Evolving climatic adaptation through crop insurance -- Dhan Foundation

About the Project

Project Name: Evolving climatic adaptation through crop insurance -- Dhan Foundation
Type of Facility Project: Microinsurance innovation grantee
Country of Operation: India
Region: Asia and the Pacific
Sub Topics: Business viability, Other channels, Financial institutions, Premium collection, Claims, Promotion, Product development, Consumer education, Demand, Agriculture
Type of Risk Carrier: Mutual or community-based
Type of Distribution Channel: Mutuals, community-based organizations

Organizational Overview

DHAN Foundation, an Indian-based professional development organisation founded in 1997, aims at enhancing rural development innovations and scaling up interventions to eradicate poverty in vast areas of the country. It engages in various activities, such as microfinance, water, rainfed agriculture
development, ICT for Development, local governance, coastal conservation and livelihood development. Microinsurance is a cross cutting topic in the Foundation’s work. People Mutuals, a community association, is the insurance arm of Dhan Foundation. It was set up in 2003 with the support of Oxfam Novib and Rabobank Foundation, to facilitate access to microinsurance among the members of self help groups and other peoples’ organizations supported by DHAN Foundation. Its mission is to help safeguard low-income people from risks and vulnerabilities through mutual solutions and collaboration with insurance providers.

**Project Description**

The project is developing various mutual crop insurance products as adaptation measures to climate change issues faced by small farmers. The project is being delivered across eight districts in two states of India involving 15 blocks. The product is designed and implemented by a mutual insurance committee (MIC), which consists of older and wiser farmers from each covered village. The MIC decides on the risks to be insured and the level of retention of risk by the insured farmers. Given tha...

**Beneficiaries**

The project targets small farmers organized by DHAN Foundation who do not have access to insurance mechanisms for adapting to climate change related issues. The *Tankfed Agriculture Development Program* and *Rainfed Farming Development Program* of DHAN Foundation have a reach of over 100,000 small farmers. These farmers, especially rainfed farmers, face various risks to their livelihood. Weather risks are the primary concern as more than 60 to 80 percent of crop yield depends on the adequate quantity and proper distribution of rainfall. In the past decade, farmers have faced many issues arising from climate change, including a decline in annual rainfall, late onset and early withdrawal of monsoon, and a change in dry spell patterns. The consequences of these changes can be dramatic and include frequent crop losses (and associated loss of income), migration and change of vocation. The traditional coping mechanisms such as savings or credit are not sufficient to manage these issues; they also are not available to all. The farmers, however, do not understand insurance well or lack a culture of risk management. Most farmers equate payment of premium to saving and expect something in return. Their landholding is fragmented and their income is low. They do not have access to existing commercial insurance companies' crop insurance products and services which meet their needs.

The pilot will begin in five federations the first year, scaling up to 15 federations in Year 2 to serve a total of 22,000 small farmers.

**Learning Agenda**

- How to insure different crops and determine the probability of individual crop risks, determine loss associated with individual risks, and affordability?
- What factors determine the efficiency and effectiveness of crop insurance programmes? Specifically, how to control adverse selection and moral hazard and maximize member enrolment and retention?
- How to optimize the placement and number of automatic rain gauges, and ensure that the rainfall recorded in the rain gauges is accurate, reliable and representative of field conditions?

