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Landscape of Crop and Livestock Insurance in India

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INTRODUCTION

IFMR LEAD has conducted a detailed landscape assessment of agricultural insurance in India, with a focus on crop and livestock insurance. In this report, we present a brief overview of the sector's evolution and describe the current landscape of products available. We also provide details on take-up and usage of crop and livestock insurance and highlight the barriers and challenges faced on the supply and demand sides. Lastly, we summarize the key gaps and takeaways based on conversations with major stakeholders in the sector.

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Disclaimer:

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LANDSCAPE OF CROP AND LIVESTOCK INSURANCE

India is among the most disaster prone countries in the world (Figure 1). Overall, 85% of Indian land and more than 50 million people are at risk from natural and man-made disasters.

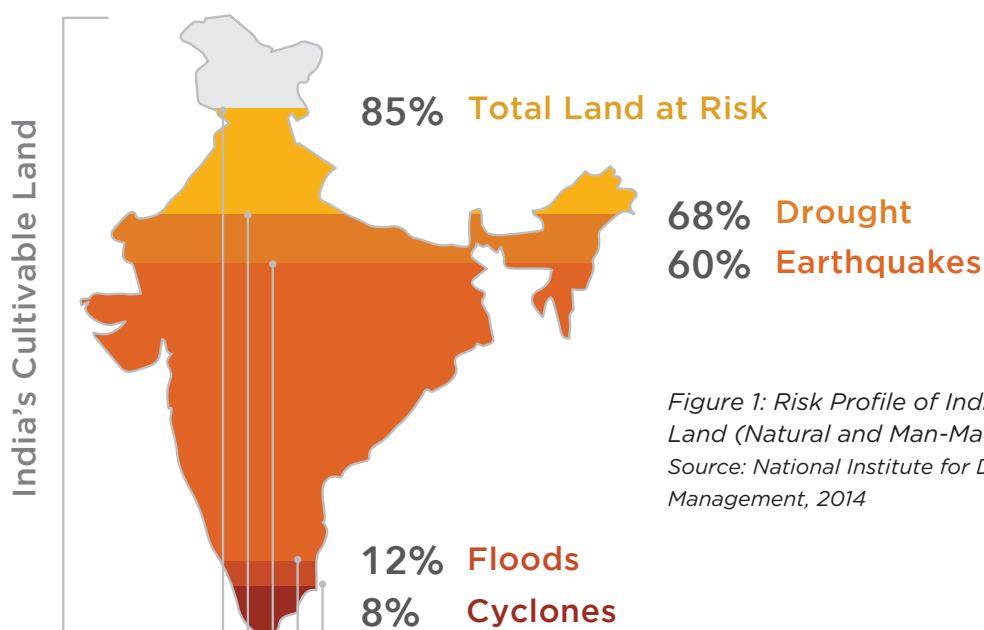


Figure 1: Risk Profile of India's Cultivable Land (Natural and Man-Made Disasters)
Source: National Institute for Disaster Management, 2014

The Agricultural Risk Management Team (ARMT) at the World Bank, lists out a variety of ways through which these risks can be managed (Figure 2). Though insurance as a risk transfer strategy forms a crucial part of risk management, there are various other mechanisms that farmers in India employ to reduce the losses from natural calamities such as floods, droughts, and outbreaks of pests and diseases that affect crop output, or livestock.

