Satellite based index insurance in agriculture

Lessons learned from Scaling Up Micro-insurance in Africa
G4AW SUM-Africa

17-04-2019, Ouagadougou, Burkina Faso

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EARS Earth Environment Monitoring BV

Founded 1977 in Delft, The Netherlands

Satellite data for climate water and food

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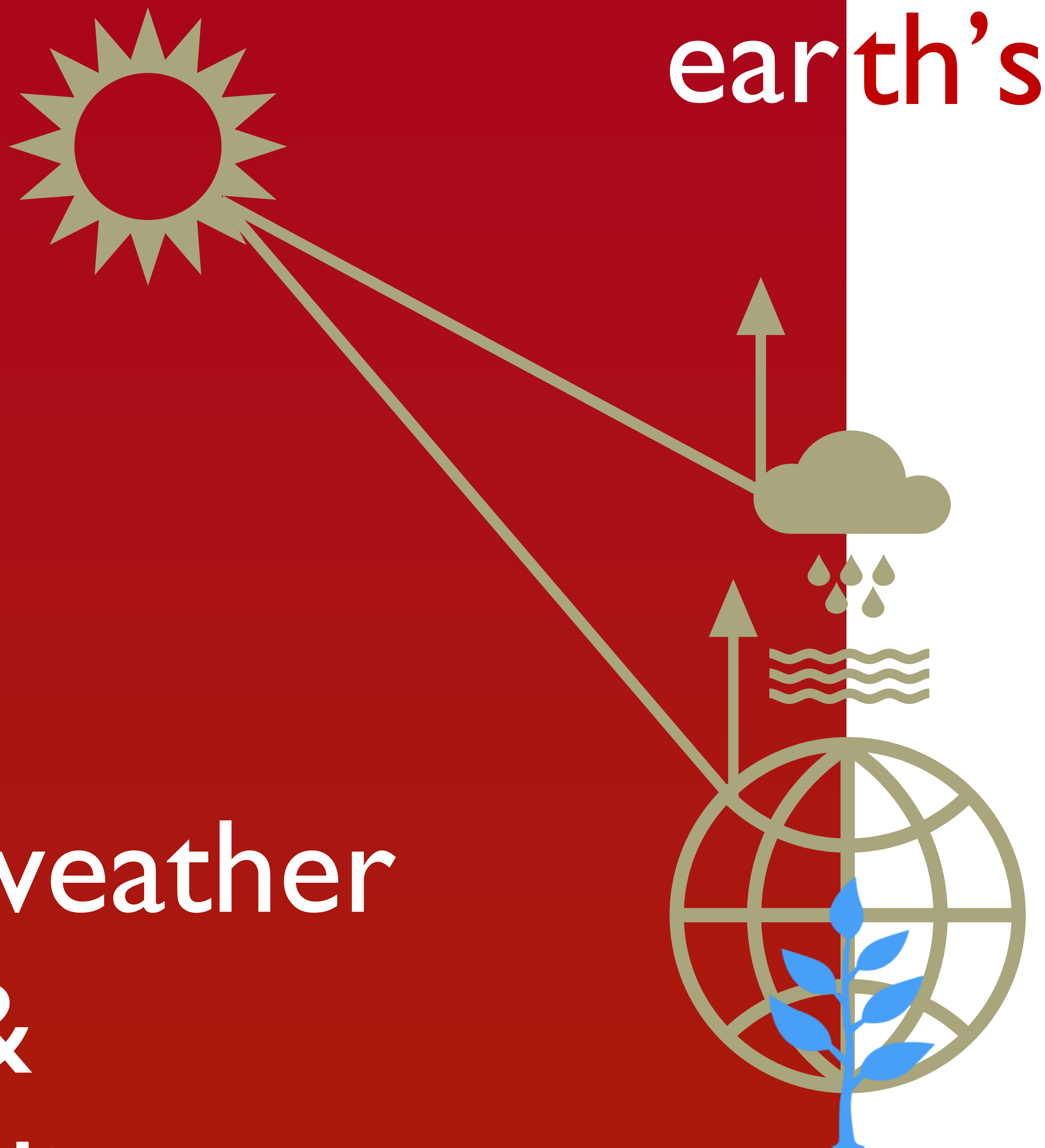
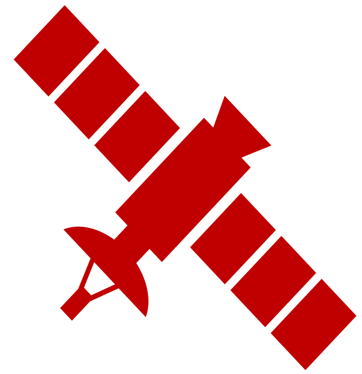
earth's





