

Weather Insurance Operations Manual for NGOs and Micro Finance Institutions



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Introduction

This manual is based on Self-Employed Women's Association's (SEWA) provision of weather insurance, specifically rainfall insurance, to rural communities in the state of Gujarat, India. Starting in 2006, in conjunction with ICICI Lombard and IFFCO-Tokio (in 2007), two major insurance companies in India, weather insurance was offered in the districts of Ahmedabad, Patan, and Anand. In coordination with SEWA, the Centre for Microfinance (CMF) and development economists from Harvard University conducted an analysis of the weather insurance project. Black and White (B&W), an Ahmedabad-based survey firm, worked with the Centre for Micro Finance to conduct the research surveys for this project. The funding for the project originates from USAID, the foreign aid/development wing of the US government, CMF, and the Division of Faculty Research and Development at Harvard Business School. Drawing on SEWA's experience, the manual will elucidate the requirements and challenges faced by NGOs in implementing such a project.

The following section describes the advantages and challenges of providing weather insurance to farmers, while Section 3 summarizes the inputs necessary to conduct the project. Sections 4 through 13 will explain each step of carrying out the project. Finally, the appendix provides a proposed timeline for organisations to follow, budget and cost sheets, and auxiliary information.

The purpose of writing this document is to provide non-governmental and other interested actors with guidance and information, positive and cautionary, to enable them to judge whether and how to implement such a project in their own operational environments. This document complements other resources available for organisations interested in developing weather insurance (see references). Finally, it is important to note the kaleidoscope of actors involved in this project, particularly the external research team of the Centre for Micro Finance as well as development economists from Harvard and the University of Pennsylvania.

Weather Insurance

Even as developing nations industrialise and urbanise, the agricultural sector still accounts for two-thirds of the population (Economist 15/12/08). These rural communities are exposed to substantial weather risk which carries with it a host of associated problems. For example, Cole et al (2008a) surveyed farmers in two states of India; 89% of farmers reported that variation in rainfall was the most important risk they faced. A poor monsoon for example —drought or flood—may cause farmers' crops to fail. To deal with such crop failures, rural households may sell productive assets, borrow from moneylenders who charge high rates of interest, or choose to work more hours at the neglect of other pursuits. Additionally, a poor monsoon could make it difficult for agricultural labourers to find work and earn an income. This in turn might decrease local aggregate demand, which harms non-agricultural sectors. Hence, the regional implications from adverse weather conditions can be significant, spiralling incomes downward and devastating entire local economies.

Weather insurance represents a novel approach in formal risk management for farmers. The product has several important advantages compared to most pre-existing crop insurance schemes. Weather insurance does not suffer from the same moral hazard and adverse selection problems. The payout is based not on the quality of the crop but on an exogenous parameter—the amount of rainfall, either above or below a 'normal' level where we would expect the crop to grow. Additionally, the measurement, which is taken from weather stations in close proximity to the farmer, is a low sunk cost that is not borne by the insurance company. This can be compared to the costly exercise in crop insurance where payout eligibility is determined by a crop damage assessment for individual farmers or localized areas. Also, private sector rainfall insurance may be less susceptible to corruption and political meddling than government-run crop insurance programmes. Indeed, weather insurance has been piloted by numerous organisations, such as BASIX in Andhra Pradesh, and received growing attention from academics and policymakers (See Morduch 2004; Hess 2003; Morduch et al. 2005; Vickery 2005).

However, in order for weather insurance to help Indian farmers, they must first understand it. This could be a major obstacle because farmers' experience with financial products, particularly insurance, is often limited. To address this potential pitfall, the research project examined financial literacy, placing as much importance on it as the contract design of the product (see Cole et al 2008c). This document argues that recognizing and proactively dealing with low levels of financial literacy is necessary for the successful implementation of any microinsurance programme; we would expect NGOs which offer weather insurance to incorporate a training programme for farmers to improve financial literacy (this will be discussed below). Additionally, given the nature of weather insurance, the cost of organising an operation that explains the product and engenders client interest is also substantial (see Sections 3 and 7). The hope is to move past the sound theoretical justifications and on to hard evidence that weather insurance benefits farmers. And despite the difficulties and costs involved, weather insurance has a growing following and a significant market potential.

