PROJECT REPORT

SCALING UP SMALL-SCALE FOOD PROCESSING:
A STRATEGY TO PROMOTE FOOD SECURITY AMONG
WOMEN SUBSISTENCE FARMERS IN RURAL VIETNAM

Nguyễn Đỗ Huy/Huỳnh Nam Phương
National Institute of Nutrition
1. Project model
2. Project results
3. Production and marketing
4. Challenges and lessons learned
5. Sustaining the results
PROJECT MODEL
OVERVIEW

- **Management**: Ministry of Health
- **Implementer**: National Institute of Nutrition
- **Duration**: 32 months (Nov 2015 – June 2018)
- **Total budget (Vietnam)**: 746,240 CAD

- **Project sites**: Lào Cai, Lai Châu, Hà giang
**PROJECT OBJECTIVES**

**General Objectives:**
Contribute to the reduction in levels of food insecurity and chronic malnutrition in three provinces of Northern Vietnam

**Specific Objectives:**
• *Scaling up:* Increased capacity of the NIN supply chain to address barriers to food security for targeted populations, particularly women and children, in the three selected provinces of Northern Vietnam.

• *Testing models and approaches:* Quantified effectiveness of the proposed scaling-up model, its delivery mechanisms and approaches, through measured indicators of food security in the areas of intervention.

• *Informing decision-making:* Enhanced integration of food security analysis into public policy and programming at the National Institute of Nutrition and other government institutions in Vietnam.

• *Capacity building:* Strengthened capacity of Vietnamese entities in technical areas of food security programming to secure the sustainability of project models and results.
EXPECTED OUTPUT

• Improved earned income (and purchasing power), income stability as well as a diversification of crop profiles of the targeted women small-scale farmers
• Improved knowledge of agro-ecological practices among small-scale farmers
• Established and reliable market for smallholder producers’ crops accompanied by strengthened standards of post-harvest handling (lower losses)
• Increased availability and use of locally appropriate and affordable fortified complementary foods for children in targeted communities
• Lower prevalence of underweight, stunting and wasting among children in these communities
EXPECTED OUTPUT

• Improved indicators of food security in the regions of the project (such as lower prevalence of severe food insecurity among women subsistence farmers’ households)
• Improved knowledge of basic nutrition and food safety among women in the project regions
• Improved weaning and feeding habits
• Entrenched technical capacity of key Vietnamese leadership on food security programming
• Established community-level capacity to initiate and sustain food security programming
• Establishment of a model for scaling up production and use of NIN’s foods in other provinces of Vietnam
• Dissemination of research results through local workshops, seminars and conferences; publication in scholarly journals; and production of policy briefs
Beneficiaries

Direct beneficiaries
• Children under 5 and subsistence female small-scale farmers in 9 project communes
• Researchers of NIN, Universities, Women’s Union, Farmer’s Association

Indirect beneficiaries
• Farmers of project communes
• Workers at Small-scale Food Processing Facilities
• Population in 3 project provinces.
Project model
Cooperation and partners

- GAC/IDRC
- Ryerson University
- Vietnam Women’s Union
- Hanoi Medical University
- Thuy Dung Company, Lao cai
- Provincial People’s Committee, Dept. of Agriculture, Education, Health, Reproductive health centre of 3 provinces
- District Health Centre of Bát Xát, Tam Động, Vị Xuyên
- Communal People’s Committee, CHS, Kindergartens, Women’s union, Farmer Association of 9 communes
Implementing structure

MOH

PMU
(NIN, MCH - MOH)

03 project provinces(Lào Cai, Lai Châu, Hà Giang) (People’s Committee, DOH, RHC, District Health Center)

IDRC (Canada)

Ryerson University (Canada)

Management

Reporting

Technical support

Data reporting
Components and activities

• Component 1: Establishing and operating SSFP facilities
• Component 2: Testing model to improve food security and nutrition
• Component 3: Capacity building and policy advocacy
PROJECT RESULTS
Beneficiaries