weather

&

climate

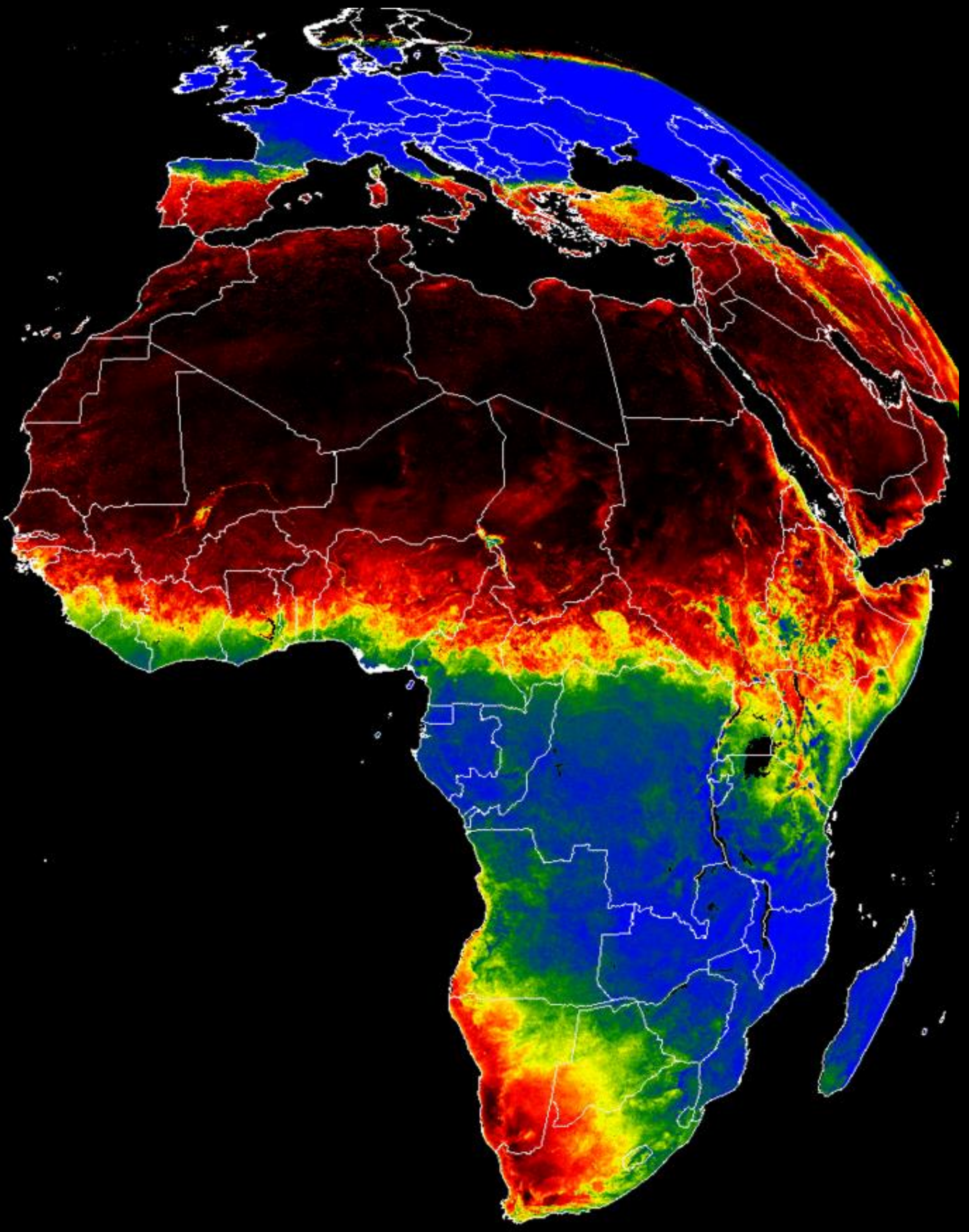
measured

from space

to monitor

crop growth

From over 500,000 hourly satellite images since 1982 …



… to reliable value added information for agriculture

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experience

2018

+100'000 Producers

10 Crops

5 Countries

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contents

- Risk in Agriculture
- Index insurance
- SUM-Africa project
- Successes & Lesson learned
- Planet Guarantee
- Discussion

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High risks in Agriculture …

- **Open roof industry – prone to weather shocks**
- **Risk mitigation in agriculture is always necessary!**

Manageable risks

Informed decision making
Best practice
Protective measures

Unmanageable risks

Insurance!

