
Covering Agricultural Risks through Index based weather insurance: BASIX experience

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Micro Insurance Workshop, Colombo,
29-Jun-2007

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BASIX

Equity for Equity

Contents

- Rationale for having weather insurance in India
 - Evolution of Weather Insurance at BASIX
 - Challenges and Issues
 - Roles of different stakeholders
 - Key Success Factors
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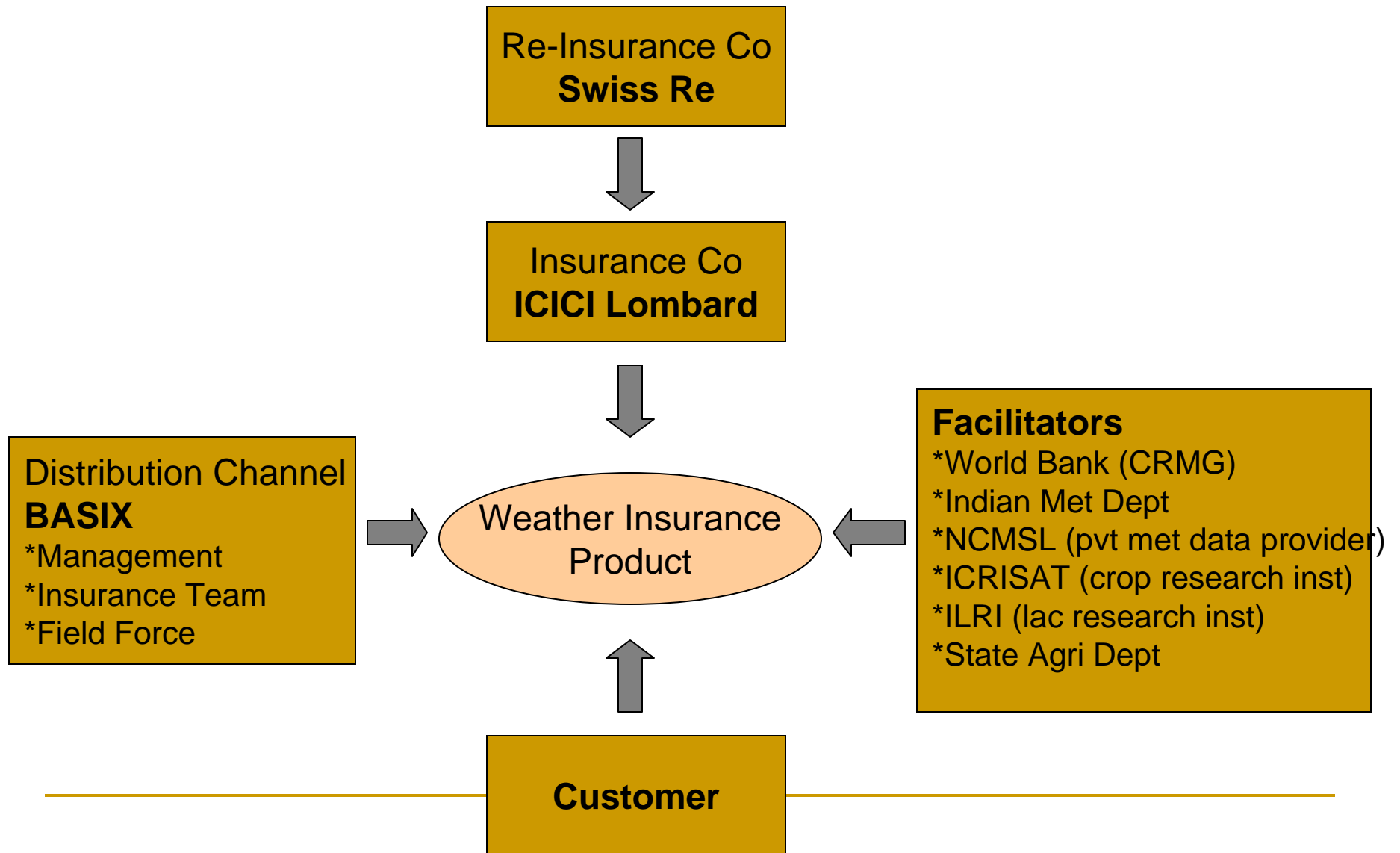
Evolution of Weather Insurance at BASIX