- Children under 2: 1,698
- Children in 10 kindergartens: 2,550
- Subsistent female farmers
- Workers in EcoSun SSFP
- Member of Collective Farm
- Students enrolled in e-learning course on Gender at Ryerson
- 2 Masters, 1 PhD candidate, 2 interns
Component 1: Establishing and operating SSFP facilities

- Orientation workshop
- Development of project strategies: research, intervention, gender, M&E
- Find and select partners
- Develop and test products
- Refurbish food processing facilities and equip
- Technology transfer and standardize
- Operation
Orientation workshop April 2016
Finding private partner

Thuy Dung company – Lao cai
Develop and Test project products

- Instant Porridge fortified with Fe and Zn
- Vegetable Powder fortified with micronutrients
- Protein/Fat sachet
Develop project identity
Facility refurbishment
Equipment
Technology transfer and standardise
Component 2: Testing model to improve food security and nutrition

- Research on interventions
- Develop and operate Little Sun counseling centers
- Supply porridge meals for kindergarten children
- Promote and build capacity for good agriculture practices at household level.
- Purchase agriculture produce
- Social marketing of nutrition products for children
- M&E
- Share and disseminate results.
Scientific research

• Baseline
• Follow-up
• Qualitative research on gender and market
Scientific research
Little Sun Counselling services

- Capacity assessment
- Equipment
- Communication materials
- Capacity building
- Certification
- Operation and report
- Supportive supervision
Little Sun Counselling services
Little Sun Counselling services
<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Ha Giang</th>
<th>Lai Chau</th>
<th>Lao Cai</th>
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</thead>
<tbody>
<tr>
<td><strong>Number of facilities</strong></td>
<td>13</td>
<td>4</td>
<td>5</td>
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<tr>
<td><strong>Total of person attended any counseling or events:</strong></td>
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<td></td>
<td>18105</td>
<td>11044</td>
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<td>3396</td>
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<tr>
<td><strong>No. of one-on-one counseling contacts</strong></td>
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<tr>
<td>Pregnant women (3rd trimester)</td>
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<td>6385</td>
<td>2239</td>
<td>1526</td>
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<td>Mothers in delivery</td>
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<td>1043</td>
<td>451</td>
<td>84</td>
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<td>Mothers with children &lt; 6 months</td>
<td>386</td>
<td>199</td>
<td>159</td>
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<tr>
<td>Mothers with children 6-23 months</td>
<td>2721</td>
<td>1570</td>
<td>560</td>
<td>591</td>
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<td></td>
<td>6301</td>
<td>4332</td>
<td>1103</td>
<td>866</td>
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<td><strong>No. of people attended events</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3667</td>
<td>2448</td>
<td>691</td>
<td>528</td>
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<tr>
<td><strong>No. of people attended group counseling</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4288</td>
<td>2211</td>
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<td>1342</td>
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<tr>
<td><strong>Total number of sessions (counseling or events):</strong></td>
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<td></td>
<td>10802</td>
<td>6652</td>
<td>2469</td>
<td>1681</td>
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<tr>
<td><strong>No. of group counseling sessions</strong></td>
<td></td>
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<tr>
<td></td>
<td>411</td>
<td>133</td>
<td>157</td>
<td>121</td>
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<tr>
<td><strong>No. of events</strong></td>
<td>241</td>
<td>134</td>
<td>73</td>
<td>34</td>
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Number of one-one-one counseling contact by client's type

- Mothers with children 6-23 months
- Mothers with children < 6 months
- Pregnant women (3rd trimester)
- Mothers in delivery

<table>
<thead>
<tr>
<th>Year</th>
<th>Mothers with children 6-23 months</th>
<th>Mothers with children &lt; 6 months</th>
<th>Pregnant women (3rd trimester)</th>
<th>Mothers in delivery</th>
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<tr>
<td>2017</td>
<td></td>
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<td></td>
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<tr>
<td>2018</td>
<td></td>
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</tbody>
</table>
Number of counseling contact by type of counseling

- Total of person attended any counseling or events
- No of one-on-one counseling contacts
- No of people attended group counseling
- No of people attended events

![Diagram showing the number of counseling contacts over time.](Image)
Porridge meal for kindergartens
Good Agriculture Practices