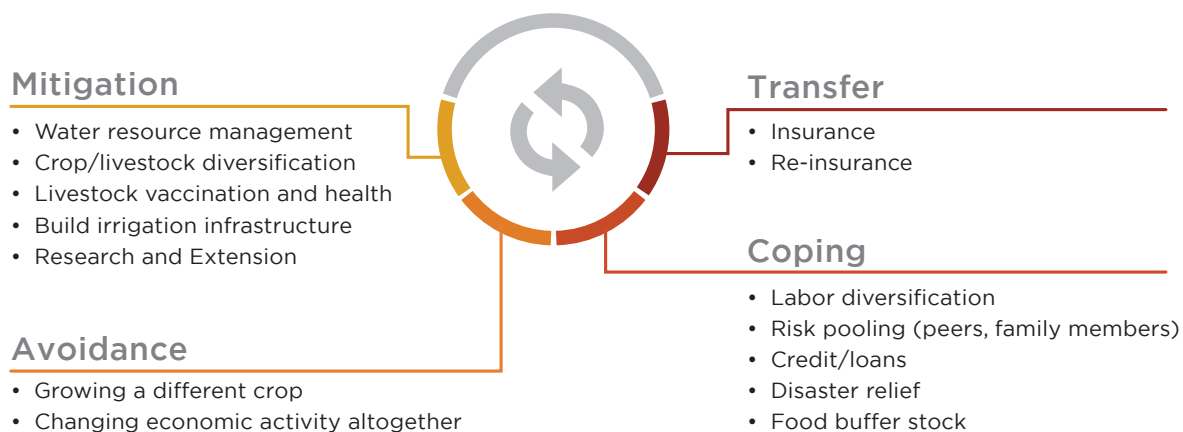


Figure 2: Risk Management Strategies in Agriculture in India
Source: Agriculture Risk Management Team, World Bank, 2011

Crop Insurance Schemes

- Bio-fuel Tree, Floriculture, Plantation, Pulpwood Insurance
- Restructured Weather Based Crop Insurance Scheme (RWBCIS)
- Pradhan Mantri Fasal Bima Yojana (PMFBY)
- Coconut Palm Insurance Scheme (CPIS)
- Revenue Insurance Scheme for Plantation Crops (RISPC)

1971	Cattle Insurance Scheme by Small Farmer's Development Agency (SFDA) for loanee farmers
1972	Experiments on crop insurance on a limited, ad-hoc and scattered scale based on individual
1979	Pilot Crop Insurance Scheme (PCIS) on an area approach for loanee farmers
1983	Cattle Insurance Policy by Intergrated RUrual Development Program (IRDP) Livestock Insurance under Market Agreement by GIC
1985	Comprehensive Crop Insurance Scheme (CCIS) on area approach compulsory for farmers availing crop loans`
1997	Experimental Crop Insurance Scheme (ECIS) introduced in 14 districts of 5 States
1999	ECIS replaced by improved and expanded "National Agriculture Insurance Scheme" (NAIS)
2000	Pilot Scheme on Seed Corp Insurance (PSSCI) introduced in Kharif Season in 11 States
2003	Pilot project, viz. Farm Income Insurance Scheme (FIIS)
2006	Livestock Insurance Scheme by State Livestock Development Boards (SLDB) and State Animal Husbandry Departments (SAHD)
2007	Pilot of Weather Based Crop Insurance Scheme
2010	Modified National Agriculture Insurance Scheme (MNAIS) on a pilot basis in 50 districts
2013	National Crop Insurance Programme (NCIP) formulated by merging the MNAIS, WBCIS & CPIS with improvements
2014	Risk Management and Insurance component of the National Livestock Mission
2016	Launch of Prime Minister's Fasal Bima Yojana (PMFBY)

Figure 3: Timeline of Crop and Llivestock Insurance schemes in India
Source: Illustration created by the authors using information from literature

Crop and livestock insurance started out as small schemes or pilots by the government in the early 1970s. Over the years, both have evolved sporadically but continuously through the latter half of the century and are still evolving in terms of scope, methodologies and practices. Figure 3 traces the evolution of both insurance schemes over the years.

Based on provisional estimates received from the Ministry of Agriculture, the scheme has not achieved the expected coverage as compared to the previous year i.e. 2016 in terms of loanee and non-loanee farmers for both Kharif and Rabi.

On the other hand, the number of livestock insured per year has been increasing (Figure 7).