1. Phases, Inputs & Operational Considerations

Given the complexity of weather insurance and limited financial literacy among farmers, as discussed in Section 2, a substantial amount of effort should be made to ensure that farmers understand the product so that they make educated insurance purchases and farm management decisions.

The yearly implementation of the weather insurance product in Gujarat has thus far revolved around four broad phases.

Planning: Roughly six months before the beginning of the major growing season's rains, the project team engaged in product design negotiations as well as the hiring/training of marketing staff.

Marketing and Selling: About two months before the beginning of the growing season, direct marketing and selling begins in the target villages.

Monitoring Rainfall Data: Throughout the actual growing season rains, the collection of rainfall data is monitored.

Data Analysis and Payouts: Finally, after the rains conclude, the rainfall data is analyzed and follow-up visits are made, either to pay out claims or to present data about the normal monsoon (and explain why no payouts would be made).

3.1 Throughout these four phases, the implementing non-governmental organisation must provide continuous administrative, logistical and financial support. From the experiences of the project team in Gujarat, the organisation's "inputs" during the process can be grouped into the following categories:

3.1.1 Leadership: Planning, management, and administration

Given that numerous activities such as marketing, and underwriter negotiations must be carried out simultaneously, the implementing organisation should have efficient administrative capabilities; they must also be a focal coordinating point for actors from both the public and private sectors. Development of communication and coordination tools and inputs to the contract design are particularly important, given the multiple constraints of implementing an index-based weather insurance product. Additionally, non-governmental organisations planning to offer weather insurance can provide invaluable input to product development if they already engage with potential clients. Finally, the organisation must take a long-term view of the project –as success may not come immediately. Since insurance does not pay out every year which may have adverse implications for client relations, it is important for the project leader within the NGO to display commitment, sustained support and be open to tinkering with the product.

3.1.2 Direct Operations

In the planning phase, the organisation will have to train its employees to implement the weather insurance programme. These employees will travel to the targeted villages and carry out tasks that will require specific knowledge of the product, an understanding of the regulations of insurance companies, and the ability to connect with local farmers. The weather insurance products to date have been reasonably complex, so it may take a substantial effort to ensure that the sales team understands the product.

Marketing is imperative to this project due to the aforementioned barriers to weather insurance take-up. While organisation ultimately must market the product through its own channels, there are useful precedents and examples from research institutions and other practitioners (see below). Mostly importantly, the organisation must understand the needs of the farmers; leveraging this knowledge will help to attract households to the project. Following marketing and sales, employees return to the villages to collect payments for the product and later, distribute payouts when applicable. Throughout the entire process, the organisation must consult and engage with households regarding the product. It will also be the duty of employees to consult with households about the product, which will include explaining processes and results. This is of central importance in phases three and four.

3.1.3 External Inputs

Two external inputs are also necessary. First, reliable weather stations must exist for collecting rainfall data. National meteorological systems (e.g., IMD in India) are natural data sources. Second, an institution that is willing to sell (“underwrite”) the rainfall insurance must be identified. Potentially an NGO could sell the insurance itself, depending on local insurance regulations, but that would require the NGO to have significant reserves available to make payouts. The document argues that it is preferable to partner with a financial institution that already offers rainfall insurance. The NGO’s staff may need to search for such a financial institution and then negotiate over the insurance premiums that will be charged, as occurred in this project.

3.2 Staff Requirements and Operational Costs

In order to infuse this document with practicality, especially given the novelty of weather insurance, it’s important to discuss the cost, staffing issues and tradeoffs to meet the aforementioned inputs.

