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# A2ii-IAIS Public Dialogue: Index-based Insurance

25 March 2021



Dialogues

# Speakers

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**A2ii Moderator**  
Hannah Grant

Head of Secretariat,  
Access to Insurance  
Initiative (A2ii)



**IAIS**  
Conor  
Donaldson

Head of Implementation,  
IAIS Secretariat



**A2ii**  
Regina Simoes

Regional  
coordinator for  
Latin America, A2ii



**IRA-Uganda**  
Cynthia Ayero  
Nsubuga

Inspection Officer,  
Non-Life Insurance



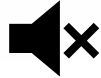
**ACA, Indonesia**  
Jakub Nugraha

Head of Microinsurance and  
Agriculture Insurance  
Department, Asuransi  
Central Asia (ACA)

# Housekeeping rules



This Dialogue will be **RECORDED**



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**“RAISE HAND”** when wishing to speak or ask a question



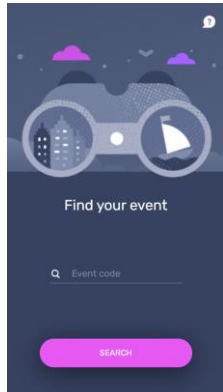
For any technical issues, contact A2ii Secretariat via the chat function or via e-mail at ([dialogues@a2ii.org](mailto:dialogues@a2ii.org))

# Audio Translation / Traduction Audio

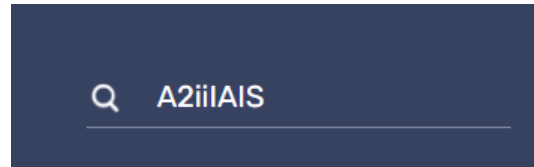
## 1. Download "Interactio" Application / Télécharger l'Application "Interactio"



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## 2. Enter the event code: **A2iiIAIS** Entrez le code de l'événement: **A2iiIAIS**



## 3. Select your language Choisissez votre langue

# Index-based Insurance A2ii –IAIS Public Dialogue

Results and findings of the A2ii Index-based Insurance Survey

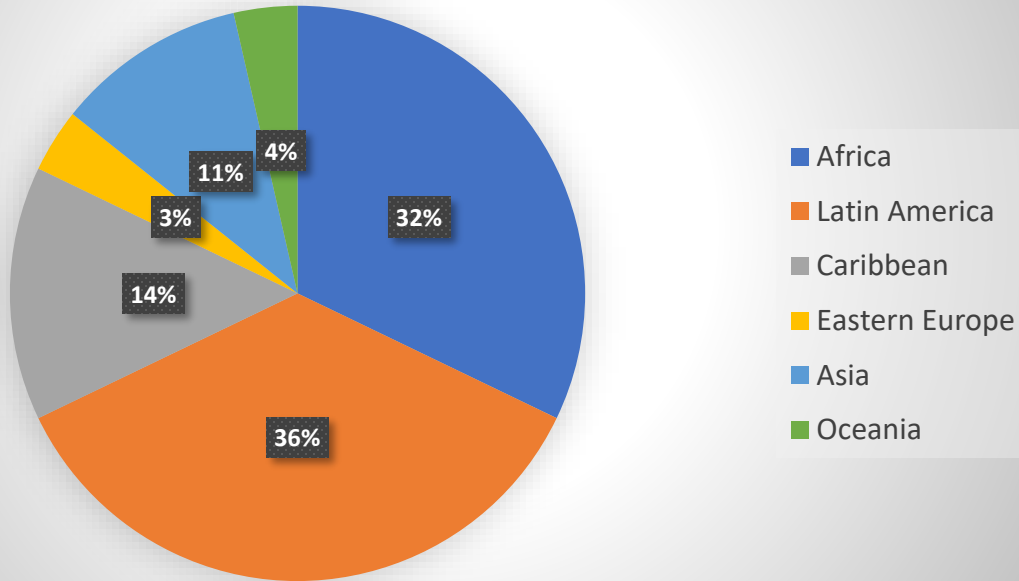
Regina Simões | 25 March 2021



# Dialogues

# Participants in the Survey

Supervisors who participated in the survey by region (%)