- ❑ BASIX operates in over 12,000 villages spread over 10 states in India, serving 0.5million customers
 - ❑ With a mission to promote sustainable livelihoods
 - ❑ And by choice works in the poorer and arid districts of India
 - ❑ Where Agriculture is the predominant source of livelihood for households
 - (majority(80%) of whom have a land holding of less than 2hectares)
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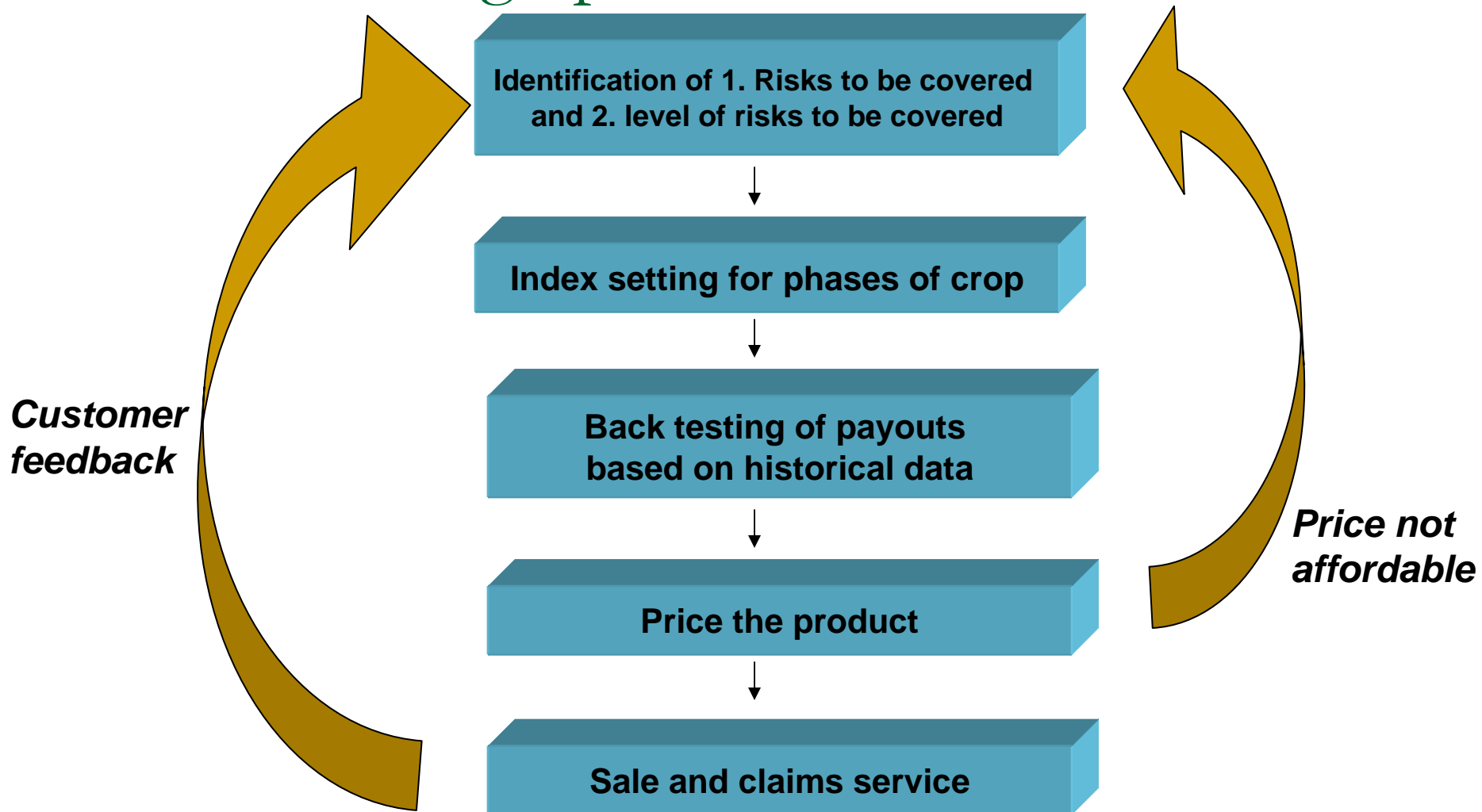
Evolution of Weather Insurance at BASIX

- BASIX's customer contact and interactions in the initial years of operations showed that while credit is necessary, it is not sufficient for promoting livelihoods
 - (as on Sep-06 BASIX made cumulative disbursements of Rs 7 Billion and had an outstanding credit portfolio of Rs 2 Billion)
 - Risk management particularly for rainfed-agriculture was identified as an important credit plus service to be offered to its customers
 - Between 1999-2001, BASIX carried out research and undertook small pilots in testing an in house crop insurance scheme
 - Which culminated in the first weather insurance pilot in 2003, in collaboration with ICICI Lombard and World Bank
-

The ecosystem that delivered



Product design process



Program Evolution at BASIX

- **First pilot of rainfall insurance carried out in 2003**
 - 1 district
 - 2 products, 1 rainfall station (only district rainfall station)
 - 230 policies sold
 - Single phase product

 - **Second year – 2004**
 - 3 districts
 - 10 product variations, 5 rainfall stations (block level stations included)
 - 427 policies sold
 - Coverage given for 3 phases of crop
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Program Evolution at BASIX