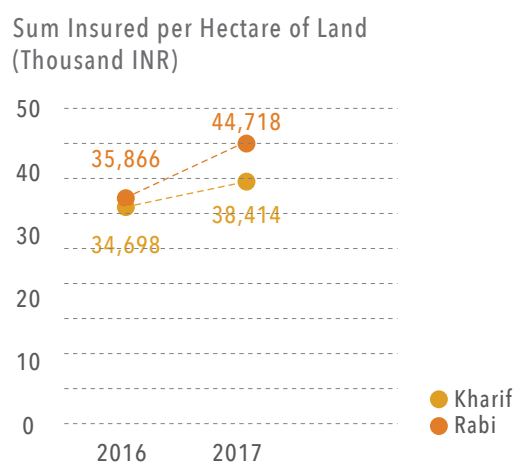
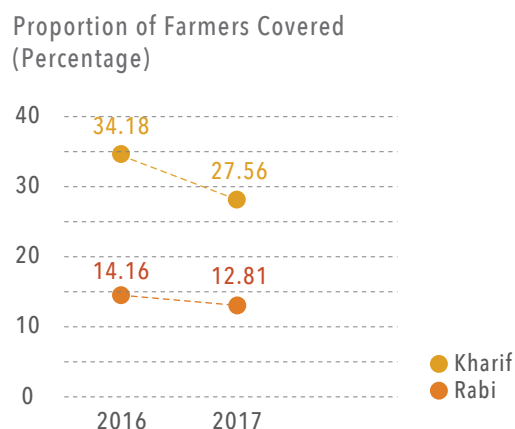


Figure 4: Performance of PMFBY 2016-2018
Source: Department of Agriculture Cooperation and Farmer's Welfare, 2018

Sikkim	100
Puducherry	99.5
Tamil Nadu	77.5
Jharkhand	77.1
Tripura	74.6
Maharashtra	65.9
Karnataka	49.0
West Bengal	32.6
Kerala	31.3
Manipur	29.1
Himachal Pradesh	15.9
Chattisgarh	12.7
Uttarakhand	12.5
Telangana	7.8
Andhra Pradesh	7.5
Madhya Pradesh	7.3
Orissa	1.8
Bihar	1.5
Rajasthan	0.5
Uttar Pradesh	0.3
Gujarat	0.2
Harayana	0.2
Assam	0.1
Andaman & Nicobar	0.0
Goa	0.0
Meghalaya	0.0

Figure 5: Share of Non-loanee Farmers in Each State (Percentage)

Source: IRDAI, 2016

Figure 6: Gross Direct Premium Growth in Non-Life Insurance (Percentage)

