Using results to redesign & update strategies

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DCED Seminar March 2014
Project Name

Making Markets Work for the Jamuna, Padma and Teesta Chars

m4c
MAKING MARKETS WORK FOR THE CHARS
Content

- Project Background
- Results Measurement Processes
- Analysis and Use of Results in Decision Making
Project Background

**Donor**
Swiss Agency for Development and Cooperation (SDC)

**Duration**
5 years; Dec 2011 to Nov 2016
(Inception of 6 months)

**Budget**
CHF 8 million

**Implementers**
Swisscontact in collaboration with Practical Action

**Line Ministry**
Ministry of Local Government, Rural Development & Co-operatives (LGRD), Government of Bangladesh
About Chars

900+ islands
1Mil+ people

Exposed to climatic shocks
Isolated
Poor access to basic services
High Transaction cost

Weak Markets
Average per capita income < USD 1.25

Agriculture Livestock
~ 50% women (vulnerable to seasonal migration)
M4C Portfolio

transport

financial services

maize
jute
onion
mustard
ground nut
handicrafts
Theory of Change

- Lead firms and service providers adopt commercially viable and sustainable models for the chars.
- Char HHs improve performance of their economic activities.
- Increase in household income from economic activities in targeted sectors.
- Reduced vulnerability and increased well being.

Producers get and use better inputs/services.

Lead firms and service providers adopt commercially viable and sustainable models for the chars.

Producers have improved knowledge/skills.

Producers and market actors have improved linkages and trust.

Lead firms/service providers test business models.

Facilitate linkage between producers and other actors.

Support producers to organize themselves in effective groups.

Partner with lead firms/service providers to design char appropriate business models.
Results till date...

• Net income CHF 1.2 million income for 15,000 char households

• 30-40% increase in household income from selected sectors

• 10,000 women gained improved knowledge on farming practices and linkage to new markets

• 419 char producer groups (30% women) mobilized on the chars and linked with national/local market actors

• Private input companies/ local market actors adopted char suitable business models and are investing to expand further

• Use of char-suitable inputs/cultivation practices reduced losses due to floods, cold wave, etc.
Result Measurement
Processes
MRM Steps

1. Draw Results Chain
2. Define Indicators
3. Establish Baseline
4. Make a projection of impact
5. Measure and Attribute
6. Analyze, Use & Report

11.03.2014
Results Chain

**Impact**
- Increased income
- Additional Jobs
- Other poverty reducing impacts

**Outcomes**
- (Direct) producers increase profit
- (Direct) producers improve performance
- (Direct) producers change their behavior
- (Indirect) Producers increase profit
- (Indirect) Producers improve productivity
- (Indirect) Producers change their behavior

**Outputs**
- Increased interaction between service providers and char producers
- Increased service use by char producers
- Other service providers provide improved services

**Activities**
- Intervention 1
- Intervention 2
- Intervention 3
- Intervention 4

**Outputs**
- Change in service providers’ capacities and Behavior
- Change in service providers’ capacities and Behavior

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MRM Milestones 2012-13

- Sector Strategy Paper: May 2012
- Results Chain Development: Oct 2012
- Early Signs of Impact Assessment: 1st Year impact Aug 2013
- Final Impact Assessment: 2nd Year impact Aug 2014
- Intervention Concept Note: Aug 2012
- Intervention Plan Finalization: Oct 2012
- Draft Intervention Report: Sep 2013
- Final Intervention Report: Sep 2014
Impact Assessment Design

1. Selecting actors to be interviewed
2. Calculate sample size
3. Selecting locations and sampling method
4. Develop questionnaire
5. Data Collection and Analysis
### Sampling (e.g. Chilli sector)

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Type of Sample</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treated Farmer</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>Control Farmer</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Lead Farmer</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Trader client Farmer</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>Input Retailer</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Chilli Trader</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>Female unpaid family labour</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>204</strong></td>
</tr>
</tbody>
</table>

- **Sample size calculation** - [www.raosoft.com/samplesize.html](http://www.raosoft.com/samplesize.html), M4C calculated with 10% margin of error and 90% confidence level
- **All samples from baseline were included**
- **Samples were distributed among the working areas depending on the number of households and project activities implemented**
Measuring Change in Behavior among Char Farmers

We wanted to measure the knowledge level of the farmers on improved cultivation practices and the conversion of that knowledge into practice.
Developing Proxy Questions

Step 1: Revisit “Training Modules/Materials” and list down of broad topics

Step 2: Pick up the important topics that significantly contributes to higher yield / income

Step 3: Select one or two question for each topic to measure knowledge level

Step 4: Formulate the questions into close-ended with correct and incorrect options

Starting “Do you know....”

Step 5: Formulate the same questions for usage/practice level

Starting “Did you apply...”