**Project Status**

**Key Performance Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>July 2010</th>
<th>April 2011</th>
<th>November 2011</th>
<th>2012 (overall up to Nov)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Federations, Location</td>
<td>5</td>
<td>12</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Number of Crops</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Number of Rain Gauges installed</td>
<td>50</td>
<td>159 (DHAN had 9 available earlier)</td>
<td>159</td>
<td>159</td>
</tr>
<tr>
<td>in first phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Rain Gauges installed</td>
<td>100</td>
<td>159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in second phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of beneficiaries</td>
<td>748</td>
<td>3107</td>
<td>8743</td>
<td>15233</td>
</tr>
<tr>
<td>Area covered (hectares)</td>
<td>529</td>
<td>1007</td>
<td>1804</td>
<td>3663</td>
</tr>
<tr>
<td>Coverage ratio</td>
<td>20%</td>
<td>30%</td>
<td>30% (varies across federations)</td>
<td></td>
</tr>
<tr>
<td>Renewal Ratio</td>
<td>99%</td>
<td>30-100%</td>
<td>Farmers 88% Hectares 79%</td>
<td></td>
</tr>
<tr>
<td>Claims settlement time</td>
<td>30-60 days</td>
<td>30-60 days</td>
<td>Average 45 days. Can vary from 30-90 days as settlement is done when entire portfolio risk period is completed</td>
<td></td>
</tr>
<tr>
<td>Claims ratio</td>
<td>71</td>
<td>113%</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>Expense ratio</td>
<td>50</td>
<td>47%</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

**Project Updates**

As of Nov 2009 Fifty rain gauges were installed in collaboration with Spatika of Bangalore across five locations of Kamuthi, Sayalkudi, Singampunari,
Kottampatti, and Thiruppulani. They were approximately five kilometers apart, depending upon host availability. The gauges were installed with proper cementing and protected from outside interference. The data is received on a GSM signal every 15 minutes at a central data receiving mechanism at DHAN, and consolidated daily. If there is a breakdo... READ MORE [2]

Project Lessons

On insuring crop risks It is critical to work closely with the community in order to understand the risks being faced by them. DHAN has formed farmers' groups and mutual insurance committees that provide regular feedback to the field officers on which crops to insure and the risks and losses associated with them. The close collaboration with the community enabled DHAN to gain a clear understanding of the cropping patterns and the rainfall requirements... READ MORE [2]

On factors determining the efficiency and effectiveness of crop insurance programmes Customer education has an important role to play. DHAN's experience in the first round has shown that due to lack of time, education efforts were insufficient, meaning that farmers did not fully appreciate the association of crop yield loss to the quantum of rainfall, thus leading to low enrollment. Intensive insurance education efforts are required to improve customer's... READ MORE [2]

On working with large insurance company and risk transfer for efficiency and effectiveness of crop insurance programmes Aligning products with others available in the surrounding area improves understanding. The availability of government schemes at different rates was impacting the sales of the products developed by DHAN. From the second season onwards, DHAN started using the Agriculture Insurance Company to carry the risk and help with the development of the product... READ MORE [2]

On ensuring reliability of rain gauges and their effectiveness in increasing trust in product The rainfall data from the rain gauges needs to be monitored regularly and recorded. The proper functioning of the rain gauges needs to be ensured through visits by the federation staff and maintenance visits by staff of the supplier. Regular systems of checks and balances are required, verifying the data of adjacent rain gauges and checking with the dat... READ MORE [2]

On ensuring that the sales team is adequately trained and equipped to sell a new product The doubts of the sales team need to be explored and clarified, and it is important to win them over. DHAN understood that layering an index insurance programme on other activities being carried out by the field staff was a challenge. Repeated clarifications backed by case studies of similar projects helped the sales team understand the concepts and equipped them to expl... READ MORE [2]

On the timing for premium collection Premium collection needs to be aligned to availability and ability to pay. It became apparent to the sales teams that the premium collection period coincided with the time the farmer had to pay for other inputs, like seeds and fertilizers, which involved sizable cash outflows. Farmers were therefore hesitant to also make insurance premium payments. DHAN is exploring if premium payment in instalments could be an alternative... READ MORE [2]

On the viability and sustainability of the programme Effort on selling weather insurance products can be combined with other activities with the communities. Initially, when DHAN was designing and selling the product as well as carrying the risks, the volumes were small. In order to enhance the value from the product and cover greater risks, it tied up with Agriculture Insurance Company and started earning a ?commission? for the business being generated.... READ MORE [2]

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