Innovations in Index Based Insurance

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Index Based Insurance

**Definition:**
Index based insurance relies on the measurement of an objective and independent parameter that is highly correlated with the actual loss incurred by the insured.
Index Insurance - Rationale

- Large number of Small sized Farm-holdings (nearly 120 million /1.2 hectare)
- Low value output per unit
- Difficulty in collection of small amount of premium from large number of farmers
- Prohibitive cost of Manpower and Infrastructure
- Asymmetric Information
- Systemic nature of Agriculture risks
Benefits of Weather Index Insurance

- **Comprehensive cover for weather related risks**
  - Rainfall, frost, heat (temperature), humidity covered which contribute to majority of crop losses.

- **Speedy & Transparent claim settlement**
  - Pre-decided payout chart
  - Paid within a month after data release

- **No hassle of crop cutting experiments and surveys, no claim forms req**
  - as lower monitoring and loss adjustment costs

- **Builds confidence of farmers**
  - Higher investments
  - Better yields and incomes
  - Since the weather data decides the compensation, the insured retains the incentive for putting in extra effort for getting better yield of his crop
Key challenges & possible solutions in index insurance

- Lack of awareness among farming community
- Establishing correlation between loss to farmer and weather performance
- Manpower and infrastructure requirement

Creative distribution

Innovative distribution & marketing activities – WPOS, promotional activities, add on services like agro advisory

Product innovation

Product innovation like floating risk inception, floating SI, aggregating SI, cover for catastrophe events

Use of technology

Use of technology & cross utilization of existing infrastructure
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IL Weather POS
Technology at work: IL Point of Sale System

- IL POS: Effective solution for rural areas having limited internet connectivity
- Allows business user to transact end-to-end from premium acceptance to policy issuance using a desktop PC instantly
- The application works in a Hybrid mode i.e. Offline – Online mode
  - Credit limit set for agents/intermediaries
  - Policies can be issued till limit exhaustion
  - Credit limit reinstated once premium is accepted in the IL system
Building awareness through direct contact

Farmer meetings in MP, AP

Gram sabhas are held in villages

O& M used for “Munadi” activity
Van Campaigning for insurance enrollment

Van campaign in Haryana
Spreading insurance awareness at the Kiosk

Insurance policy can be delivered on the spot
Reaching hinterland – Insurance on wheels with partners
Taking training to the field- on wheels

Dedicated training team

Partners during training session
Claims settlement: bonding with the consumers

Trust once created, leads to meaningful sales opportunities in the future
Insurers settling claims: Investing in building trust
Key challenges & possible solutions in index insurance

Lack of awareness among farming community → Creative distribution

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Establishing correlation between loss to farmer and weather performance → Product innovation

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Manpower and infrastructure requirement → Use of technology

Use of technology & cross utilization of existing infrastructure
Innovations

- **Floating Risk inception:**
  - Product designed in such a way that risk inception date adjusted as per date of sowing of crop to take care of minor fluctuation in weather cycle
  - Best suited for crop dependent on rain

- **Floating Sum Insured:**
  - Sum insured float across various phases so that farmer will get maximum benefit no matter which peril has triggered

- **Aggregating Sum insured:**
  - Sum insured get accumulated as risk phase expired
  - Farmer will get maximum benefit if loss occur towards end of the harvesting period

- **Provision of paying full Sum insured in case of catastrophic event**
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NDVI based Remote Sensing - Challenges

- NDVI can be successful, if higher resolution images are used.
- Results are accurate (80-90%) if NDVI value is taken 3-4 days prior to harvesting.
- Costly method
- Scalability and sustainability are major challenges

Solution:
- NDVI along with reduced number of yield estimation experiments can be a solution
Other Initiative

- Crop and region specific Agro advisory
  - SMS based weather updates
  - Warnings for untoward weather
- Free helpdesk for farmers
- TOPS Model (Terrestrial observation and predication system):
  - Will provide weather data for 1x1 Km surface area
  - Lower vulnerability
  - Lower costs/losses
  - Achieve policy objectives at lower cost
Thank You!!