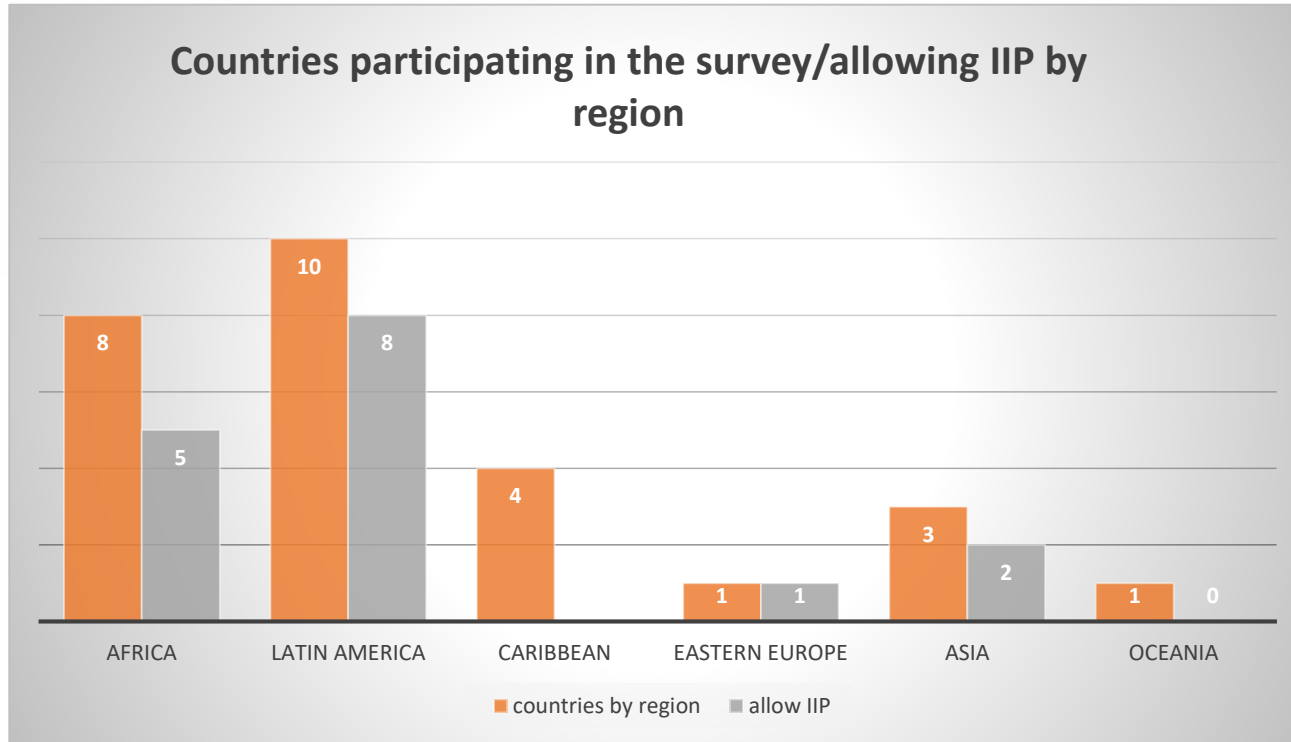
## Supervisors

- 28 Supervisors from 27 countries
- 25 from EMDE countries

## Industry

- 11 Industry Representatives
- Insurers and Reinsurers, Consultants and a Non-Profit Organisation