3.2.1 Staff requirements

In accordance with the “four phases” mentioned above, needs for staff vary widely over the course of the agricultural year. In India, needs are highest in the three months immediately before the rains/monsoon begin while needs are minimized for the rest of the year. How to approach this staffing issue depends on the way insurance fits into the various other activities of the NGO. The NGO should consider whether staff can be specially hired and trained for several months just for insurance sales (especially at the time of year that those staff might otherwise be involved in preparing and planting their own farms) or if staff can be shifted between activities to heavily emphasize rainfall insurance for a few months every year.

That said, the organisation should retain several employees including a project director who are able stay actively involved throughout the entire year. This director should coordinate with all the parties involved, manage the training of staff and monitor implementation in the field. The director should have an understanding of the strengths and weaknesses of the organisation and have a healthy working relationship with all parts of the organisation. Given the complex nature of the product, a firm grasp of finance or economics is necessary and a particular understanding of insurance, the theoretical underpinnings and practical experience, would be a strong asset. If the NGO has an insurance department or particular insurance expertise, a person(s) from this group should also be included in the project. Depending on the depth of the organisation’s involvement in the project, a full-time position may be required for the project director.

For the weather insurance marketing/sales team, the organisation must select or train individuals to have a basic understanding of finance and an understanding of the insurance product. Knowledge or experience regarding agricultural issues would also be helpful in dealing with farmers. The director can use his/her expertise to educate the team, if necessary, or hire an expert trainer. This may require extra time to be allocated in the planning phase (phase 1) and should be budgeted for to avoid problems. Depending on the number of villages offered insurance, this position could involve further time commitments.

Finally, having organisational representatives working at the village-level has shown to be very helpful in legitimizing the product to farmers; rather than information coming from a stranger or external actor, the farmers engage with someone who knows their village and its community.

3.2.2 Operational Costs

The costs or financial inputs needed are summarized in the appendices 12.4 and 12.5, with the nominal amounts given in Indian Rupees and converted US dollars (based on Jan 2009 foreign exchange rate which was approximately \$1 = 48 INR). The figures presented are based on the actual costs faced by SEWA in conducting the project during one year of implementation in approximately 50 villages. It details the travel costs and accommodation costs for such an operation, including the marketing team's costs of travel and accommodation in the field. Furthermore, it shows the different costs for the staff members. Obviously, these costs are not meant to predict of the exact figures other organisations would face but rather should be used as a template of the various cost elements that go into a weather insurance project. This cost approximation should be treated with caution because each project depends on different factors for success

Keeping these caveats in mind, there are a number of general budgetary considerations an organisation could take into account. In this type of project, the costs of distribution, marketing of the product, and collection of payments are expensive relative to the actual insurance contract, given the travelling costs and the 'man-power' needed. Furthermore, marketing takes a considerable amount of time because of the complexity of the weather insurance product and because there is only a payout in cases where there are adverse deficits or excesses of rainfall. The importance of marketing should be weighed against the relative costs of developing the product, the extent of the NGOs connection in the districts involved, and the importance of getting high take-up rates of insurance. To tackle these obstacles, the NGO might want to organize focus groups to discuss clients' perceived needs.

To reduce budgetary costs, the following strategies could be considered. Operational costs significantly decrease if village meetings are used instead of visits to each individual household. This reduces the number of marketing team members needed and the time spent in the village. Further, the NGO could combine the sale of weather insurance with the sales of other products such as seeds or fertilizer. Additionally, the NGO might have some unrelated expenses that vary with the quality of the harvest and the introduction of weather insurance might mitigate against the effects of a poor harvest. Finally, the distribution costs are expected to decline over time as farmers become more familiar with insurance and will require less marketing and NGO engagement.