Step 6: Data collection and analysis
Analysis and Use of Results in Decision Making
# Data Analysis

## Chilli

<table>
<thead>
<tr>
<th>Topic</th>
<th>Specific question (proxy for each topic)</th>
<th>Treatment farmer (60)</th>
<th>Control farmer (32)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>INPUT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Knowledge on quality and application of inputs</strong></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
</tr>
<tr>
<td>Macro fertilizer</td>
<td>Most important time for applying Urea</td>
<td>56</td>
<td>93%</td>
<td>24</td>
</tr>
<tr>
<td>Micronutrient fertilizer</td>
<td>For stopping Chilli flowers from falling off what micronutrient is essential</td>
<td>43</td>
<td>72%</td>
<td>14</td>
</tr>
<tr>
<td>Pesticide</td>
<td>Which time of the day is appropriate for pesticide application?</td>
<td>55</td>
<td>92%</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>To prevent fungal disease, which pesticide is essential</td>
<td>36</td>
<td>60%</td>
<td>7</td>
</tr>
<tr>
<td>Compost</td>
<td>In your opinion, How important is compost for Chilli cultivation?</td>
<td>49</td>
<td>82%</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>80%</td>
<td>59%</td>
<td></td>
</tr>
</tbody>
</table>

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<tr>
<th>Topic</th>
<th>Specific question (proxy for each topic)</th>
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<th>%</th>
<th>Frequency</th>
<th>%</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro fertilizer</td>
<td>How often do you apply tsp</td>
<td>16</td>
<td>27%</td>
<td>11</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>Micronutrient fertilizer</td>
<td>For preventing chili flower to fall what micronutrient do you use</td>
<td>41</td>
<td>68%</td>
<td>10</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do you apply micronutrient</td>
<td>53</td>
<td>88%</td>
<td>29</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Pesticide</td>
<td>When do you apply pesticide for fungal disease</td>
<td>33</td>
<td>55%</td>
<td>2</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Compost</td>
<td>Do you apply compost</td>
<td>29</td>
<td>48%</td>
<td>9</td>
<td>28%</td>
<td></td>
</tr>
<tr>
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<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>57%</td>
<td>38%</td>
<td></td>
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</tr>
</tbody>
</table>
Key Learning (in case of the assessed intervention)

- Information dissemination on balance fertilizer application through char retailers and farmer meetings is effective.

- The idea of using fungicide/pesticide with the concept of ‘preventive rather than curative measures’ should be strengthened more in future intervention activities.

- Promotion of compost/cow dung is required. Reasons behind lack of usage need to be investigated further.
**Attention to Details**

*Focus on which topics need more emphasis*

### Shared the information with project sector teams

AND

### Incorporated in recent interventions

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
<th>Frequency</th>
<th>%</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>93%</td>
<td>24</td>
<td>75%</td>
<td>Green</td>
</tr>
<tr>
<td>43</td>
<td>72%</td>
<td>14</td>
<td>44%</td>
<td>Green</td>
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<tr>
<td>55</td>
<td>92%</td>
<td>26</td>
<td>81%</td>
<td>Green</td>
</tr>
<tr>
<td>36</td>
<td>60%</td>
<td>7</td>
<td>22%</td>
<td>Green</td>
</tr>
<tr>
<td>49</td>
<td>82%</td>
<td>23</td>
<td>72%</td>
<td>Green</td>
</tr>
</tbody>
</table>

**80%**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
<th>Frequency</th>
<th>%</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>27%</td>
<td>11</td>
<td>34%</td>
<td>Red</td>
</tr>
<tr>
<td>41</td>
<td>68%</td>
<td>10</td>
<td>31%</td>
<td>Red</td>
</tr>
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<td>29</td>
<td>91%</td>
<td>Red</td>
</tr>
<tr>
<td>33</td>
<td>55%</td>
<td>2</td>
<td>6%</td>
<td>Green</td>
</tr>
<tr>
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<td>48%</td>
<td>9</td>
<td>28%</td>
<td>Green</td>
</tr>
</tbody>
</table>

**57%**

**Red** = more attention needed  
**Green** = less attention needed
Correcting Assumptions

Conversion % of Knowledge to Practice to Use: 70% and 80%...

We used this to validate our assumptions in the Results Chain

Our initial assumption was 80%!!
Steps to integrate MRM in Project Steering

Monthly team meetings
- Specify MRM activities
- Assign tasks to specific individuals

Six monthly review meetings
- Triangulation
- Review Results Chains
- Update strategies
- Engage sub-contractors

MRM week – twice every year
- Update Results Chains
- Write intervention reports
- Write concept notes
- Complete documentation
Open Questions/Challenges in MRM

Strategic

• Measuring resilience and well-being aspects of households
• Measuring systemic changes on the chars
• Measuring access to employment opportunities

Implementation

• Setting SMART indicators
• Collecting household level data
• Aggregating qualitative information (topics like gender, DRR)
• Capability of local research firms
Thank you