Source: IRDAI, 2016

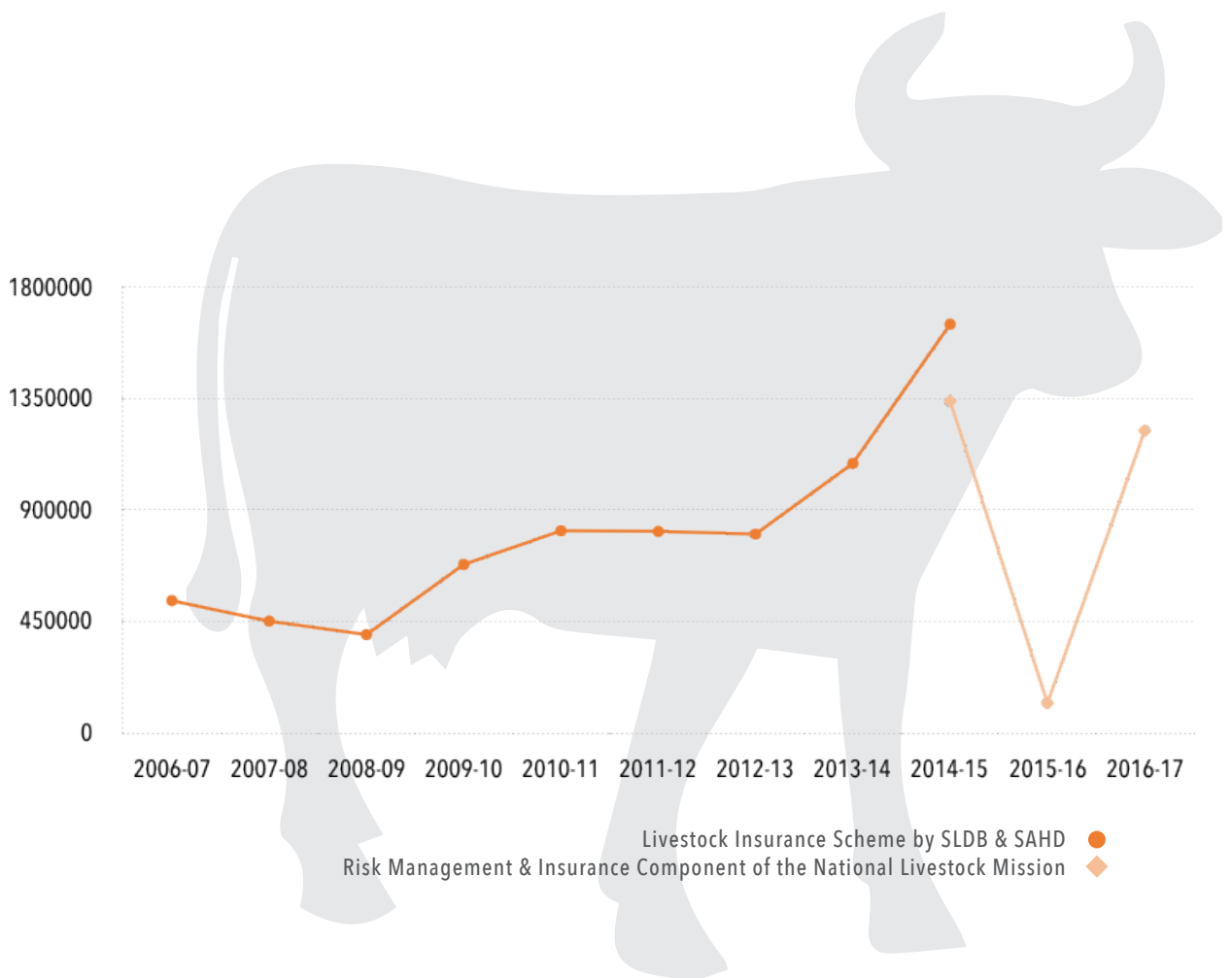
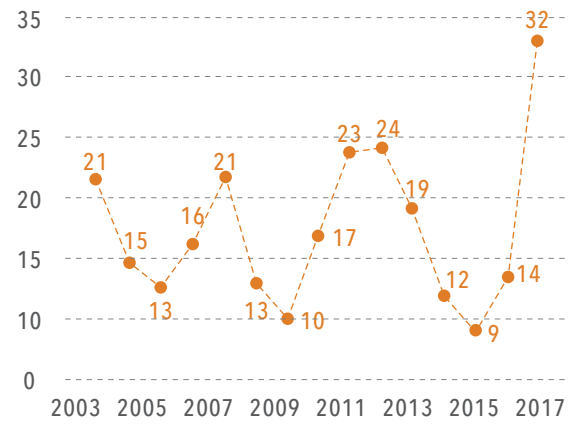


Figure 7: Number of Livestock Insured in India

Source: Department of Animal Husbandry, dairying & fisheries

Figure 8: Proportion of SGVA from crop that is insured (2016-17)