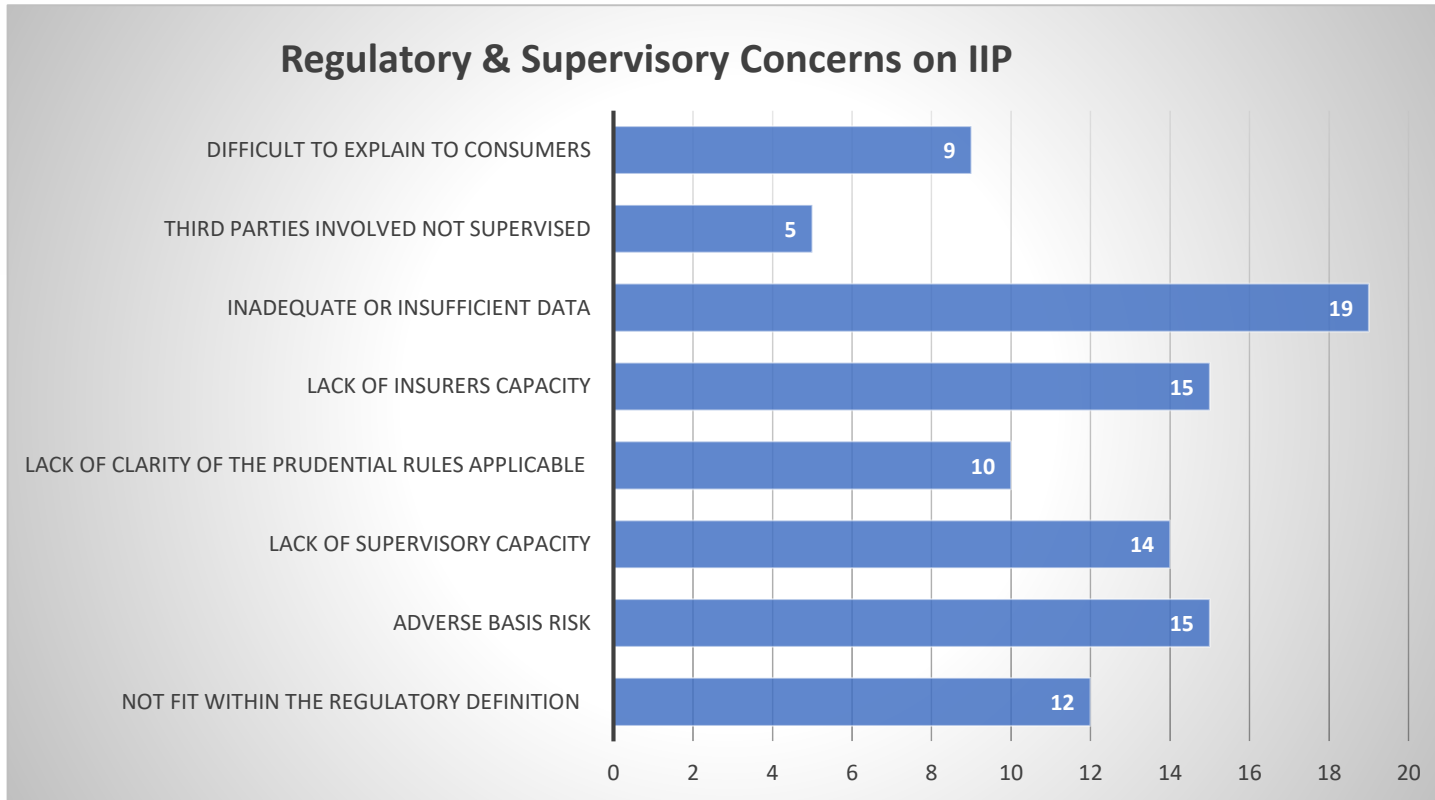
# Countries allowing Index-Based Insurance



- 16 Jurisdictions allow or raise no barriers to index-based insurance



# Regulatory & Supervisory Concerns



# Regulatory Approaches

**I. Specific laws and/or regulations** – legal security

e.g., Argentina, Puerto Rico and Uganda

**II. Legal opinion** - based on the “insurable interest” at the date of contracting

e.g., Costa Rica and Brazil

**III. Pilot or/and Regulatory Sandbox** - as an exception to the rules in force, allowing to test the product's effectiveness in a controlled environment