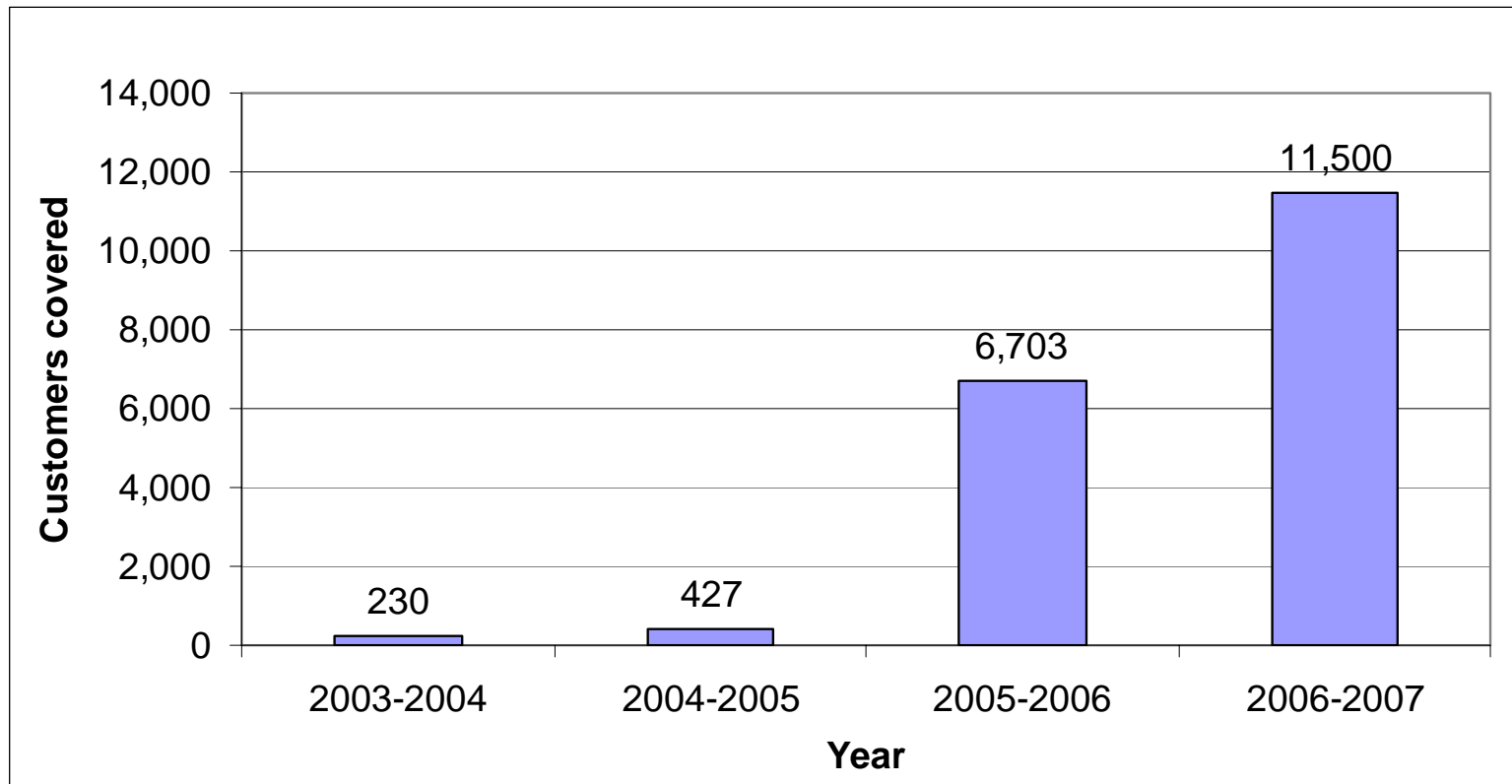
■ **Third year- 2005**

- ❑ Moved to a generic weather insurance product
- ❑ Introduced more enhanced product features e.g dynamic cover start date
- ❑ Sold weather insurance products with reference weather stations in 36 locations
- ❑ Scaled the service to 6 states in India.
- ❑ Sold to 6,703 customers
- ❑ All insurance companies put together reached more than 100,000 farmers
- ❑ Simplified data entry and processing

■ **Fourth year- 2006**

- ❑ Introduced excess rainfall cover to all locations
 - ❑ Products designed for 50 weather station locations
 - ❑ Selling took place in 7 states
 - ❑ Sold to 11,500 customers
 - ❑ Outsourced data entry and some of sales support services
-

Weather Insurance- Growth year to year at BASIX



Financial Performance

Year	2003	2004	2005	2006	Cumulative
Claim Payout/Premium Collected	<1	>1	<1	>1	<1 (70%)
Weather Stations	1	5	36	50	

- In its limited experience, the product sustainability has been enhanced through **temporal** and **spatial** diversification of risk

**Spatial Diversification of risk
in 7 States**

States & Capitals INDIA



Scale up in the sector by ICICI Lombard in 2006

Crop	Risk Details	States	Number of farmers	Area covered (in acres)	Sum Insured (Rs mn)
Soybean	Deficit rainfall	RJ, MP	4,112	16,418	66
Oranges	- Deficit rainfall - Prolonged dry spell	RJ	453	1,223	6
Generic product for all field crops	- Deficit & Excess rainfall	Ap, MP, MH, Jharkhand, KK, Orissa, RJ and TN	19,100	22,000	66
Grapes	- Deficit & Excess rainfall, Temp	MH, AP	365	395	20
Paddy	- Prolonged dry spell - Excessive rainfall	Punjab	1,625	7,643	30
Cumin	- High relative humidity	RJ	686	688	6
Coriander	- Frost like temperature - Unseasonal rainfall	RJ	2,075	2,200	6
Fenugreek	- Excessively high temperature during days with high RH	RJ	70	260	2
Kinnu	- Excessively high temperature - Deficit rainfall	RJ	62	80	4
Wheat	- High temperature - Unseasonal rainfall	Punjab, Haryana	874	875	4
Cotton	- Deficit rainfall	MH	100,018	100,084	160
Total			150,000	180,000	