Source: Department of Agriculture Cooperation and Farmer's Welfare, 2018

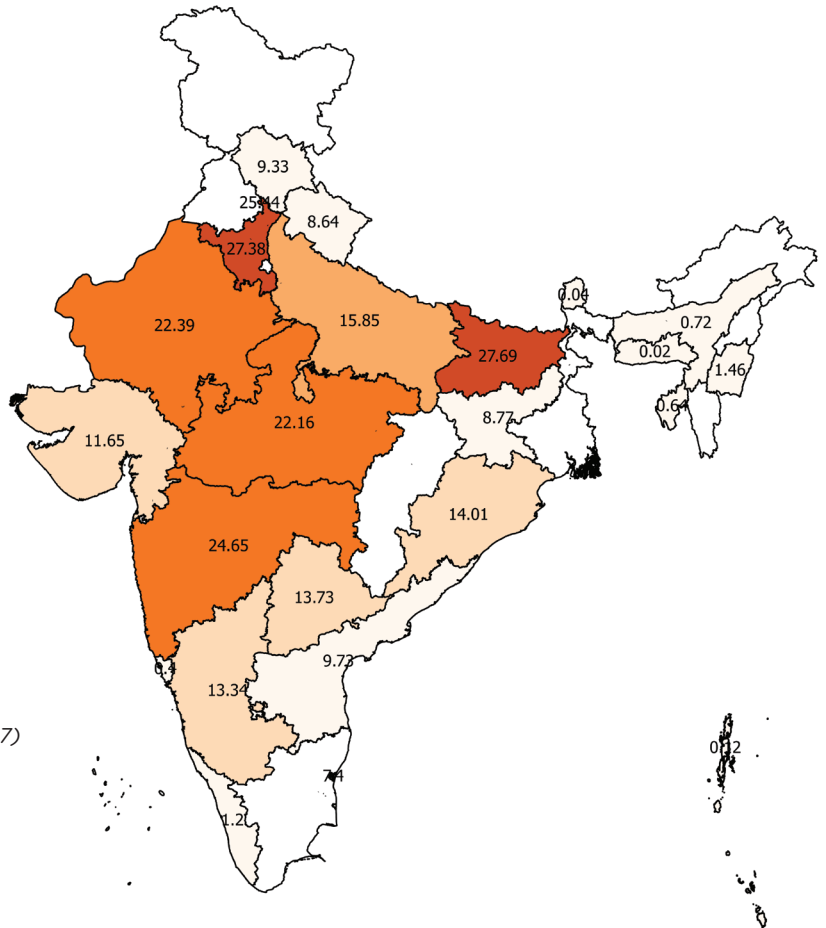
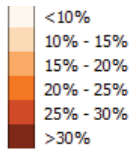
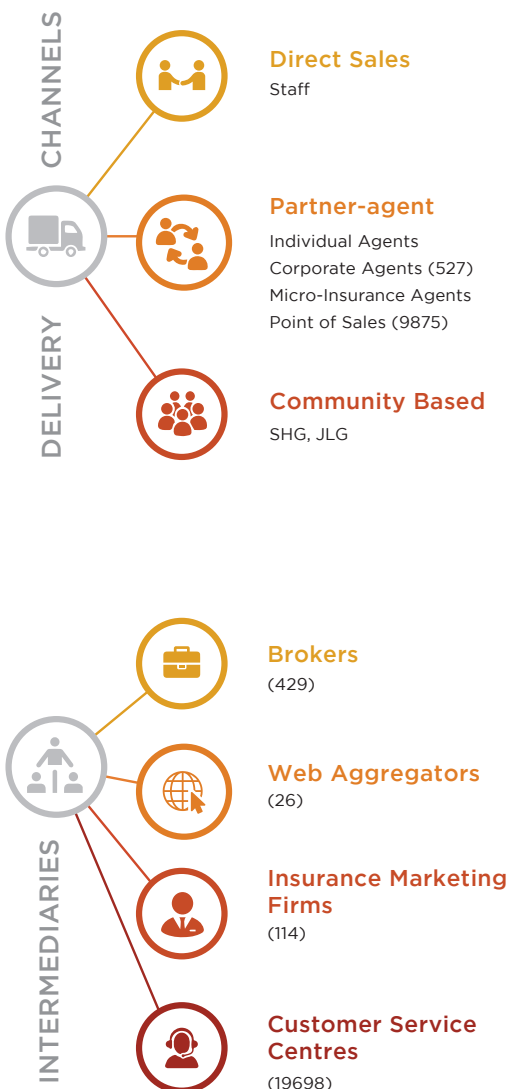