• Problem identification
• Capacity building for subsistent female farmers
• Provide seeds
• Supervision
• Collect farm produce
Good Agriculture Practices
Good Agriculture Practices
Farm produce: Song kim collective farm
Social marketing of nutrition products

- Feature of the products
- Price
- Place (distribution channel)
- Promotion
Social marketing of nutrition products
Social marketing of nutrition products
Lesson sharing and dissemination

• Domestic workshops
• International workshops/conferences
• Publications
Lesson sharing and dissemination

- 11 presentations in International workshops/conferences
- 02 publications in domestic journals
- Planned 11 publications in international journals


Acceptability of Fortified Complementary Foods in Lao Cai, Vietnam (Presenters: Yvonne Yuen, Do Thi Bao Hoa and Matthew Brown) on May 29, 2018 at the Canadian Institute of Food Science and Technology National Conference.

Integration of Female Small-Scale Farmers into Agriculture Value Chains: Scaling-up Small-scale Food Processing (SSFP) for Fortified Complementary Food. IUNS 21st International Congress of Nutrition: From Science to Nutrition Security, Ryerson University, Buenos Aires, Argentina, October 15 to 20, 2017. (Presenters: Fiona Yeudall and Huynh Nam Phuong)


Food Secure Canada Assembly, Toronto, October 13-16, 2016: presentation of the project as part of the session Is Canada back? Aid and Global Food Security (presented by Cecilia Rocha).

Integrating Gender into the Vietnam Project—initial concept (Presenters: Moraes, A. and Dao, T.V.P.) at the Gender in Research Training Workshop, 3-5 May 2016, Nairobi, Kenya.

Negotiating Gender in Food Security – initial concept (Presenters: Moraes, A. and Rocha, C) at the International Rural Sociology Association (IRSA) Congress, Sustainable and Just Rural Transitions: Connections and Complexities, August 10-14, 2016, Toronto, Canada.
Component 3: Capacity building and policy advocacy

- Online training on Gender and Food security
- Training workshop on integration of gender in nutrition
- PhD, Masters, interns
- Policy advocacy
Capacity Building
Policy advocacy

• Review of nutrition policy for Ethnic minority children
• Review of nutrition intervention model for Ethnic minority children
• National Plan of Action for Nutrition to 2020
• Prime Minister’s Directive on Enhancement of Nutrition
• Proposed model for Food security improvement in Zero Hunger Program
INITIAL RESULTS
OF FOLLOW-UP SURVEY
### Sampling

<table>
<thead>
<tr>
<th>Age group</th>
<th>Lai Châu</th>
<th>Lào Cai</th>
<th>Hà Giang</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>0-5 mon</td>
<td>57</td>
<td>23.4</td>
<td>77</td>
<td>22.8</td>
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<tr>
<td>6-11 mon</td>
<td>70</td>
<td>28.7</td>
<td>97</td>
<td>28.7</td>
</tr>
<tr>
<td>12-17 mon</td>
<td>65</td>
<td>26.6</td>
<td>84</td>
<td>24.9</td>
</tr>
<tr>
<td>18-23 mon</td>
<td>52</td>
<td>21.3</td>
<td>80</td>
<td>23.7</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
<td>338</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Ethnic minority: 87.2% (Lai châu: 96.9%; Lào cai: 78.0%; Hà giang: 87.4%)
Malnutrition in children under 2

- Weight/age
  - Severe malnutrition: 2.3
  - Moderate malnutrition: 11.6
  - Overweight: 0.7

- Height/age
  - Severe malnutrition: 8.1
  - Moderate malnutrition: 20.8

- Weight/height
  - Severe malnutrition: 0.7
  - Moderate malnutrition: 2.7
  - Overweight: 2.7
Child malnutrition by province

- Lai châu: Underweight 15.9, Stunting 28, Wasting 3.2
- Lào cai: Underweight 13, Stunting 27.8, Wasting 3.4
- Hà giang: Underweight 15.3, Stunting 28.7, Wasting 3.1
Malnutrition rates before and after