Challenges and Issues

- Need to reduce basis risk through
 1. Deepening the network of weather stations to make the weather data more relevant to farms that are scattered over a wide geography
 - (but, is the investment to be private or public?)
 2. Improved design of the product to increase the correlation of the indices to crop requirements
 - (yet simple enough for the easy comprehension of the majority of farmers, who are illiterate)
 3. Integration of insurance with Business development services that focus on risk mitigation and productivity enhancement, so as to give a more complete solution to customers and to also reduce cost of transactions
 - (in the absence of this, there are undue expectations from farmers on the risks that a weather insurance contract can cover)

 - Greater investments to educate the target market on the concepts of insurance, its function and benefits.
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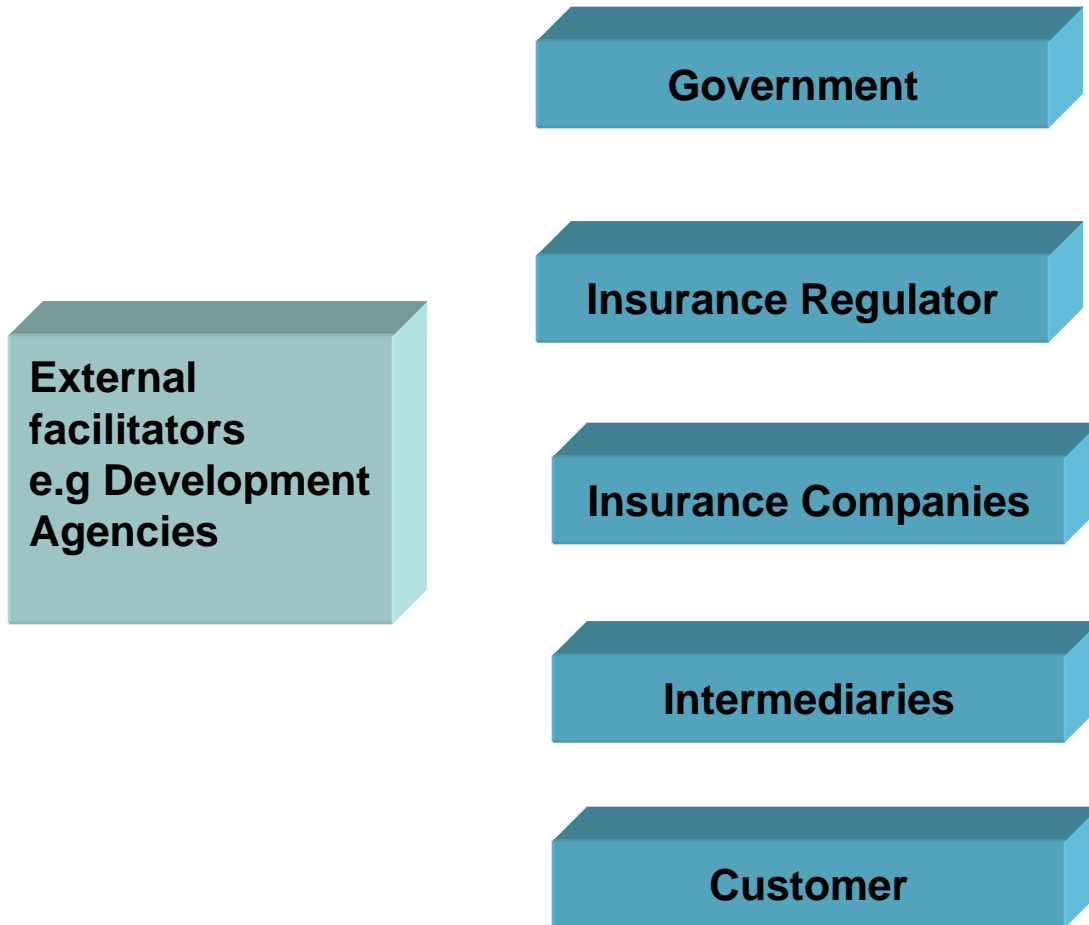
Automated weather station from NCMSL