e.g., Mozambique and Kenya

# Facilitators and Barriers



## Barriers

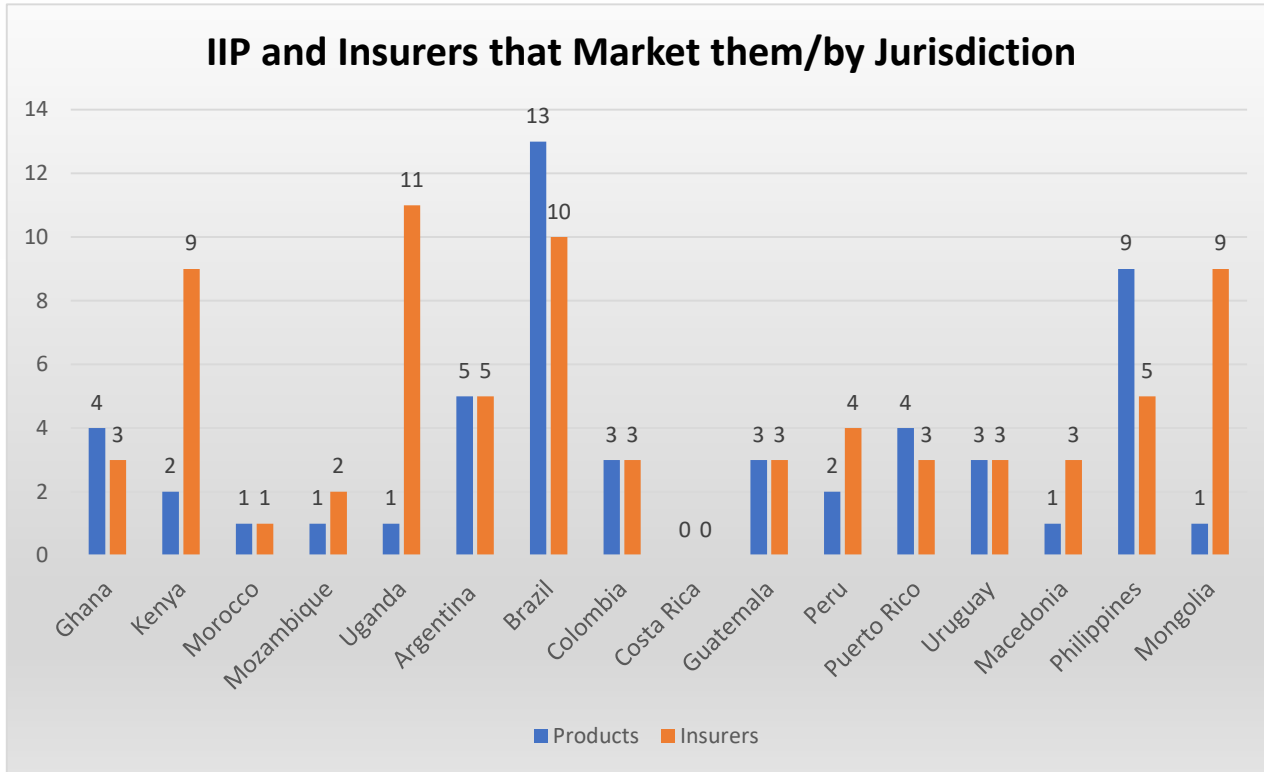
- absence of index-based insurance regulation
- lack of understanding by supervisors
- shortage of data
- USA insurers - comply with different requirements in each of the fifty US states



## Facilitators

- regulatory sandboxes/innovation hubs
- collaboration between supervisors & industry - identify potential undesired results/adverse effects
- allow corrective actions - both before and after product implementation
- flexible regulation - stimulate development of new products
- limited training requirements for distribution channels
- take into account technological developments
- agricultural census
- ample discussions among stakeholders - ensuring current regulations are construed favourably
- supervisors as facilitators

# Products – Characteristics and Scope (1)



- 53 Products marketed in 16 Jurisdictions
- Offered by 74 Insurers
- More Insurers than Products – some programmes structured in the form of consortia

# Products – Characteristics and Scope (2)

## Micro level

- Most products focus on the agriculture and livestock sectors - particularly **small farmers**
- Insurance for **MSMEs, low-income families, and other vulnerable/underserved** Segments
- Insurance products for **more sophisticated customers**

## Meso level

- Agribusiness, banks and MFIs

**Alliances with** governments and partners, such as aggregators, development agencies and TSPs (InsurTechs)

## Distribution channels

- Traditional intermediaries
- Farmer associations and cooperatives, savings and credit cooperative societies (SACCOs) and other aggregators
- Commercial and rural banks
- Retail stores and internet platforms

## Business models

- Generally on an **embedded basis**:
  - tied to inputs and distributed by agribusiness traders
  - tied sales involving other financial services rendered by banks and MFIs
- More developed economies – traditional intermediaries and brokers

