WHAT ARE THE INFLUENCING FACTORS OF YIELD LOSSES?

1. Weather attributable factors
   1. Water supply
   2. Temperature
   3. Solar radiation

2. Non-weather (idiosyncratic) factors
   1. Agronomic management and access to inputs
   2. Knowledge and education
   3. Subsidies and prices
INSURANCE SOLUTIONS AGAINST CROP YIELD LOSSES

- Coverage of the weather-related perils
- Idiosyncratic risks are uncovered
- Index based calculation of claims
- Minimization of the basic risk
  - Spatial basic risk
  - Product design effect basic risk
INSURANCE SOLUTIONS AGAINST CROP YIELD LOSSES

• Coverage of the weather-related perils
• Idiosyncratic risks are uncovered
• Index based calculation of claims
• Minimization of the basic risk
  • Spatial basic risk
  • Product design effect basic risk

By using crop models and remote sensing

Christoph Gornott
Insurance Solutions Against Crop Yield Losses

- Coverage of the weather-related perils
- Idiosyncratic risks are uncovered
- Index based calculation of claims (Coping with systematic risk)
- Minimization of the basic risk
  - Spatial basic risk
  - Product design effect basic risk
INSURANCE SOLUTIONS AGAINST CROP YIELD LOSSES

- Coverage of the weather-related perils
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Christoph Gornott
**Insurance Solutions against Crop Yield Losses**

- Coverage of the weather-related perils
- Idiosyncratic risks are uncovered
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- Minimization of the basic risk
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(Better coverage of actual yield losses than Weather Index Insurances)
Weather-Related Yield Losses in Comparison to All Yield Losses

Only $\frac{1}{3}$ of the yield variability is attributable to weather
CONCLUSION

• Extreme yield losses are captured by our crop models
• Development of an area-based micro insurance scheme
• Strong collaboration with the Munich Re
• Integration of local partners from Sub-Saharan Africa
CLIMATE RISK INSURANCE AS AN ADAPTATION TOOL FOR THE MOST VULNERABLE

Presenters
Christoph Gornott (PIK)
Laura Schäfer (MCII)

Panelists
Hans Joachim Schellnhuber (PIK)
Peter Hüppe (MCII, Munich Re)
Branko Wehnert (GIZ)
Karsten Löffler (Allianz Climate Solutions)

Moderator: Kira Vinke (PIK)

EU Pavilion, Blue zone – November, 16th 10:30-12:00