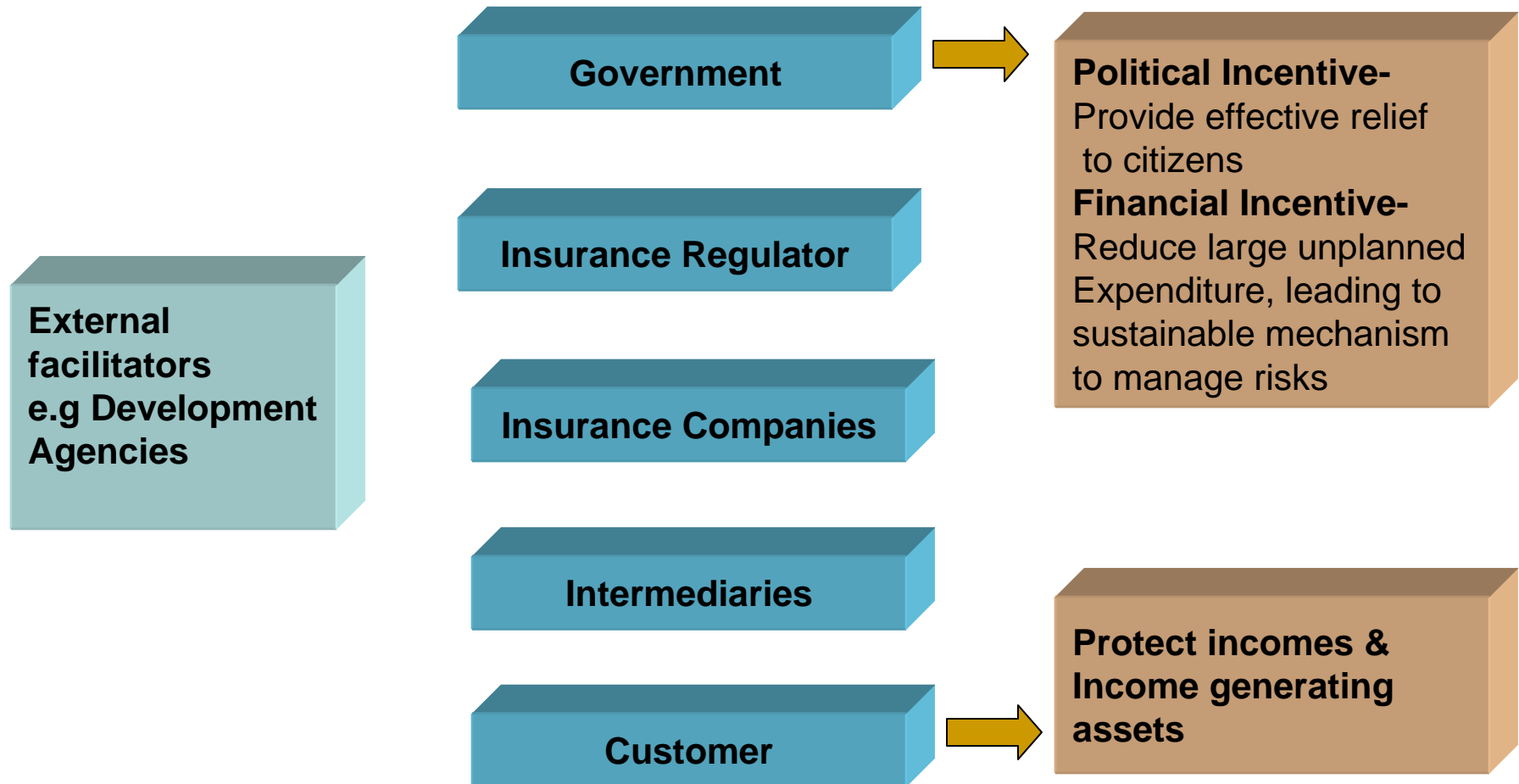
Challenges and Issues

- Service tax rates levied reduce the affordability and attractiveness of the product to customers
 - Need to improve the maintenance of existing IMD weather stations so that certified weather data may be made available more promptly
 - (In some districts it takes more than 3months to obtain