2. Product Design and Coordination with Insurance Providers

Upon its decision to adopt a weather insurance project and to partner with an external institution, the organisation must coordinate with the insurance companies (and if applicable, researchers) about the timeline of project and the insurance contract parameters. The insurance policy is usually created by the insurance company. Hence, to aid the underwriting institution, the NGO should be able to provide information such as:

- The types of crops and their growing periods (length and dates of the growing period);
- Areas where farmers' crops are adversely affected by weather conditions;
- Measurement levels and correct interpretation of agricultural quality
- How best to coordinate with and report to both researchers and insurance companies;

The pricing of rainfall insurance can be complex. There are some resources about pricing, for example, see the experiences of 'Designing weather insurance contracts for farmers' by the International Research Institute for Climate and Society, Columbia University. The contract covering the growing season should specify the minimum amount of rainfall needed to ensure successful growth of a common crop. In a pre-specified period of time (e.g. growing season), if the cumulative rainfall is lower than the minimum amount needed, the policyholder becomes eligible to receive a payment. The payout increases with the size of the rainfall deficit to the threshold amount of rainfall, reaching a maximum payout at a second threshold amount meant to approximate total crop failure. It should be noted that in the study that this manual is based on, there was no abnormal rainfall in three years in the districts that took up weather insurance policies in Gujarat.

Over the three years of this project's implementation, the weather insurance product underwent several iterations and changes. In 2006, ICICI Lombard first provided the insurance product (see appendix). The 2006 contracts divided the growing season into three phases, relating to timing of sowing, podding/flowering, and harvesting of crops. Hence the first two phases supplied coverage against deficit rainfall, and the last phase, when abundant rainfall can be harmful, paid out in the event of excess rainfall. For example, the policy available in Patan, had a premium of Rs. 257 and structured its payout as: No payout in Phase II if rainfall is above the 'strike' of 75mm. For each mm of deficit below 75mm, the policyholder is paid Rs. 5 per mm of deficit. If the total rainfall is below 5mm, the policyholders receive a payment of Rs.500.

In 2007, IFFCO-Tokio offered the insurance product (see appendix). The three-phase approach was replaced by a single-phase product which specified a 'normal' level of rainfall based on historical data, and a payout would occur if measured rainfall was 40% below the 'normal' band. The amount of payout increased as the size of rainfall deficit increased as well. In Anand for example, if rainfall was 70% below the normal average the client would receive 300 Rs. There were three main reasons for switching to this product from that used in 2006. First, the 2006-product premiums were high relative to the incomes of the target population, and the IFFCO-Tokio policy offered lower premiums due to the structure of its product. Second, from an operational standpoint, the NGO had trouble selling the 2006 product, in part due to its complexity. Third, if simplification occurred, concentrating on deficit rainfall seemed to make sense as this was identified as being most crucial to crop yields.

In 2008, ICICI Lombard again offered a one-phase product on similar lines of what was offered in 2006. The switch from IFFCO-Tokio back to ICICI occurred because of a desire for both deficit and excess rainfall which ICICI provided.

3. Training the Marketing Team

Training the marketing team is a vital link in the chain of insuring take-up of the weather insurance product, and there are numerous factors that the organisation should consider prior to training. First, the project assistant and the project director should coordinate resources and expertise to train the marketing team. One approach might select pull a team leader from each block or district to become a 'senior' in the marketing team. Second, the training must involve clear communication and a conscious effort to prepare marketing material in terms that a farmer can understand. For example, farmers commonly use inches in measurement of rainfall, but weather stations rainfall is typically measured in millimetres. Farmers may also be more familiar with soil moisture as a measure of when to plant, so marketing materials that explain the relationship between rainfall and soil moisture can be helpful. Comprehension of these adjustments should be tested using examples, such as asking what 500mm is in the measurement of inches. Third, the marketing team, particularly the team leaders, should be chosen based on their local knowledge and understanding of community affairs. Fourth, some level of financial literacy, understanding of basic mathematics and finance, is required of the team leaders and those in the marketing team.

Fifth, re-training may be needed to solidify information on the product, given the potential misunderstandings about insurance. The experiences of SEWA have shown that explanations may be necessary multiple times before a reasonable understanding is achieved. In practice, training requires 2-4 full day sessions led by an NGO project manager. Sample training materials are available upon request from the Centre for Micro Finance research team.