# Products – Characteristics and Scope (3)

**Broader Range of Products** - new/more complex/more specific indexes

**Increase in Products Covering Asset Risks**  
more “area-yield” index-based insurance products

**Biological Coverage** - pests and diseases on agriculture

**Fire** - both agriculture and property

**Health Microinsurance** - number of platelets (blood cells) as an index

**Coverage for Input Costs for Germination/Full Crop Cycle** - linked to seed purchases

## More Sophisticated Customers

- Net losses caused by drought for hydro-power plant
- Damage risks for temperature-sensitive cargoes (shippers and consignees, transportation and logistics companies)
- Wind and flood risks for large corporations
- Construction risks from delays due to rainfall

# Final message

The speed with which index-based insurance is evolving raises the need to **continuously monitor products, as well as their value and impact on consumers**

This requires adequate training by all stakeholders, especially supervisors, so that they can face new challenges to come

# Thank you.

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INSURANCE REGULATORY  
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# AGRICULTURE INDEX INSURANCE IN UGANDA

CYNTHIA AYERO NSUBUGA

INSPECTION OFFICER, NON-LIFE INSURANCE



## Uganda's regulatory and supervisory approach for index-based insurance

- 2016 – weather index based insurance with support from the Government offering an insurance subsidy was launched
- 2017 – Insurance Act 2017 was ratified and development of regulations commenced
- 2020 – The Index Contracts Regulations were released



## The Index Contracts Regulations 2020

### Key areas

- Product approval process – which must be based on an index and an alternative methodology for verification
- Data supporting the index should be sufficient and adequate
- Determinations for payment should be timely
- Indexes should be periodically reviewed

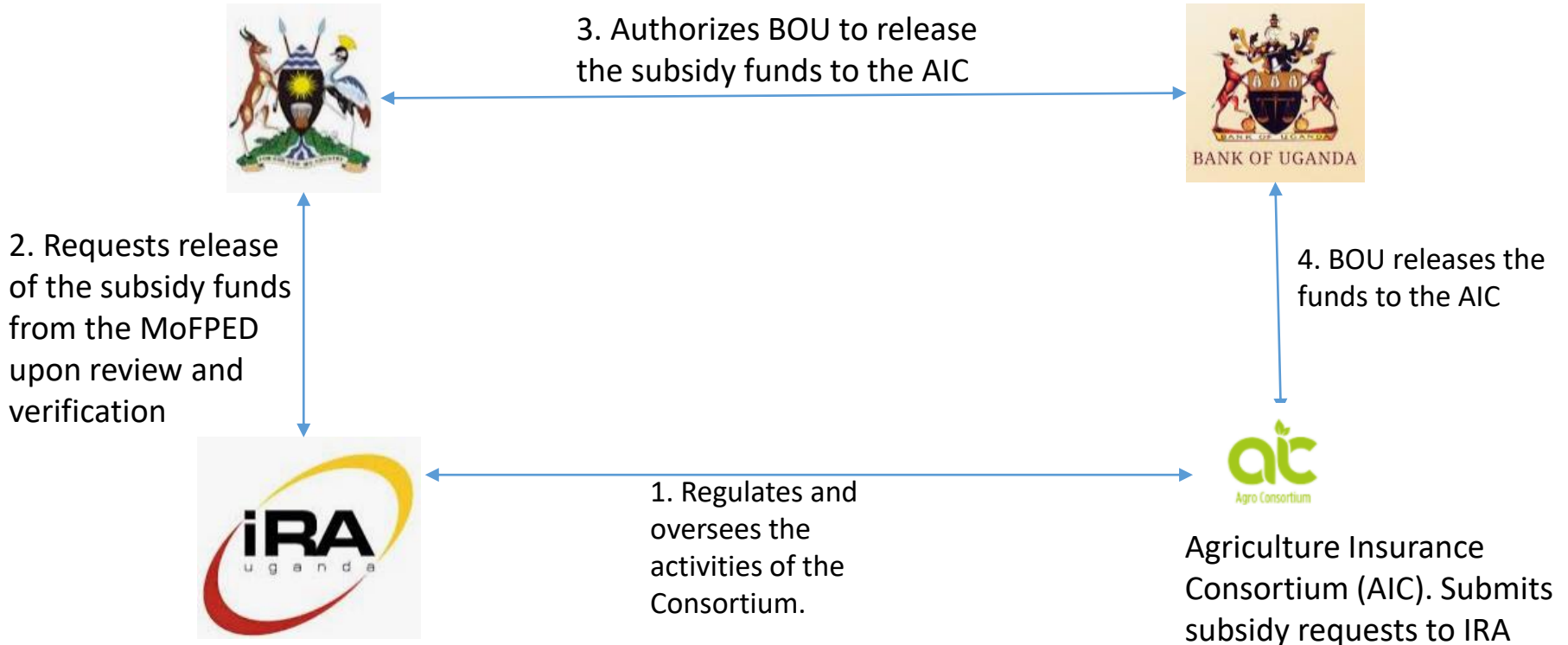
## Weather and Area Yield Index Insurance (Crop Index)