certified data and such locations weather insurance loses one of its key promises of quick settlement of claims)
 - The setting in of path dependency- market chooses a product that may not be the best.
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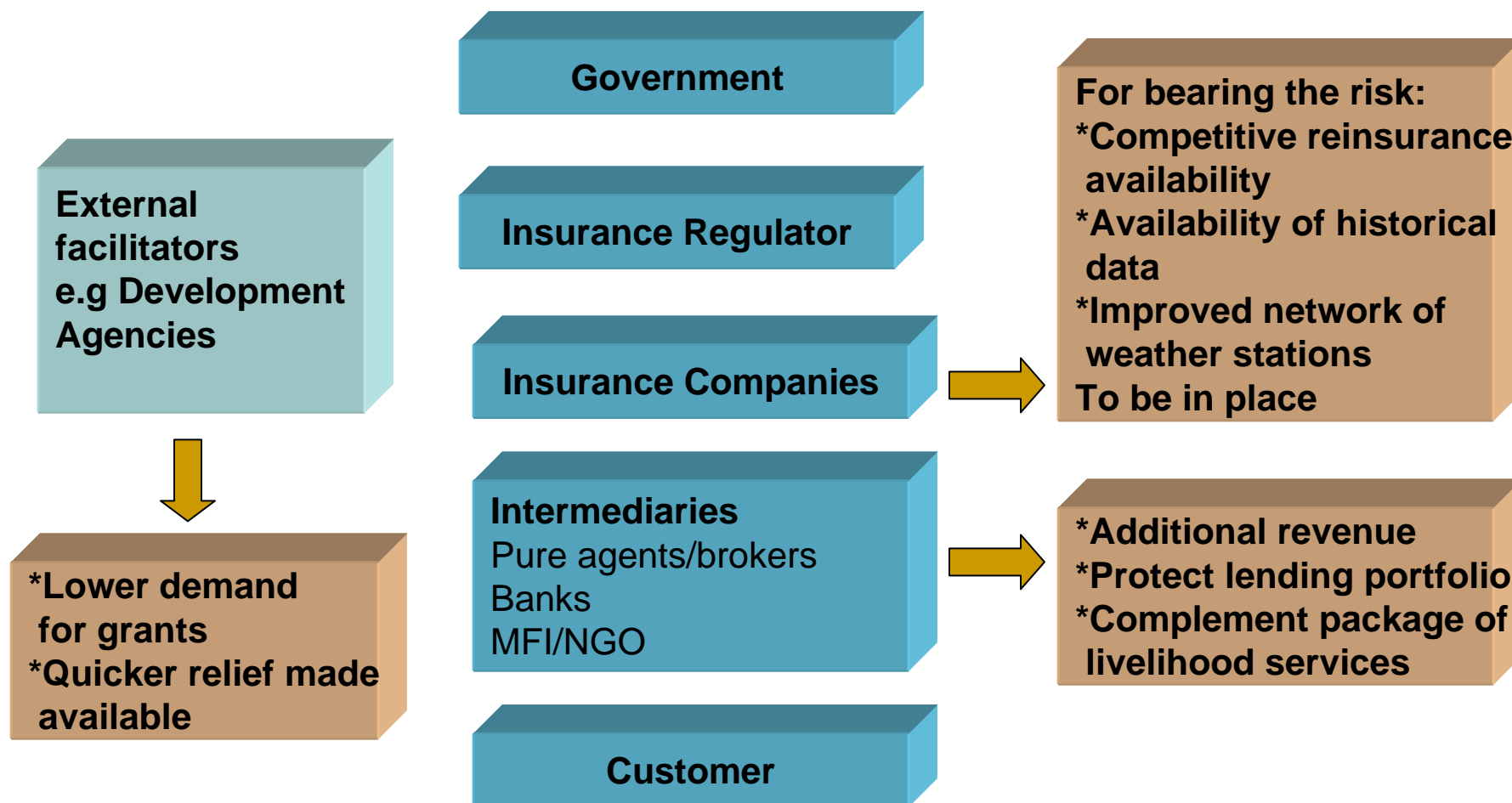
Stakeholders Involved in providing weather insurance