After the marketing team is trained and dispatched, they should report regularly to the project director and the NGO. This constant contact between field marketers and management enables identification of village-specific issues, engenders more discussion, and aims to spur innovation in operations and product design. It is important that the marketing team understands that they are the 'eyes and ears' of the researchers and the project director. The farmer's perspective will inevitably assist product design and facilitate a more effective project.

In general, the MFI/NGO should be aware of how farmers perceive the product and of the extent to which they, as an institution, have credibility with matters relating to agriculture. Weather insurance cannot be thought of as a purely financial intervention; the agricultural concepts are very important too, and marketers must understand agricultural challenges. The trustworthiness of the MFI/NGO providing such products is of prime importance, and possessing agricultural expertise helps in the take-up of the product. For example, SEWA already successfully provides other related services including subsidized seeds and low interest-rate loans to farmers, which helps garner customer trust when implementing SEWA's new rainfall insurance product.

4. Product Piloting: Identifying the villages

The organisation needs to carefully choose the villages in which to pilot the project. Several criteria to consider when selecting pilot villages are explained below.

First, the farmers who are eligible depend on the NGO's target market. There is a large population of small and marginal farmers who have had problems in farming, particularly when high variance in weather conditions causes crop damage. Villages with easy access to irrigation will benefit from insurance less, because they can already manage better during droughts. Therefore, it is advised to seek villages where there is an interest in agricultural risk management tools. Second, villages in rural communities should be relatively close to the NGO's location because regular visits are required which cost money and time. The villages should be in geographical areas that are easy to reach as areas susceptible to frequent floods would constrain the NGO's ability to operate. Third, district and village choice should aim to fit into the local government requirements to minimize any political frictions. Fourth, because insurance is a product that requires trust from the purchaser, it is important to select villages where the NGO is respected or has membership/affiliation. Fifth, minimizing basis risk for insurance companies is important. This should be discussed with a technical advisor, but in India, the guideline suggests that the maximum distance between village and rainfall station should be 30km. Sixth, given budget and organisation limits, the number of villages that are chosen, contingent on demands from the research bodies, needs to be analysed to ensure the NGO can handle the project.

5. Marketing Experiments and Take up Rates

Thus far, this document has established that the sustainability and ultimate success of the project depends on (i) farmers understanding the product well enough to feel comfortable with it and adopt it, which would lead to (ii) ensuring sufficiently high take-up rates to cover costs. As such, we report on several marketing experiments that affect take-up. Appendix 15.5 provides an overview of the steps taken in the SEWA weather insurance project. The marketing team primarily focused on explaining the positive aspects of the insurance product. They coordinated group meetings to personally explain and answer any concerns of potential clients. Appendix 14.6 details the different meetings and steps the marketing team used in their outreach efforts. The marketing variations, such as videos, flyers and discounts, were used to encourage clients to buy the product. Cole et al (2008a: 18-20) detail the marketing variants that were used. According to the paper, there were certain benefits in the marketing experiments. We summarise some of the findings.

- Using videos and flyers to promote the product induces a higher take-up of insurance
- Discounts have a strong effect on participation
- If the farmers trust the MFI/NGO that is marketing the insurance, then they are far more likely to purchase insurance
- Marketing efforts may take time to have a large impact to facilitate large-scale insurance adoption.

Note that most NGOs will probably want to adopt marketing methods that are the most promising, rather than running randomised evaluations as was conducted here.

In practical terms, in each of the past three years, SEWA's marketing teams of about 18 people (roughly 6 per district) visited 50 villages from late April until early June. They made two or three visits to every village, and most collection of insurance premiums occurred during their final visits. Ideally, a complete schedule of these marketing visits would be drawn up by the time of the first training.

6. Project Logistics and Monitoring

Following the marketing and sales period, the organisation should follow up with information on how the product and the payouts work. The team should also assist the client with the paperwork and any necessary contractual information. A detailed, easily-identifiable list of those who purchased insurance is necessary to know who should receive payouts. It also enables follow-ups with clients and increases transparency and aid evaluation efforts.