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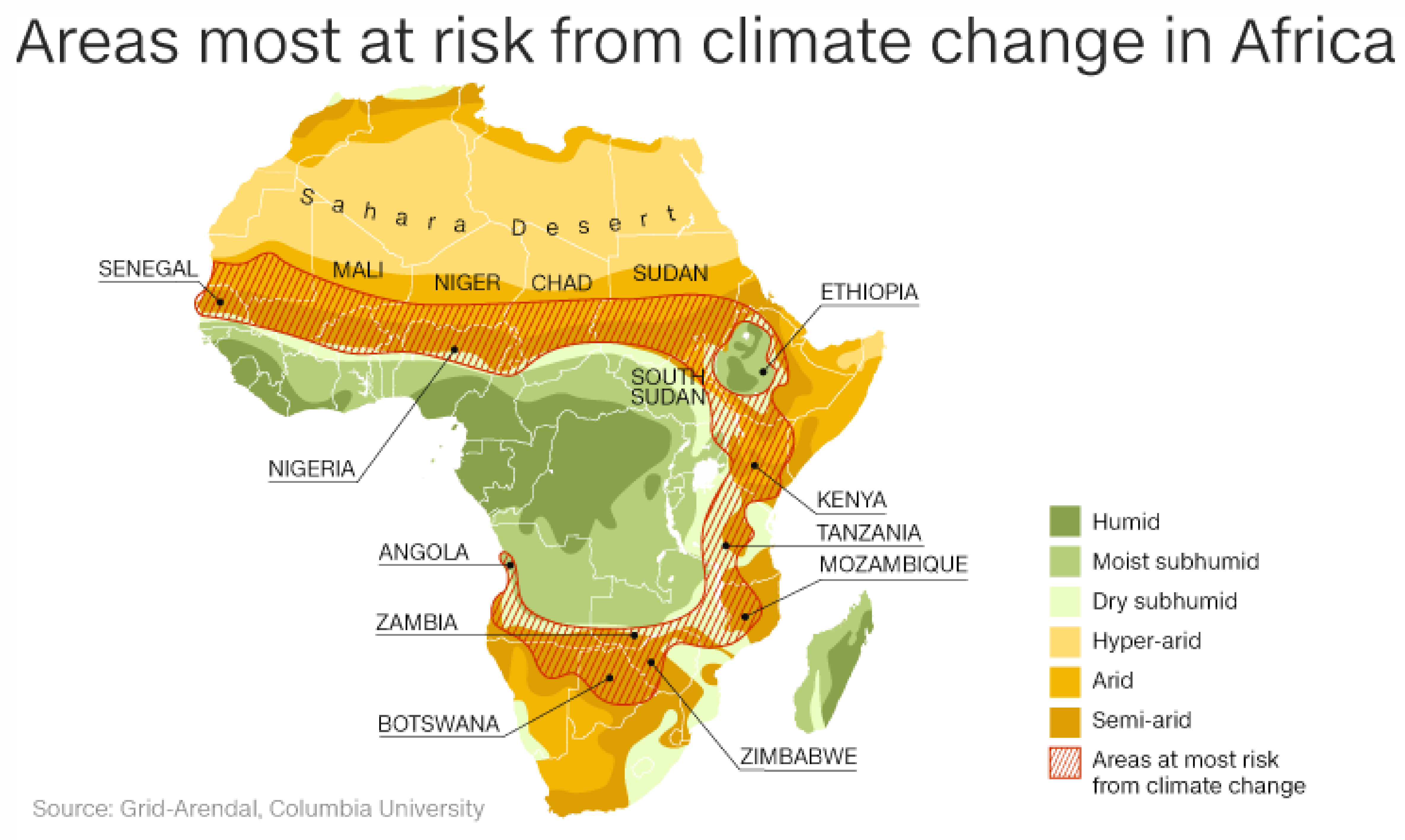
…in a changing climate



INDEX INSURANCE

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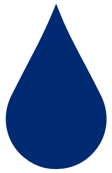
what is it?

