



INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty



RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



RESEARCH
PROGRAM ON
**Policies,
Institutions,
and Markets**
Led by IFPRI

Workshop: Technological Innovations and Agricultural Micro-insurance

October 13th and 14th, 2016

IFPRI - 2033 K Street, NW, Washington DC 2006 - Room 4BC

Agricultural micro-insurance products often suffer from basis risk and limited capacity to detect and perfectly compensate for individual crop losses. These shortcomings can result in insurance companies being hesitant to offer micro-insurance products and farmers being hesitant to use those products when they are available. This workshop will analyze whether successfully applying remote sensing and other technologies can help improve the design of agricultural micro-insurance products that are appealing to farmers and insurance companies alike. We aim to identify key principles and guidelines for how to apply these technologies when designing insurance products and to propose research projects to identify and fill knowledge gaps. Specific questions for discussion will include:

- Are the proposed technologies applicable in all agronomic environments, especially in subsistence systems where maximum LAI (leaf area index) is less than 1 and yield is < 1 ton/ha, or in limited input conditions (LAI between 1 and 3 and yields less than 2 tons/ha)?
- What are the other key challenges in the utilization of these technologies?
- Are these tools and techniques cost-effective?
- Are these tools and techniques relevant in developing countries in Africa south of the Sahara and South Asia?



DAY 1: October 13th 2016

8:30 AM – 9:15 AM *Breakfast and Registration*

9:15 AM – 9:30 AM *Introduction: Expected Outcomes*
Miguel Robles (IFPRI), Pramod Aggarwal (CIMMYT)

Session 1: Agricultural Micro-insurance: Challenges, Opportunities, and Limitations

Chair: Pramod Aggarwal

9:30 AM – 10:45 AM

- *Panos Varangis (World Bank)*
- *Fatou Assah (GIIF- IFC)*
- *Dan Osgood (IRI)*

10:45 AM - 11:00 AM **Coffee Break**

Session 2: Major Micro-insurance Programs

Chair: Berber Kramer

11:00 AM – 12:30 PM

- *Index-Based Livestock Insurance IBLI*
Nathaniel Jensen (Cornell University – ILRI)
- *India's NAIS, MNAIS, WBCIS*
Kolli Rao (Aon Benfield)
- *CADENA – Mexico & Catastrophic Insurance Peru*
Miguel Robles (IFPRI)
- *Index Products in the USA and Other Developed Countries*
Katie Farrin (ERS-USDA)

Open Discussion

12:30 PM - 1:30 PM **Lunch**

Session 3: Satellite Data

Chair: James Hansen

1:30 PM – 4:00 PM

- *Molly E Brown (University of Maryland)*
- *Urs Christoph Schulthess (CIMMYT)*
- *Giriraj Amarnath (IWMI)*
- *Markus Enenkel (IRI)*

Coffee Break

- *Michael Mann (George Washington University)*

Open Discussion

4:00 PM – 4:15 PM **Day 1 Conclusions and Closing Remarks**
(Miguel Robles (IFPRI))

6:30 PM – 8:00 PM **Dinner (Local restaurant)**



DAY 2: October 14th 2016

8:30 AM – 9:00 AM

Breakfast

Session 4: Unmanned Aerial Vehicles (UAV) Data

Chair: Miguel Robles

9:00 AM – 10:45 AM

*(15 minutes presentation
+ 5 minutes questions)*

- Kevin Price (AgPixel)
- Sibiry Traore (ICRISAT)
- Rabi Narayan Sahoo (IARI)
- Urs Christoph Schulthess (CIMMYT)

Open Discussion

10:45 AM - 11:00 AM

Coffee Break

Session 5: Digital Geo-referenced Photography

Chair: Dan Osgood

11:00 AM - 12:30 PM

*(15 minutes presentation
+ 5 minutes questions)*

- Eli Meelas (Boston University)
- Koen Hufkens (Harvard University)
- Markus Enenkel (IRI)
- Berber Kramer/Francisco Ceballos (IFPRI)

Open Discussion

12:30 PM - 1:30 PM

Lunch

Session 6: Crop Modelling and Big Data Analysis

Chair: Kollu Rao

1:30 PM - 2:45 PM

*(15 minutes presentation
+ 5 minutes questions)*

- Helen Greatrex (IRI)
- Pramod Aggarwal (CIMMYT)
- Claire Monteleoni (George Washington University)

Open Discussion

2:45 PM – 3:00 PM

Coffee break

Session 7: Workshop Conclusions and Closing Remarks

Chair: Pramod Aggarwal and Miguel Robles

3:00 PM – 4:15 PM

Panel Discussion: Industry and government perspective:

Application of technologies

Shibendu S. Ray

(Mahalanobis National Crop Forecast Centre)

Sudhir Kumar Goel

(Additional Chief Secretary Agriculture, Maharashtra – India)

Malay Kumar Poddar

(Agricultural insurance Company of India)

Joshua Madson

(Aon Benfield - US)

General discussion

4:15 PM – 4:30 PM

Closing remarks Pramod Aggarwal (CIMMYT), Miguel Robles (IFPRI)