After the growing season and the period of rainfall monitoring concludes, the financial institution/insurer/underwriter (i.e. ICICI Lombard) will determine the payouts for the year (if any). Follow-up visits should be made to each village to tell farmers about the measured rainfall, explain the implications of the rainfall for payouts, make payouts as appropriate, and encourage farmers to buy insurance again the next year.

The various project processes should be monitored regularly. The project assistant or the project director should make regular visits to the field to informally check and evaluate progression. The message and concepts of insurance are nuanced, so monitors should ensure that the clients understand them. If possible, the NGO or the research body should recruit an additional monitor per area during the period of interaction with the farmers. A monitor can provide a further check on the operation of marketing techniques, supervision of premium collection and payments, and counselling of marketing team members. Understanding the farmer's perspective and how well team members are executing their responsibilities can help improve the project.

7. Weather Insurance: Pitfalls and Challenges

This document asserts that the successful implementation and take-up of insurance centers on financial literacy and how effectively the NGO and the insurers explain the product. The relative complexity of rainfall insurance makes it difficult to convey its utility to illiterate and semi-literate populations, which can lead to reduced demand and willingness to pay. For instance, farmers might ask, "If I purchase the insurance, and the rain is good and I don't receive a payout, can I get a refund of the premium?" This challenge is emblematic of the inherent trade-off that the insurer faces between a product's technical sophistication and the ease with which it can be communicated. A significant pitfall would be to not deal with this trade-off, both from an operational and monetary perspective.

A product that is optimally designed from the perspective of the insurance underwriter, with potentially higher premiums to cover the extra costs involved in rural markets, may be at odds with the farmers who may not be willing to pay the higher price. Additionally, the marginal costs of marketing can rise substantially. These challenges can be compounded, as in Gujarat, where for three consecutive years, rainfall stayed within 'normal' levels and clients did not receive any payouts. Consequently, maintaining farmer interest in the product became even more difficult.

8. Evaluating a Weather Insurance Product

As mentioned earlier, the Centre for Micro Finance along with development economists at Harvard University conducted a randomized evaluation of several aspects of SEWA's weather insurance product. For organisations interested in conducting an evaluation of their project, there are two applicable types of evaluation: process evaluation and impact evaluation. Process evaluation involves analysing existing operations. This may require a self-evaluation and meetings with members who are involved in the project to discuss problems or ideas on how to improve operations. Focus groups could be a method for such process evaluations.

On the other hand, rigorous impact evaluations are highly desirable because they display the product's benefit to the client. However, they also consume significant resources and must be conducted by a highly experienced team. Such evaluations typically involve baseline and follow-up surveys, along with random assignments of treatment status (e.g. villages in which the insurance is sold, and comparison villages where it is not sold).

If the organisation wishes to carry out such an evaluation, it should first conduct a baseline survey should be done prior to the marketing sessions. The baseline provides the information on which to judge whether the farmers have improved their situation. The survey should be extensive enough to enable thorough analysis and might include a profile of income, occupations, crops they grow and acres of land they own. Impact evaluations require additional staff and costs, or a partnership with outside researchers as occurred in this project. Depending on project specifications, after a specified time, potentially a mid-point or the end point, the organisation should re-survey the same villages in the same way in order to analyse the impact of weather insurance. Statistical techniques should strictly be adhered to for the project to be considered valid. External consultation may be helpful to ensure this. For discussions on impact evaluations, the MFI/NGO may wish to consult papers such as Duflo, Glennerster, and Kremer (2007) and Banerjee and Duflo (2006).

Conclusion

The purpose of this manual is to provide NGOs with sufficient guidance and information, about opportunities and challenges associated with rainfall insurance provision, to enable them to judge when and how to pursue such a project. This manual focuses on the example of weather insurance provision in Gujarat, India, and it is our hope the manual points organisations elsewhere in the right direction, explaining the key operational issues.