Insuring against the cause of crop loss



rainfall
soil available water
evapotranspiration
temperature
sun shine
other...

not crop loss itself

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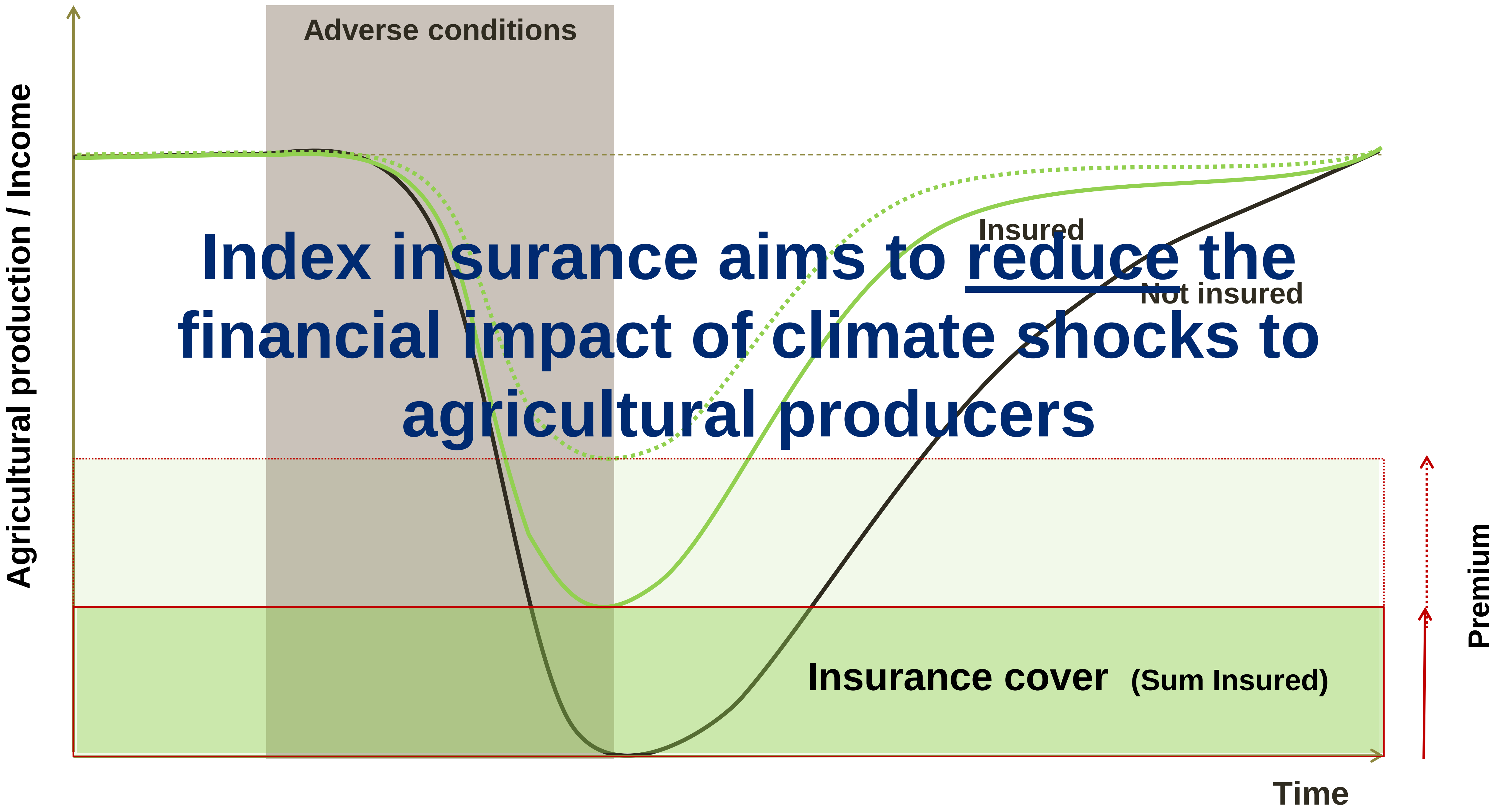