- Pilot started 1<sup>st</sup> July 2016
- Public Private Partnership between the Government of Uganda and the Uganda Insurers Association
- Currently 11 insurers are part of the co-insurance pool
- Reinsurance is led by Swiss Re
- Climate technology, E-Leaf provided through the SUM Africa Project with support from the Dutch Space Organization

## Objectives for the Agriculture index insurance

- Entice financial institutions to lend to farmers
- Changing climatic conditions
- Address low production by farmers
- High interest rates on agriculture loans

# Structure of the Government Subsidy



## The target market(s) for the index-insurance products

Farmer Category	Either by Number of Acreage	Either by Annual Income
Small scale	Less than 5 acres	Less than 20M annual income
Large scale	5 acres and more	More than 20M annual Income

Selected farm enterprises as per Agricultural Sector Strategic Plan 2015/16- 2019/20 & Uganda National Development plan 11;

### Crops

Coffee, maize, beans, rice, cotton, bananas, oil seeds, fruit trees and tea

### Livestock

Cattle (beef and diary), poultry, pigs and fish

S/N		Item	Number/Qty
1.	Small scale	Poultry	500 – 2000
	Large scale		2000 and above
2.	Small scale	Cattle	1-30
	Large Scale		30 and above
3.	Small scale	Pigs	1 -50
	Large Scale		50 and above
4		Fish	Mostly participants are large scale

Index insurance is only for small holder farmers.

Over 150,000 have benefited from the scheme



# KPIs for the subsidy Scheme (2016 - 2020)

KPI	Base	Target	Actual
Grow insured agriculture loans	Nil	US\$. 2,702,703	US\$. 247,622,528
Increase in Agriculture Insurance premiums	US\$ 4. 97,506	US\$ 270,270,270	US\$ 8,522,681
Increase the number of insured farmers.	5,800 farmers	45,000 farmers	196,991 farmers
Increase in the number of farmer interface	14,850 farmers	100,000 farmers	6,300,000
Increase in agriculture credit lending	BOU yet to advise	by 1%	BOU yet to advise
Increase in the income generated by the entity insured by the farmer	Parameter yet to be properly defined	by 10%	-





## The distribution channels

- **Banks, MFIs and SACCOs – offering agriculture loans**

Centenary Bank, dfcu Bank, Pride Microfinance Ltd, United Bank of Africa, Equity bank, Opportunity bank, Post Bank, Finance Trust Bank, Equity Bank, Ecumenical Church Loan Fund Ug. Ltd. (ECLOF)