Resources and References

Useful resources

Self-Employed Women's Association, Ahmedabad, India www.sewa.org

The Centre for Microfinance, IFMR, Chennai, India <http://ifmr.ac.in/cmfi/>

ICICI, India – Rural insurance <http://www.icicilombard.com/app/ilom-en/Customer-segments/Rural-Insurance.aspx>

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Appendix A. Summary of findings on weather insurance projects by Cole et al (2008a)

The study is based on the BASIX organisation in Andhra Pradesh and SEWA in Gujarat, here we present some insights of weather insurance and this should help NGO understanding of the issues.

“Combining our evidence from Andhra Pradesh and Gujarat, we draw a number of conclusions about the factors influencing demand for rainfall insurance:

1. Demand for rainfall insurance is downward sloping, with a price elasticity of demand between 0.66 and 0.88, depending on the region studied.
2. Insurance demand is extremely sensitive to cash on hand. Providing the household with enough cash to purchase a policy increases participation by 34.5%. This is 3.5 times as large as the effect of cutting the price of the policy by Rs. 20 (equivalent to a 30% discount).
3. Trust plays an important role in participation in this sector of the financial system, consistent with the model and (non-experimental) empirical results of Guiso et. al. (2007). We find that endorsement of the insurance marketer by a trusted individual increases participation by 10 percentage points (or 40%).
4. Insurance demand is sensitive to other non-standard factors that are difficult to reconcile with a simple neoclassical story. The act of conducting a household marketing visit has a significant effect on the decision to purchase insurance, even though insurance is easily available to all households in the village. Also, emphasizing the benefits of the insurance to a group rather than an individual as a significant effect on insurance participation for a subset of the sample.

That said, most of the subtle marketing treatments we consider do not have a statistically significant effect on insurance participation. These subtle cues seem to be less important in our setting than trust, price and credit constraints, in contrast to the stronger effects of subtle cues found by Bertrand et. al. (2005)”. Cole et al 2008:25)

“From our results presented above, we draw a number of tentative conclusions about factors that may help boost demand for household risk management amongst the population of rural Indian farmers:

1. Unsurprisingly, we find that insurance demand is highly sensitive to price. Thus, minimising transaction costs, and boosting competition amongst suppliers of insurance, leading to lower premia, would significantly boost takeup.
2. Both experimental and non-experimental evidence suggests that liquidity constraints are an important barrier to household risk management. One design change that would potentially help to ameliorate these credit constraints would be to provide the insurance contract alongside a loan covering the monsoon (or put differently, write a loan contract to the farmer whose payments are contingent on monsoon rainfall).
3. Non-standard factors such as trust and financial literacy appear to be important determinants of household participation in the insurance product, especially in this early stage of its life cycle. Thus, proper certification of the product and the product vendors, for example through endorsement by local elders, is likely to be helpful in encouraging households to participate.” (Cole et al 2008:26-27)

Appendix B. Step-by-step overview of marketing

Step 0	Publicising the meeting
Step 1	What is Rainfall Insurance? How does it benefit you?
Step 2	Show Video
Step 3	Product Description. Payout rules
Step 4	Distribute the flyers
Step 5	Invite questions and answer them
Step 6	Distribute Discount Coupons
Step 7	Note interest and note down availability for follow-up
Step 8	Report on dates at headquarters, for appropriate scheduling in the coming days

Appendix C. Points of contact with customers

Village Meeting	<p>Create awareness among farmers using the basic video and the basic flyer.</p> <p>Explain product details</p> <p>Take questions and answer them</p> <p>Distribute general discount coupons to incentivize purchase</p> <p>Record interest for follow-up</p>
Household Visit	<p>Reinforce information about rainfall insurance</p> <p>Show them specific treatment videos</p> <p>Show them specific treatment flyers</p> <p>Offer specific coupons, if any.</p> <p>Take questions and answer them</p> <p>Collect premium and write receipt</p>
Follow-up visit by farmers	<p>Clarify doubts if any</p> <p>Collect premium and write receipt</p>

