Measuring Impact of Intervention on Vegetable Seed Minipacks

Shovan Chakraborty
Monitoring and Results Measurement Manager
Katalyst, Swisscontact
Table of Content

- Project History
- Project Approach
- Evolution of Monitoring and Results Measurement
- Positioning of MRM
- Intervention on Vegetable Seed Minipacks
  - Result Chain on Minipacks
  - Early efforts for Impact Assessment
  - Process of Iterative Measurement
  - Achievement of Minipacks
  - Major Learning from Evaluation
## Project History

<table>
<thead>
<tr>
<th></th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Donors</strong></td>
<td></td>
<td>DFID</td>
<td>SDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Danida</td>
</tr>
<tr>
<td></td>
<td>SIDA</td>
<td>CIDA</td>
<td>The Netherlands</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Oct’02 – Mar’08</td>
<td>Mar’08 – Mar’13</td>
<td>Mar’13 – Mar’17</td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>CHF 26 million</td>
<td>CHF 51 million</td>
<td>CHF 32 million</td>
</tr>
<tr>
<td><strong>Implementers</strong></td>
<td></td>
<td>Swisscontact, GIZ</td>
<td></td>
</tr>
</tbody>
</table>
# General Approach of Project

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Developing markets for transacted and embedded, public BDS (2002)</td>
<td>• Market development approach</td>
<td>• PPM for 1 year</td>
</tr>
<tr>
<td>• Service, industrial and rural sectors (2003)</td>
<td>• Large scale and sustainable systemic changes in targeted industrial and rural sectors</td>
<td>• Focus on high-value agriculture sub-sectors</td>
</tr>
<tr>
<td>• Pro-poor market development (2004-5)</td>
<td>• MRM improves and proves impact</td>
<td>• Deepen and widen pro-poor impact</td>
</tr>
<tr>
<td>• MRM develops</td>
<td></td>
<td>• Capitalisation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• MRM measures systemic changes</td>
</tr>
<tr>
<td>Innovating, testing and proving the methodology</td>
<td>Reaching greater scale in sectors</td>
<td>Consolidating and anchoring in the Bangladeshi context</td>
</tr>
</tbody>
</table>
Achievements in Phase 2

2.3 Million Beneficiaries

Income impact of ~USD 290 million
Targets in Phase 3

1.43 Million Beneficiaries

Income impact of ~USD 260 million
Project Approach

Market for Poor (M4P)

Interventions

- Poor Farmers
- Value Chain Intermediaries

Companies
Evolution of Monitoring and Results Measurement (MRM)

- **2003**: No clearly defined SYSTEM
- **2004**: Focused on ACTIVITIES & OUTPUTs... Thoughts on RESULTs CHAINs
- **2005**: Trial & error with RESULTs CHAINs
- **2006**: Draft of 1st MANUAL
- **2007**: Discussion on STANDARD starts; 1st MANUAL
- **2008**: Centralized TEAM; MOCK AUDIT
- **2009**: Intensive discussions on THEORY & PRACTICALITY
- **2010**: Refined LOGFRAME; New MANUAL; 2nd MOCK AUDIT
- **2011**: DCED audit
- **2012**: Strong ATTRIBUTION
- **2013**: DCED audit; REVIEW of processes and tools
Positioning of MRM

Steering

Proving and Improving by ensuring the quality of information
Positioning of MRM

Sector selection and strategy development → Intervention management → Results measurement and analysis → Reporting

Strongly mainstreamed among project staff
Intervention on Vegetable Seed Minipacks

Context of the Vegetable Seed Market in Bangladesh

S E E D M A R K E T

Quality Seeds

Farmers

Farmers
## Intervention on Vegetable Seed Minipacks

**Identified Major Constraint**

<table>
<thead>
<tr>
<th>REGULAR PACK</th>
<th>ADOULTRE PACK</th>
<th>ADULTRO PACK</th>
<th>Seeds</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><img src="image5.png" alt="Image" /></th>
<th><img src="image6.png" alt="Image" /></th>
<th>Land size</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><img src="image7.png" alt="Image" /></th>
<th><img src="image8.png" alt="Image" /></th>
<th><img src="image9.png" alt="Image" /></th>
<th><img src="image10.png" alt="Image" /></th>
</tr>
</thead>
</table>

- Regular Pack
- Adultre Pack
- Adultro Pack
- Seeds
- Land size
Intervention on Vegetable Seed Minipacks