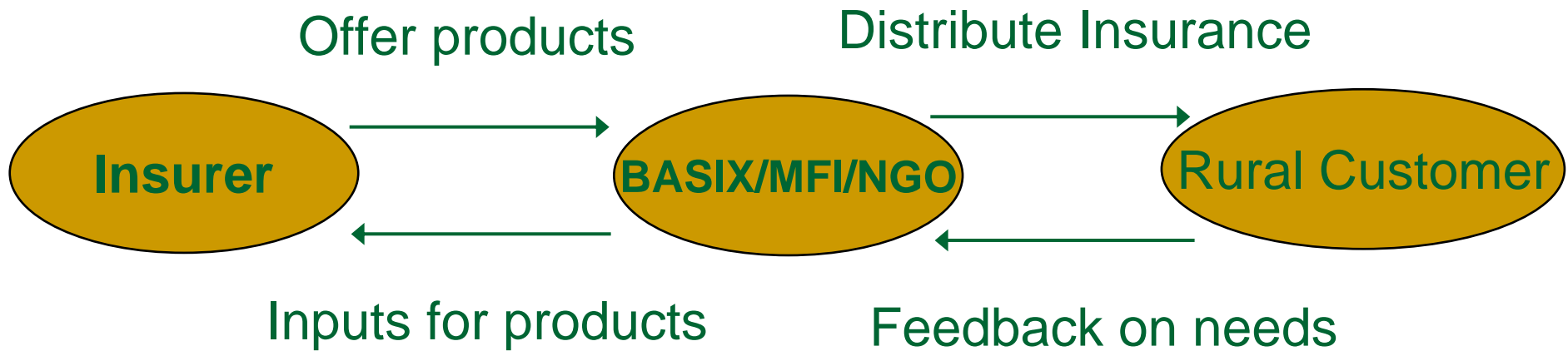
Incentives for users



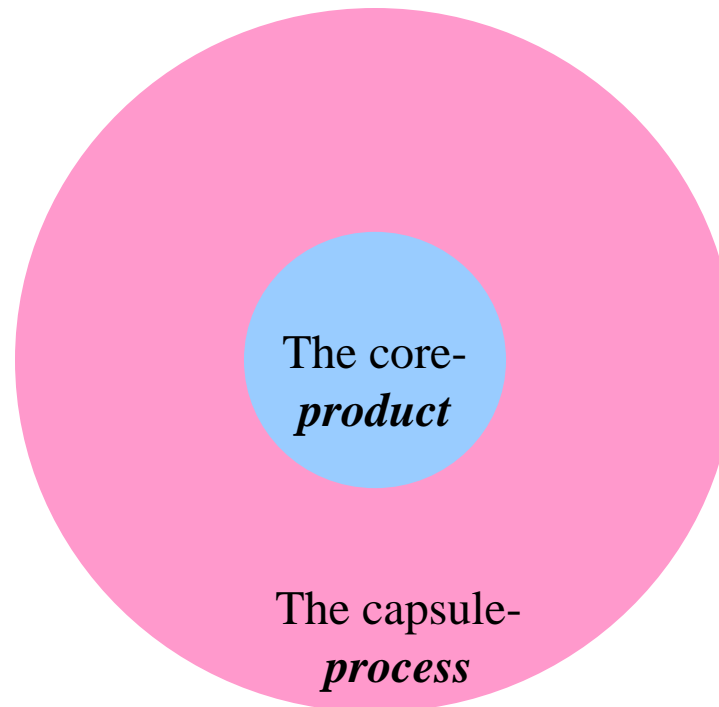
Incentives for providers/facilitators



Role of Insurers and MFIs

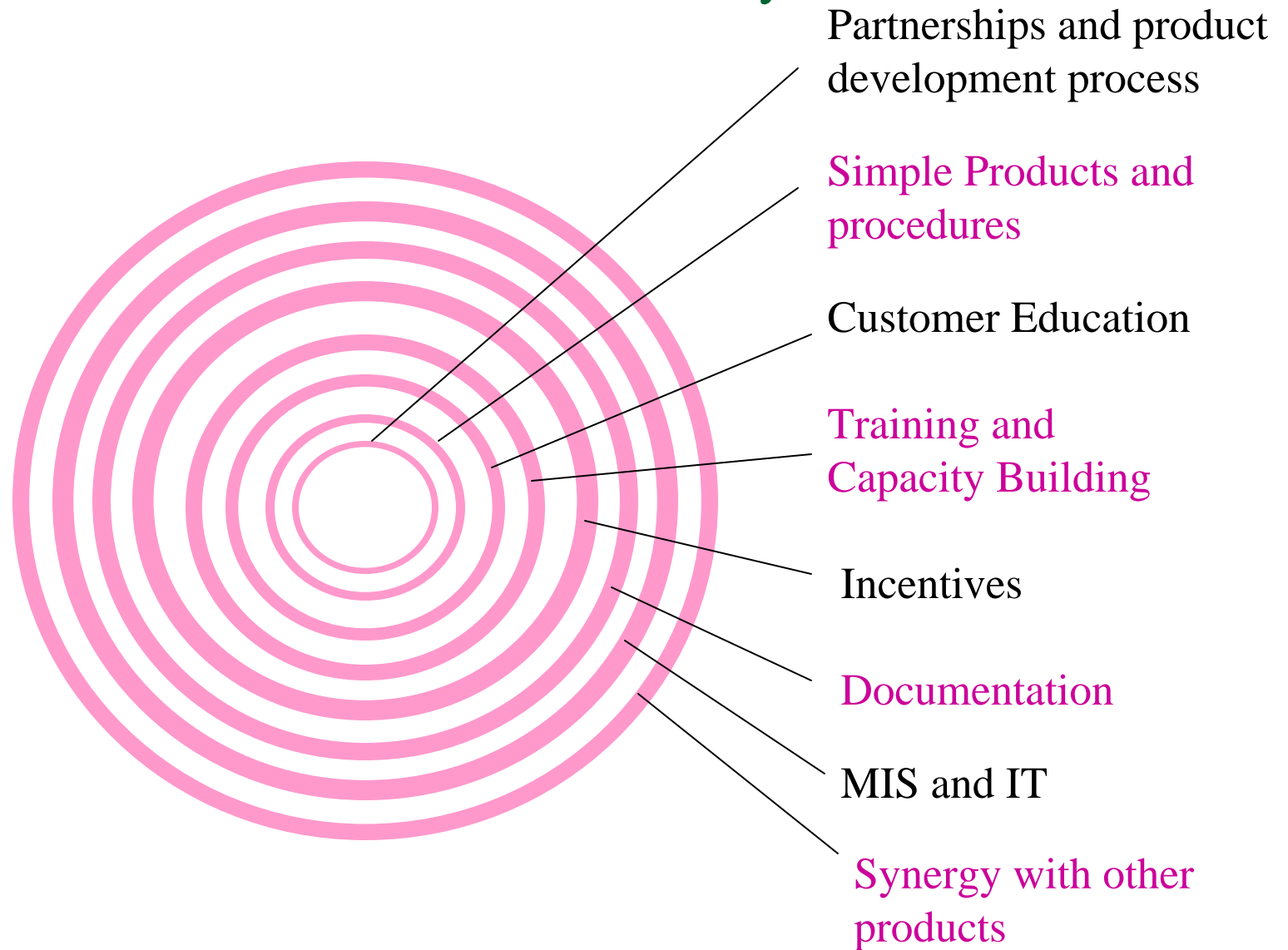


Dissecting the challenges in delivering Micro-Weather Insurance



BASIX experience and initiatives have been largely to address the process bottlenecks and make fine refinements to products from time to time.