Appendix D. Budget

Budget head	Unit	Count	Cost	Budget
Leader's training for Marketing (Patan)				
Travel expenses	Trainings	4	4000	16000
Lodging Exp.	Person-Day	24	50	1200
Ahmedabad				
Travel expenses	Person & Trainings	20	75	1500
Lodging Exp.	Person-Day	20	20	400
Anand				
Travel expenses	Person & Trainings	20	150	3000
Lodging Exp.	Person-Day	20	35	700
Centrally Exp.				
Hall Rent	Trainings	4	700	2800
Lodging Exp.	Person-Day	80	35	2800 on actual basis
Time consumption	Trainings	4	1000	4000
Other (Projector etc.) Exp.	Trainings	4	500	2000
Marketing				
Honararium for the marketing team members	Person-month	15	6000	90000
Time consumption-District	Person- day-month	72	300	21600
Time consumption-centrally	Person- day-month	32	1000	32000
Travel Cost for central team	Person- day-month	8	500	4000
Traveling cost at district level	Month	4	1000	4000
Follow-up after the marketing at the project and field level)	(assumes one return visit to each village; the need for a second visit will be evaluated jointly,			
Honararium for leader	Person- day-month	96	150	14400
Lodging for the leader	Person- day-month		25	0
Time consumption-District level	Person- day-month	12	300	3600
Time consumption-Central level	Person- day-month	2	1000	2000
Office level meeting	Meetings			0

Administrative Costs (phone, fax, stationary, etc)				
District Level	District-month	9	300	2700
Central level	Person-month	3	500	1500
Product Development, Liaison with companies	Person-Day	6	4000	24000 (\$495)
Data Entry, and linkages with members to companies				
Premium collection and members data				5500
Review format & print receipt books				2500
Finalize collection and entry process				500
Maintain list of receipt books & cash				1500
Checking receipt books				1000
Pass receipt books to MIS for data entry				1000
MIS training				2500
Data entry				3500
Data reconciliation with collection team and district				1000
Sending list to insurance company				1000
Sub-total				20000 (\$412)
Maintain Rainfall data				6500
Follow-up with insurance company regarding data				1000
Compiling data periodically				2500
Sub-total				10000 (\$206)
Red Cube –Consultancy				
TOTAL				264200 (\$5445)

Appendix E. Section 2008 Implementation Budget for Rainfall Insurance-2008 for Vimo Sewa

No.	Activities and sub-activities	Amount
1	Premium collection and members data	5500
	Review format & print receipt books	2500
	Finalize collection and entry process	500
	Maintain list of receipt books & cash	1500
	Checking receipt books	1000
	Pass receipt books to MIS for data entry	1000
	MIS training	2500
	Data entry	3500
	Data reconciliation with collection team and district	1000
	Sending list to insurance company	1000
	Sub-total	20000 (\$412)
2	Maintain Rainfall data	6500
	Follow-up with insurance company regarding data	1000
	Compling data periodically	2500
	Sub-total	10000 (\$206)
	TOTAL	30000 (\$618)

This manual was written by Alastair Sussock, when he interned at the Centre for Micro Finance in the summer of 2008, in collaboration with SEWA, the Centre for Microfinance, Shawn Cole (Harvard Business School) and Jeremy Tobacman (Wharton Business School). Alastair has a Masters degree in Economics and Politics.

All views, interpretations, recommendations, and conclusions expressed in this paper are those of the author and not necessarily those of the supporting or cooperating organisations. Editing and layout was done by CMF.

The Centre for Micro Finance (CMF) is a non-profit, non-partisan research centre housed within the Institute for Financial Management and Research in Chennai. CMF receives operational funding from IFMR Foundation and the Legatum Institute, and project funding from a variety of institutional sources. CMF currently employs 40 full-time staff located throughout India.

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