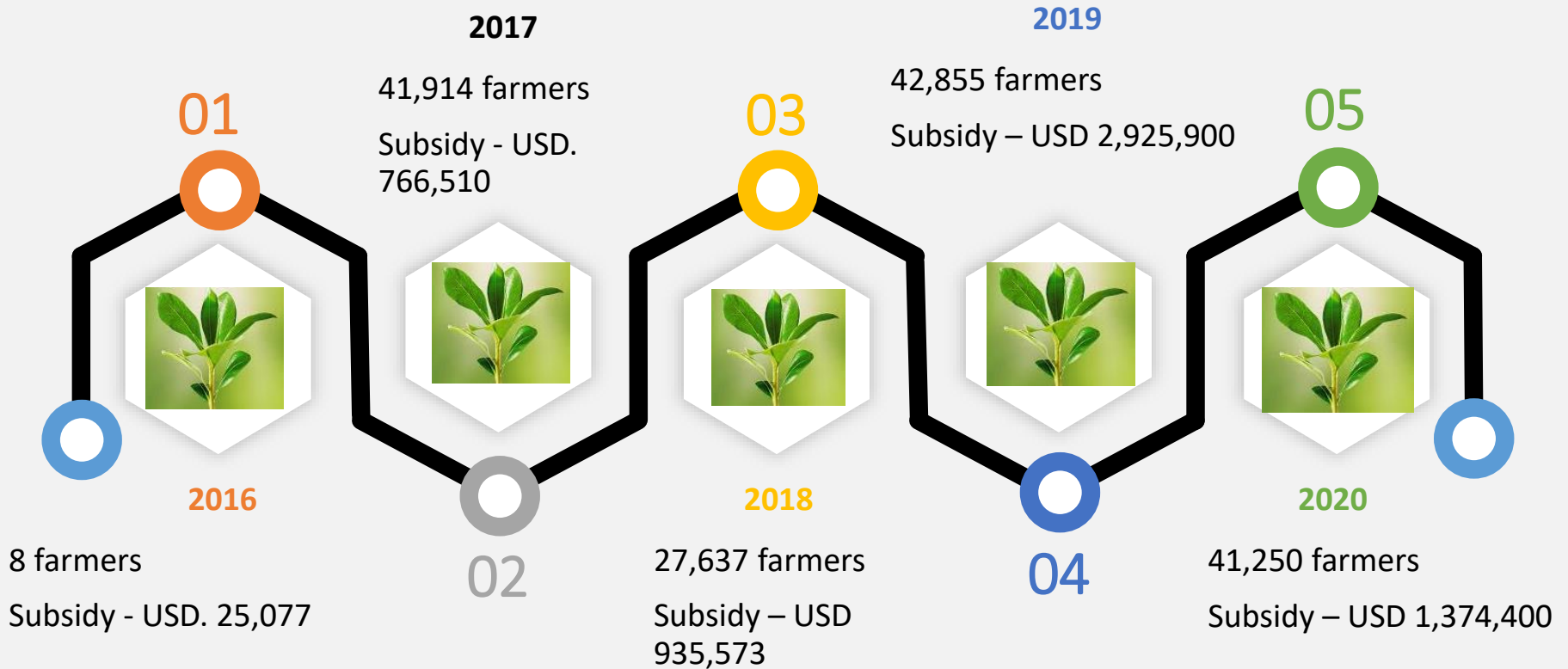
- **Fintechs – using USSD platforms web and mobile applications**

One-acre fund Inc., Ensibuuko and Mkulima

- **Large scale farmers – Nucafe, Victoria Seeds e.t.c**

- **Cooperatives – Yetu Dairy and Ranchers Financial Services**

# Agriculture insurance subsidy pilot





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# The End

Thank you

# Health Index and Agriculture Index Insurance for Sustainable Development Goals - A Case from Indonesia -



Thursday, March 25<sup>th</sup> 2021

**Jakub Nugraha**

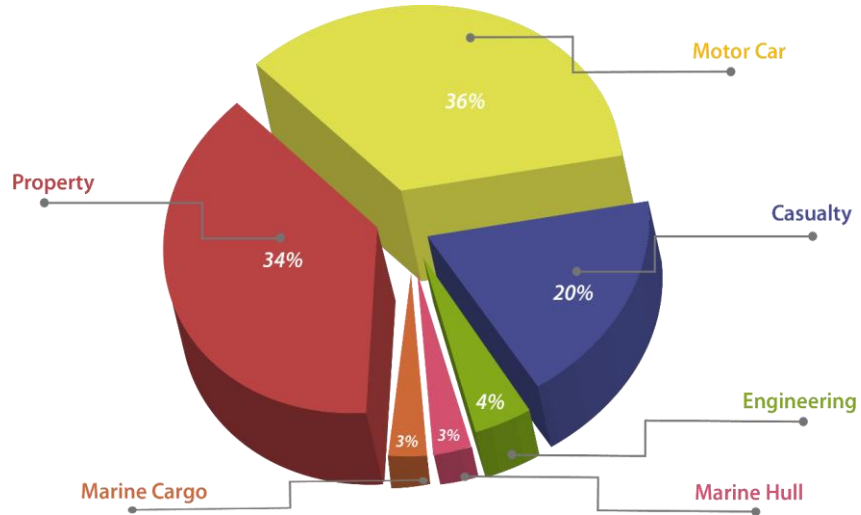
Head of Microinsurance

Asuransi Central Asia (ACA)