...and there are several layers to it



Partnerships and product development process

- Shared understanding on developing the insurance program on a financially sustainable basis. Pricing to cover costs in the following order:
 - Risk cost
 - Administration cost
 - Desired surplus
 - Understanding the gap between an ideal product and what could be delivered with the given constraints, like lack of actual product experience
-

Partnerships and product development process

- Get started – Revisit product based on experience

 - Choice to be made between
 - A lengthy iterative process of conceptual design vs
 - Iterative improvements in product, based on field testing

 - Appreciate and compliment each others strength:
 - Actuarial background of Insurer and
 - Close customer contact and customer insight of MFI/NGOs
-

Simple products and procedures

- Keep the fine print to minimal level
 - It would be great to have all the product details conveyed in a one page document with a minimum 20 size font
 - Product should speak the language that the farmer can understand
 - In 2003, the claim trigger was defined as a percentage of deviation from the given index.
 - Farmers found this difficult to understand
 - In 2004, the claim triggers were defined as a net deviation (in mm) from the given index
 - Benchmarking for simplicity
 - Not only should it be simple enough for the farmer, but also to the field staff who interacts with farmer
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Customer awareness and education

- Through
 - Village meetings
 - Various forms of print material and
 - Creative multimedia content
 - Communication in vernacular
 - Customer education programs may not translate into immediate uptake
 - Need for investment from several stakeholders- both private and public
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Training and Capacity Building

- Insurance has to be sold
 - Micro-Credit is a suppliers market
 - Micro-Insurance is a buyers market
 - The transition for pure micro-credit organizations can be challenging
 - It needs to be supported by other supports systems, like right mix of incentives and post sale service delivery systems (providing regular weather data to customers)
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Documentation

- Keeping it simple and small
 - This will have to be led with simple product features
 - Avoid data redundancy in the same form (e.g name and other particulars of insured)
 - reduces cost of data entry, data processing and data storage
 - This can also reduce inconsistent capturing of same data leading to data errors and underwriting complications
 - Ask for relevant data (asking banking data from customers who have not seen the face of a bank can be avoided)
 - Design for mistake proofing in document formats
 - Data capturing systems should be extremely efficient and cost effective, besides being customer friendly to manage financially sustainable micro-insurance policies
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Documentation-mistake proofing & cost reduction

upto
2006

Term sheet
(with product
reference code)

2007

Enrollment
form

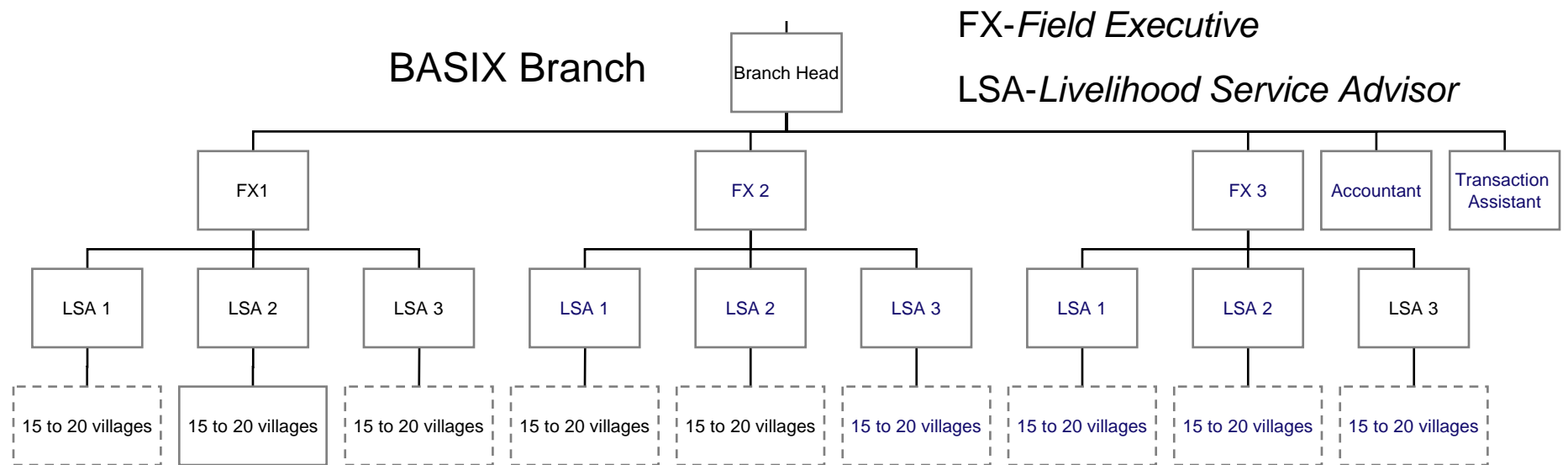
Product term sheet
& enrollment form

Investing in MIS, Information Technology and process innovations

- Business requirements should dictate IT development and not the other way round
 - Sometimes MIS systems of Insurers/MFIs are frozen in past which can slow down new product introduction
 - BASIX developed a separate IT package called IDIAS to support the fast growing insurance business
 - It is now working to integrate IDIAS with its enterprise application called DELPHIX
 - BASIX started a rural BPO to outsource a lot of insurance related back office transactions to achieve both operational efficiencies and improved quality control
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Synergy with other products and services

- Rural customers need various financial and non-financial services
 - Distribution costs for intermediaries is high due to geographically scattered rural customers
 - Distribution costs per product/service can be reduced by providing multiple services through a single window
 - Making the products more affordable for rural customers
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LSA travel to village



*Interacts,
assesses and
provides...*

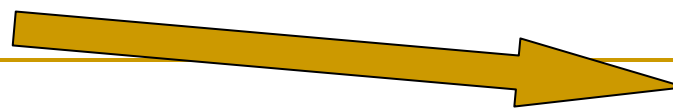


Credit



Insurance

**Agri-Business
development
services**



Thank You

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