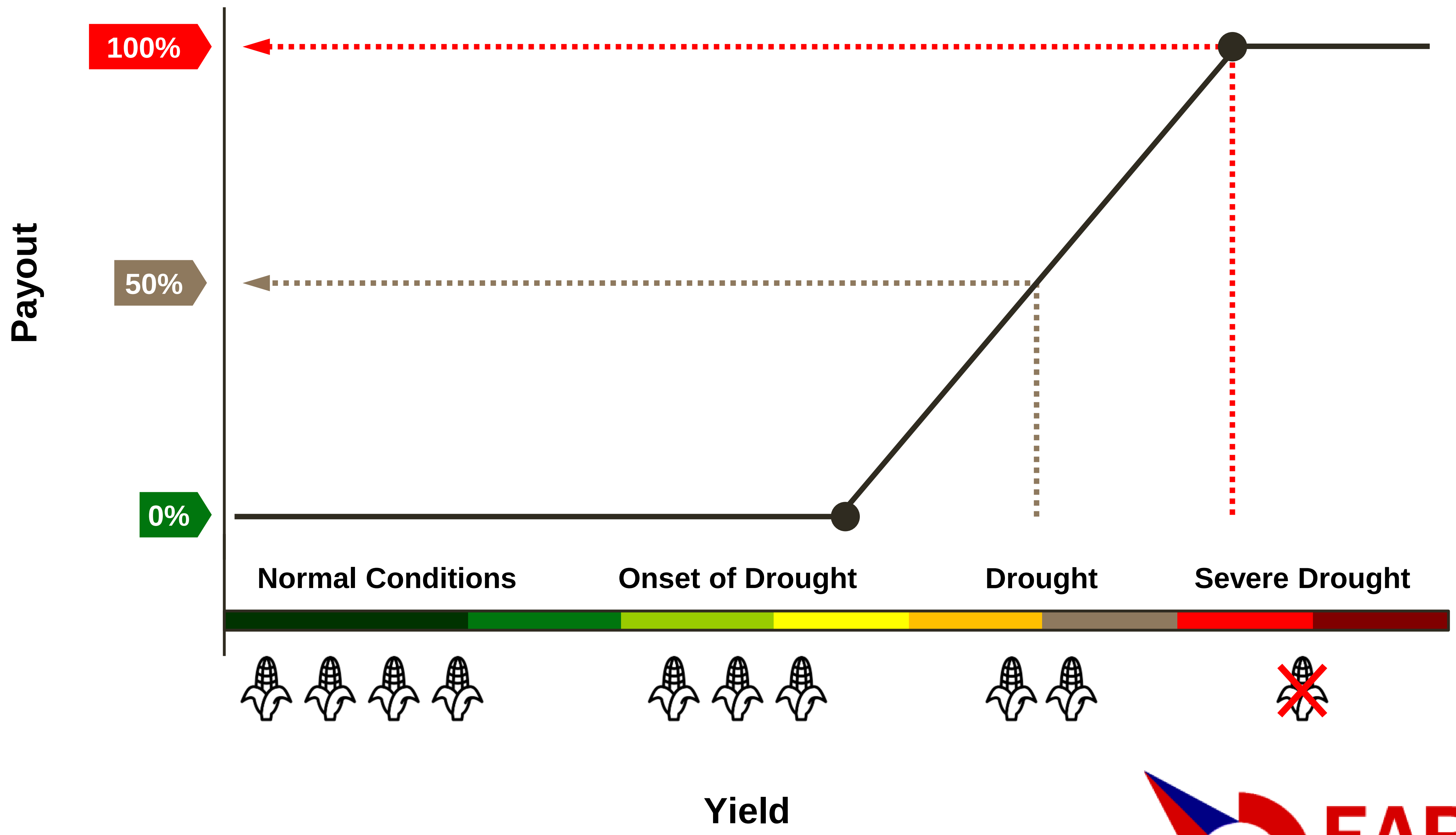
what does it do?



Index insurance aims to <u>reduce</u> the financial impact of climate shocks to agricultural producers

how does it work?



