

SPEAKERS' PROFILE & TOPIC OF PRESENTATION



Manalur Sandilya

Bio: Manalur S Sandilya is a consulting actuary based in Chennai/ Mumbai. He is associated with ICICI Lombard and GIC Re and has worked on Weather and Crop Insurance, both in India and USA. Sandilya is a Fellow of the Casualty Actuarial Society, USA and the Society of Actuaries in Ireland.

Topic: Pricing Weather-Index Insurance Products in India

Manalur would share the technical aspects of pricing the weather and crop insurance products in the Indian context. The focus will be on data availability and the need for simulation.



Sonu Agrawal

Bio: Sonu Agrawal founded Weather Risk Management Services Limited (WRL) in 2004 that pioneered Weather Insurance/Derivative contracts in the Indian Market. Since then, WRL has grown into a comprehensive Climate Risk Management company providing products and services in South Asia, South East Asia and Eastern & Southern Africa. Sonu did his Post Graduation in Physics from IIT Kanpur and Post Graduate Diploma in Management from IIM Calcutta. He worked with

the ICICI group in various capacities from 2000-2003

Topic: Overcoming Actuarial Hurdles in Index Insurance

Problems in actuarial pricing: gaps in meteorological data. Not enough historical data to capture weather variations. Yield data for crops is problematic, Will cover the challenges in pricing of products and risk modelling for various kinds of index insurance products such as weather, yield, hybrid, satellite based etc. Role of the actuarial community is important to bridge the tremendous challenge to process data and make it



Harshvardhan Bhonsle

Bio: Harshvardhan is a Student Member of the Institute of Actuaries of India and the Institute and Faculty of Actuaries (UK). A Mathematics Graduate from St. Xavier's College Mumbai, he is mainly involved in General Insurance Pricing and Reserving. He was part of a two member team working with M/S. K.A. Pandit, Consultants and Actuaries that handled an IFC Project that included the pricing of Weather Index Insurance Products in Sri Lanka.

Topic: Pricing of Weather Index Insurance Contracts: A Technical Perspective

Farmers worldwide are subjected to the vagaries of weather. In developing countries, where irrigation is not easily accessible, micro-insurance can play a crucial role in the mitigation of risks that can arise due to unforeseen weather conditions. A weather Index contract works on the basis of an Index (for eg. The monthly rainfall) and arrives at a figure for a pre-determined pay-out to the farmer that depends purely on the Index and not on the actual experience of the farmer. This mechanism reduces survey costs and moral hazard associated with traditional forms of insurance. Disadvantages of such a structure include basis risk.

Pricing of such contracts can be done using Burn Analysis and Numerical Integration amongst other methods. The pricing mechanism and practical issues that arise when dealing with weather and yield data will be discussed in detail along with issues that arise on the field level. Bridging the gap between a technical policy and a non-technical consumer forms a crucial aspect for the success of any micro-insurance product. How this can be done by keeping the policy structure as simple and affordable as possible while still incorporating all the risks associated with the weather variables is the

fundamental challenge that presents itself when designing the product.



Dr Reshmy Nairs

Dr. NAIR is Associate Professor, Administrative Staff College of India (ASCI), Hyderabad. She has graduated in Economics (Hons.) from Shri Ram College of Commerce, Delhi University and holds M. Phil & Doctorate degrees in Economics from Jawaharlal Nehru University, New Delhi. A UGC (NET) qualified academician with keen research interests, she had served as a faculty in reputed management institutes in Delhi NCR. Prior to joining ASCI, she was associated with Agriculture Insurance Company of India Ltd., wherein she handled various responsibilities in the technical, legal and operations area.

Dr. Nair has initiated capacity building, research and consultancy initiatives in the area of crop/weather insurance at ASCI. These initiatives include conceptualising, designing and directing Workshops/National Seminar on Weather Insurance/crop insurance, focused ongoing programmes on Index-based crop/weather Insurance for the insurance industry and partnering with Ministry of Agriculture, Government of India in building capacity of the senior state government officials implementing crop insurance schemes.

She has published several papers in reputed journals in the areas of crop insurance including a widely appreciated Special Issue of ASCI Journal of Management on “Weather Insurance – Addressing Risk Mitigation Needs of Weather Sensitive Industries in India”.

Topic: Crop Insurance - Past, Present and Future



Mayur Ankolekar

Bio: Mayur Ankolekar is a consulting actuary based in Mumbai. Over the past couple of years, he has worked on several aspects of microinsurance in India, Nepal, Cambodia and Vietnam, including government policy, product pricing, training and advocacy. His recent microinsurance research work involved two studies in social protection and microinsurance in Vietnam and a synthesis paper on the role of microinsurance for social protection. Mayur is a fellow of the Institute of Actuaries, UK and the Institute of Actuaries of India.

Topic: Pricing for rice crop - a Vietnamese example

He would share the technical aspects of pure risk premium in the case of rice crop developing from weather station data analysis, problem definition around rice growing critical parameters, climate change risks, fitting distributions to and understanding trends of the underlying data.