• Target: to introduce Minipacks priced USD 0.12-0.50
• Partner Seed Companies
  – Lalteer Seed
  – AR Malik
<table>
<thead>
<tr>
<th>GOAL</th>
<th>Additional income</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPOSE</td>
<td>Small, marginal, and homestead farmers have increased yields due to use of good quality seed</td>
</tr>
<tr>
<td>OUTCOME</td>
<td>Farmers increase use of quality seeds</td>
</tr>
<tr>
<td>OUTPUT</td>
<td>Farmers have increased access to quality vegetable seed</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Channel members are making quality seed available to last-mile farmers through mini packets</td>
</tr>
<tr>
<td>RESULTS</td>
<td>Companies promote and distribute quality vegetable seeds to last-mile farmers through networks of knowledgeable MSVs</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>Facilitated 2 seed companies to assess market, develop strategic plan &amp; packaging for promoting vegetable seeds in mini packs</td>
</tr>
</tbody>
</table>
Intervention on Vegetable Seed Minipacks
Early Efforts for Impact Assessment

*Sales Target for First Season:* 100,000 minipacks

*Sales Before End of First Season:* > 200,000 minipacks

*Realization about Scale*

*Post DCED Audit drive to improve attribution*
Intervention on Vegetable Seed Minipacks

Major Challenges During Early efforts for Impact Assessment:

- Farmer tracing
- Sample Bias
- Understanding the distribution channel
- Assessing the number of users
- Getting time from respondents
- Covering the geographic spread
- Varying seasonality across the country
- Recall bias
- Phrasing style in questionnaire
- Defining the attribution strategy
Intervention on Vegetable Seed Minipacks

Process of Iterative Measurement

- User Tracking Survey in Informal Markets
Intervention on Vegetable Seed Minipacks

Process of Iterative Measurement
- User Tracking Survey in Informal Markets
  - Use of company sales data in more than 50 districts (out of 64)
  - ~1,100 samples from 6 divisions (out of 7)
    - Covered good geographic spread
  - Enumerators could get time from respondents
  - Take details of purchase and address of buyer/user farmer
  - Average no. of minipacks bought per user = ~1.8
  - Total no. of users = (no. packs sold) / (packs bought per user)
    - ~285,000 users by end of a year
  - Interviews with mobile seed vendors
    - Gained understanding of the distribution channel
  - Assessed no. of repeat buyers: 25%
  - Better understanding of seasonality across the country
Intervention on Vegetable Seed Minipacks
Process of Iterative Measurement
- User Tracking Survey in Informal Markets
Intervention on Vegetable Seed Minipacks

Process of Iterative Measurement
- ‘Before’ survey of users
  - Representative from major categories
    - Crop, crop value, geographical spread, etc.
  - >300 samples (x 1.5 crops per sample farmer)
  - Covering 13 sub-districts of 5 divisions
  - Defining attribution methods
Process of Iterative Measurement

- ‘Before’ survey of non-user comparison group
  - Representative of needed comparison categories
  - Sample selection from same localities within villages
    - Reducing sample bias
  - >200 samples
  - Covering 13 sub-districts of 5 divisions
Intervention on Vegetable Seed Minipacks

Process of Iterative Measurement
- Reduction of Recall Bias

<table>
<thead>
<tr>
<th>WINTER</th>
<th>SUMMER</th>
<th>WINTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvesting</td>
<td>Sowing</td>
<td>Harvesting</td>
</tr>
<tr>
<td>Before Surveys</td>
<td></td>
<td>After Survey</td>
</tr>
</tbody>
</table>
Process of Iterative Measurement

- ‘After’ survey of users and non-users
  - Going back to the ~500 samples from the before surveys
  - Covering 13 sub-districts of 5 divisions
  - Space to put in additional questions
    - Quantitative towards more qualitative
    - Proving towards more improving
Intervention on Vegetable Seed Minipacks

Process of Iterative Measurement

- Challenges in Data Analysis
  - Multiple crops
  - Multiple type of conversions
  - Data cleaning
Intervention on Vegetable Seed Minipacks

Process of Iterative Measurement

- Results
  - ~70% users were getting benefit (based on DiD)
  - Income impact per individual per season: USD 17
  - Repeat use: 25%

- Second user tracking survey
  - Retest ‘no. of minipacks bought per farmer’
  - Repeat use: 50%
  - Other qualitative aspects in the distribution channel
Intervention on Vegetable Seed Minipacks

Achievements

By 18 months
Available in more than 50 districts (out of 64)
~ 2million Minipacks sold
Used by 660,000
Benefitting 460,000

Beneficiaries below USD 2.50 a day: 88% (based on PPI)
Beneficiaries below USD 1.25 a day: 23% (based on PPI)
Intervention on Vegetable Seed Minipacks
Major Learning from Evaluation

- Iterative studies are effective in designing context-specific methodology
- Triangulation can help
- A combination of techniques and tools can give leverage
- Mainstreaming of MRM among project staff is crucial
- DCED alignment should be continued
Over to You