Figure 9: Delivery Channels for Crop and Livestock Insurance Products.

Figures in brackets represent the number of channel/intermediary available in India (IRDA, 2017)



There is high variation in the gross value added by crops that is actually insured in different states (Figure 8). This varies from as low as 0.2 percent in Meghalaya to a high of 27.69 percent in Bihar. Overall, not more than 30% of the GVA from crops is insured in any state (where data is available).

Next we look at the delivery mechanisms that are used to distribute different crop and livestock insurance products in India (Figure 9). Such mechanisms help in the delivery of the product to the relevant customer. While the delivery channels for loanee farmers are well established, for non-loanee farmers there is a lack of investment as well as incentive to set up channels suited for them. This is partly responsible for the low take-up of insurance among non-loanee farmers in many states.

In addition to this, there are various other demand and supply side constraints have resulted in limited access and take-up of agricultural insurance products for low-income farmers in India. Figure 10 lists some of the key supply, and demand-side challenges.

Supply Side Challenges



- Product design
- Value proposition of product
- Lack of risk reduction components
- Moral hazard/adverse selection
- Challenges in addressing lack of awareness
- Lack of co-ordination between stakeholders
- Lack of improvement in delivery infrastructure and high transaction costs

Demand Side Challenges

- Non-coverage of important crops and agricultural practices
- Lack of outreach efforts
- Documentation
- Lack of trust
- Fragmented set of risk management solutions
- Intangibility of the product
- Lack of Awareness

Figure 10: Demand and Supply Side Challenges
Source: Based on stakeholder interviews and literature.

KEY TAKEAWAYS

Risk management and resilience building activities in India remain fragmented even today, and much needs to be done to ensure that the efforts of various stakeholders (government, public and private insurers, community organizations and individuals) converge in a manner that is beneficial to the farmer. For this convergence to happen, various steps need to be taken:



Risk Assessment: Need for a thorough assessment of the various risks faced by the farmer, and the agricultural value chain today, and a clear enunciation of adequate strategies by the various stakeholders involved, to extend risk management strategies to all.



Agri-Insurance: Agri-insurance is currently sold as a stand-alone product, or one that is credit-linked; the future of the agri-insurance business depends on the ability of insurers to package, and bundle their products with other services in a manner that is far more appealing, impactful, and relevant to the daily needs of the farmers.



Livestock Insurance: Disproportionate amount of importance is given to crop insurance vis-a-vis livestock insurance, especially milch animals, in India. No risk management, and resilience building strategy in agriculture can succeed in the long term without adequately safeguarding livestock, given the high-value potential of livestock.



Partnership Building: Insurers are not well-placed to undertake any other risk management activities, apart from risk transfer. The aim for the next generation of insurance products should be to ensure that meaningful and high-value partnerships and synergies are created between community organizations and private insurers.



IFMR LEAD is a non-profit research organization conducting high-quality scalable action research and outreach in development economics and finance. We are dedicated to leveraging evidence-based research to further economic and financial development of poor people living in India and other low-to-middle income countries. Our vision is to foster improved financial access, better legal and physical infrastructure, and targeted social services for individuals, households, and enterprises, to help them attain their socio-economic aspirations. We are driven by the belief that innovative action, paired with rigorous research generates a distinct public good that promotes human freedom and capability to lead better quality lives.



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