Reduction of 3.3%
Maternal nutrition status

- Lai Chau: 17.5%
- Lao Cai: 7.8%
- Ha Giang: 17.3%
- Total: 13.8%
- Baseline: 17.3%

Categories:
- <18.5
- 18.5-22.9
- ≥ 23
Child anemia status in cohort group

% Anemic
- Before: 61.3%
- After: 16.1%

Mean Hb
- Before: 106.1 g/L
- After: 121.2 g/L

Legend:
- Red: Before
- Green: After
Malnutrition in kindergarten children (before and after)

- **Underweight**
  - Before: 23.7%
  - After: 20.6%

- **Stunting**
  - Before: 36.7%
  - After: 24.3%

- **Wasting**
  - Before: 7%
  - After: 6.4%
Z-score in kindergarten children (before and after)

WAZ: -1.25 to -1.18
HAZ: -1.42 to -1.24
WHZ: -0.63 to -0.69

Before
After
Breastfeeding indicators

- Ever BF: Baseline 98.7, Follow-up 98.7
- Early initiation: Baseline 52.5, Follow-up 52.5
- Continue BF to 1 year: Baseline 87.2, Follow-up 87.2
- Continue BF to 2 year: Baseline 14.8, Follow-up 14.8
- EBF: Baseline 40.8, Follow-up 40.8
Complementary feeding indicators

- Min meal diversity: Baseline 47.9, Follow-up 100
- Min meal frequency: Baseline 78.8, Follow-up 100
- Acceptable diet: Baseline 43.1, Follow-up 72.9
- CF timing: Baseline 78.8, Follow-up 100
- CF rich in iron: Baseline 72.9, Follow-up 72.9

Legend: 
- Baseline
- Follow-up
CHALLENGES
• Private – Public partnership in nutrition with the project approach is quite new and not easy to be accepted
• Coordination and support at sub-national levels are weak
• Delayed progress due to unexpected issues
• Marketing yet to reach large scale expected, especially by retailers in communes.
• Difficult-to-reach areas: geography, ethnic minority, poverty, poor access.
• Impact of climate change
• Food and nutrition products of Thuy Dung SSFP not to be diverse in types and target populations.
• Limited area, time and number of beneficiaries
• Safe food supply in food chain is new and not yet attached.
LESSONS LEARNED
• Public – Private partnership has initial achievements, Private sector involvement is to ensure project sustainability.

• Multi-sectoral cooperation in nutrition intervention: agriculture – food production – marketing – health - education

• Social marketing vs. traditional marketing

• Project site selection in line with development and priority standards of Vietnam and international.
PROJECT SUSTAINABILITY
1. To sustain nutrition communication and product promotion in the sites:

- NIN to maintain Little Sun counseling services thought its routine network.
- Support of Health, education and local government in communication and for Thuy Dung Company on prioritized mechanism and policy.
- Thuy Dung to actively involve in product marketing and communication.
2. Support Thuy Dung to sustain and develop:

- Support and cooperation of NIN: 10-year contract
- Lao cai province to have supportive policies: tax, product used for other nutrition programs
- Ryerson University and Donors to continue support.
2. Support Thuy Dung to sustain and develop:

- To develop diversified products to meet different needs: school nutrition, dietetics, nutrition for elderly
- To engage Thuy Dung as partner in future cooperation
3. Maintain Thuy Dung’s commitment

- Lao cai People’s Committee to supervise Thuy Dung company to abide by the 10 year contract with NIN
- Active involvement in product marketing
- Continue to contract with Song Kim farm for purchasing agriculture produce
- Maintain the equipment of food production in a safe and efficient manner
- Maintain to use labor from ethnic group for the SSFP with well paid wages.
4. Scaling up the model in Vietnam and in the region:

- Model evaluation and recommendations to scale up, thus integrating health, agriculture, education, business in nutrition interventions.
- Ryerson University and NIN to maintain cooperation and exchange in training and research in nutrition.
- Donors, Ryerson University and NIN to explore the opportunity for Phase 2 targeting vulnerable populations in the Central and South of Vietnam.
THANK YOU
	#treemdan
tocthieuso
	ecosun

#chaongon