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SUM-Africa

Funded by: The Netherlands Ministry of Foreign Affairs via the G4AW programme by the Netherlands Space Agency

Lead Partner: EARS Earth Environment Monitoring

Consortium:

Mali: PlaNet Guarantee, Agence Nationale de la Meteorologie, Coprocuma Mali Sud, Wageningen UR

Uganda: Agriculture Reinsurance Consultants, Agro Consortium (AIC), Wageningen UR, NUCAFE Ltd, Ministry of Agriculture Animal Industries and Fisheries

Services: Satellite based Index Insurance

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SUM-Africa

Project period:	From 09-2014 to 08-2018 (4 years, initially 3 years)	
Commodities:	Uganda:	Maize, Beans, Coffee, Potatoes, Generic
	Mali:	Maize, Sesame, Cotton, Generic
Coverage:	Crop loss caused by drought	
Target area:	Approximately 4.5 M ha (FAOstat 2013; Countrystat, 2013; infotrade, 2015)	
Target group:	Estimated 3.75M farmer households (2015)	

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SUM-Africa

Main Objectives:

300’000 farmers insured after 4 years

Sustainable business model for continued service provision after project

Expectations:

Improved access to finance / increased investment in inputs / increased production

Reduced vulnerability to climate related shocks

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Planned Strategy

- Crop specific index development for key commodities
- Build institutional and regulatory support for index insurance and data
- Build network of distribution partners / aggregators
- Awareness building and sales through distribution channels
- Tailor insurance products to needs of distributors and end-users.
- Continued scaling with repeat customers and expanding distributors network.

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Key achievements

Uganda

- ✓ Insurance industry centrally organized for agriculture.
- ✓ Supportive regulatory framework and acceptance of index products and data.
- ✓ Government support in the form of 50% premium subsidy for 5 years.
- ✓ Policy management system to facilitate efficient administration

- ✓ Large commercial banks insuring agricultural credit portfolio
- ✓ Trusted farmer cooperatives offering drought cover to members
- ✓ Continuous outreach through distributor network and weekly radio show

- ✓ 70’000 insured farmers in 2018 (Forecast 120’000 for 2019)
- ✓ Commercial operations in effect and guaranteed until 2021.

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Key achievements

Mali

- ✓ Supportive regulatory framework and acceptance of index products and data (CIMA Book 7 on micro-insurance), accepted at Mali level with validation of data, but no financially supportive measures realised
- ✓ Large scale awareness raising activities via workshops and radio broadcasts
- ✓ Farmer cooperatives offering drought cover to members
- ✓ MFI's interested to bundle loans with drought coverage
- ✓ Discussions with MNO to offer insurance mobile subscription platform.
- ✓ Input providers offering mandatory insurance on bulk sales.

- ✓ Annual uptake up to 5'000 farmers

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Challenges

- Financial literacy and understanding of insurance principles
- Bridging the last mile

- Trust in insurance
- Trust in "black box" data and technology
- Single peril solution only
- Standalone insurance coverage is too limited and increases

- Bundling is necessary, but added complexity requires more time and effort
- Translating complex product to understandable but realistic proposition
- Effective training and awareness raising is expensive, difficult to scale

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Challenges

- Mali is one the least developed insurance markets in Africa
- Cost of insurance, no tax benefits
- Limited access to credit and inputs for distributors
  - Insurance coverage was bundled and depended on obtaining credit and inputs
- General business climate, limitations on access to rural areas as a results of security issues (eg. ban on use of motorcycles and pickups in 2018)
  - This affects both project partner operations and potential distributors.

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PlaNet Guarantee
PlaNet Finance Group

MALI METEO

Thank you

COPROCUMA I MALI

NUCAFE

MINISTRY OF AGRICULTURE ANIMAL INDUSTRY & FISHERIES
REPUBLIC OF UGANDA

Agro Consortium

AGRICULTURE REINSURANCE CONSULTANTS

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Questions and Remarks

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Statements for discussion

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“ Government support is always needed to scale up agricultural insurance

“A fair approach to *de-risking* agriculture is a cost-sharing solution that include the commercial value-chain stakeholders

“ Agricultural lenders should make insurance coverage mandatory

“ If a geo-data based value adding service cannot be made commercially viable, it should not receive continued support

“ What is necessary to increase uptake, specifically for young entrepeneurs who are the future of agriculture and for women are important producers in many value chains?