+Fish</th>
<th>EHFP</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>8.3%</td>
<td>40.7%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Clothes</td>
<td>0.7%</td>
<td>8.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Medicine</td>
<td>2%</td>
<td>17.4%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Education</td>
<td>3%</td>
<td>24.8%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Conclusions
By equipping farmers with inputs and educational resources, technical assistance, and knowledge, they are able to produce vegetables and fish for household consumption thereby improving food security and nutrition.