

# CROP MUTUALS

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## **Purpose**

- **Mothing of Development Innovations**
  - **Promote and Nurture new ideas on different development themes.**
  - **Building around inspiring individuals as anchors**
- **Promoting Institutions to reach scale**
  - **Exclusive thematic organisations as subsidiaries**
- **Human Resource Development**
  - **Building socially concerned professionals for the development sector.**



## **Rainfed Farming Development Program**

### **Vision**

**Making rainfed farming as a viable Livelihood**

### **Broader Strategy of RFDT**

**Enhancing Viability of rainfed farming livelihoods through integrated and critical demand based interventions, depending on the context**

### **Thematic Components**

- **Community mobilization**
- **Land development**
- **Organic matter build up**
- **Crop development**
- **Livestock development**
- **Risk management**
- **Microfinance for rainfed farming**
- **Supplementary income**



## **Pilot Deficit Rainfall Insurance**

- **Rainfall has an overwhelming impact on everyday life of the poor in India**
- **Impact areas include drinking water availability, irrigation, yield of rainfed crops, fresh water fishing etc.**
- **For 60% of the total cultivated area, monsoon rain is the single critical factor deciding the yield of the crops cultivated**
- **The traditional coping mechanisms are not sufficient and not available to all farmers**
- **Government's answer through crop insurance and drought relief were inadequate**
- **So far, negligible private sector participation**



## **Our Experience in 3 years**

**Deficit rainfall indexed insurance (DRFI) with ICICI Lombard for Groundnut, Cotton & Blackgram in two locations.**

**Year.1. Crop loss in two locations and claim to the farmers for only one location**

**Year.2. Crop loss in one location and no claim to the farmers for both the locations**

**Year.3. Crop loss due to deficit rainfall was not compensated; the DRFI product did not reflect the filed situation**

**Mixed results - Basis risk**

**Date of sowing plays the vital role**



## **Design improvements on DFRI**

- **Dynamic startup date**
- **Eliminated non- water requiring crop period from coverage**
- **Introduced cap on maximum and minimum rainfall per day**
- **More segmentation of crop period**
- **Increase in accuracy of water requirement**
- **Moved from single phase policy to multiple phase policy**



## Limitations of DFRI

- **Basis risk due to**
  - Inadequate bio-actuarial design
  - Rainfall variations between field & measuring station
- **Restricted to areas around IMD stations with historical data**
- **Costly - Premium ranges from 15% to 38% of sum insured**
- **Service tax - 12.24 % on premium**
- **Inadequate Client comprehension**



## Mutual crop insurance pilot - 1

- **First of its kind in India**
- **Period: 1<sup>st</sup> August 2006 – 31<sup>st</sup> December 2006**
- **Farmers' workshops for designing the crop mutual product**
- **DRFI - Multiple phase policy for rainfed cotton**
- **Rain gauge at villages and RF was measured daily at 08.00am**
- **Sum insured Rs. 3000 (75 USD) per acre**
- **Premium Rs. 300 (7.5 USD) per acre**
- **Data collection, analysis and claim was settled in January 2007**
- **Payment in consultation with farmers and DHAN People Mutuals**
- **Stop loss safety net construction with the People Mutuals and Eureka Re**



## Evaluation and Learning of pilot – 1..

- **Payments below technical reserve**
- **Farmers satisfied with amount and fastness of settlement**
- **People Mutuals satisfied with building of reserve stemming from the remaining premium**
- **Expansion of pilot to other villages and three other types of crops**
- **Piloting of indemnification based crop insurance**



## Mutual crop insurance pilot - 2

- **Damage by Red Hairy Caterpillar is a recurring problem in cotton and black gram**
- **Control of this pest is beyond the power of individual farmers and so once the infestation starts there is no way to control it**
- **This is an independent risk across villages**
- **The damage could be specific to villages; even specific to few farms**
- **On the one side there is need for collective preventive action and on the other side there is clear need for sharing the risks across villages**
- **There is requirement for intensive monitoring which is feasible through Mutual Insurance Committee**
- **The mainstream insurance companies do not offer such products**



## Design process pilot – 2 ..

- Premium was fixed based on the historical data on occurrence of pest
- Implemented with the support of Mutual Insurance committee and an exclusive field staff
- Marking of the insured plot is done in the beginning
- Periodical monitoring by committee members and the field staff
- Summer ploughing, a pest preventive measure , is also taken into account in the design of the product; thereby encouraged crop rotation
- Safety net construction with support of People Mutuals and Eureka Re



## Mutual crop insurance pilot - 3

- Period: July – October 2007
- Indemnification of loss of income from groundnut crop amounting to Rs.525 (13 USD) to 2500 (63 USD) per acre which is occurring twice in 5 years.
- Indemnification based on the actual income loss to the maximum of Rs.2000 (50 USD) with a premium of Rs.500 (12.5 USD) per acre
- Sample yield measurement in all the insured fields
- Current year farm gate price is used for calculation of crop income
- Separate notebook for recording the crop particulars and regular monitoring by the MIC
- No compensation for the human negligence



## Result and Learning from Pilot -3 ..

- Very good yield in the first sown crop in all the villages
- In the second sown crop, average yield in most of the villages and poor yield in very few villages
- Good market price for the ground nut
- Compensated the affected farmers which works out only 13 per cent of the premium paid
- This crop mutual was possible through farmers' group and was monitored day by day by the Mutual Insurance Committee



## Way Forward for Crop Mutuals..

- Awareness on crop mutuals to cover larger area
- Farmers workshops for designing better crop mutual products for each crop
- Understanding site specific problems and designing products against each problem of different crops
- Community mobilisation, MIC formation and regular monitoring
- Frequent meetings and recording the observations
- Government support for the crop mutuals to build the solvency fund and for the back up guarantee / reinsurnace
- Including the crop mutuals as a component in all the agriculture development schemes such as NWDPA



Thank you..