Indonesia

## ACA in Brief

- Established in 29 August 1956 (Maskapai Asuransi Oriental NV) → 05 August 1958 become PT Asuransi Central Asia (ACA).
- 65 branch offices all over Indonesia with 1,500 employees.



in million USD

LOB	2015	2016	2017	2018	2019
Property	770	808	664	771	716
Engineering	51	41	46	93	91
Marine Cargo	65	52	57	54	71
Marine Hull	71	54	53	61	54
Motor Car	718	730	758	837	774
Casualty	411	392	378	409	421
<b>Total</b>	<b>2,086</b>	<b>2,076</b>	<b>1,956</b>	<b>2,226</b>	<b>2,128</b>

Year	Sector	Insurance scheme	Partner
2010 - today	Health	<b>Health Index</b> – Dengue Fever Insurance	Convenient store, post office (distribution channel)
2015 – today	Agriculture	<b>Indemnity scheme</b> based on area yield for corn / maize	International NGO, off-takers, rural bank, seed company (financial literacy, education, distribution channel) → ecosystem of sustainable agriculture
2017	Agriculture	<b>Weather index scheme</b> for paddy = one trigger only → accumulation of 100 days rainfall	JV insurance (co-insurance), Farmers group (distribution channel)
2018 – 2019	Agriculture	<b>Weather index scheme</b> for paddy = triggers at the end of vegetative phase (48 <sup>th</sup> day), reproductive phase (74 <sup>th</sup> day), ripening phase (100 <sup>th</sup> day) <b>Addition service for farmers</b> → applied Integrated Risk Management to cope with climate change	International NGO (actuarial, marketing, education) Micro Finance Institution (distribution channel)
2021	Agriculture	<b>Soil moisture index</b> for cocoa farmers = one trigger for Soil Moisture Deficit cover (end of July) and one trigger for Soil Moisture Excess cover (end of September).	<ul style="list-style-type: none"> <li>Insurance Association, off-taker, international finance institution</li> </ul>
2021	Agriculture	<b>Indemnity scheme</b> for rice, corn, yawn, cassava, horticulture → an ecosystem of sustainable agriculture based on Integrated Risk Management to cope with climate change	Farmers group, off-taker, MFI, agriculture input

Content	Note of Health Index Insurance
First issue	2010 – Dengue Fever Insurance
Parameter/trigger	Thrombocytopenia or platelet count < 100.000 cubic millimeter
Premium	Cash before cover for one unit = <ol style="list-style-type: none"> <li>1. USD 3.5 with lump sum benefit of USD 140 (12 months period)</li> <li>2. USD 0.7 with lump sum benefit of USD 70 (3 months period)</li> </ol>
Registration	Activate PIN number via SMS texting > scratch card (in 2010) > electronic code (since 2017)
Claim process	<ul style="list-style-type: none"> <li>• Claim report via SMS</li> <li>• Claim documents =               <ol style="list-style-type: none"> <li>1. blood test result which indicate the number of thrombocytopenia,</li> <li>2. doctor’s statement that the customer is suspected suffer from dengue fever.</li> </ol> </li> <li>• Claim payment = within 10 working days upon approval</li> </ul>
Target	Individual, mostly low income society
<b>Distribution channel</b>	<ul style="list-style-type: none"> <li>• Direct marketing</li> <li>• Convenience store</li> <li>• Post office</li> </ul>
Main challenges	<ul style="list-style-type: none"> <li>• Distribution channel</li> <li>• Fraudulent claim especially those who buy the product via e-commerce platform</li> </ul>

Content	Note of Agriculture Index Insurance (1/2)																																																																																																												
Commodity	2017 –Weather Index Microinsurance for traditional rice farmers in rural area																																																																																																												
Coverage - trigger	<ul style="list-style-type: none"> <li>• Lack of rainfall during:                             <ul style="list-style-type: none"> <li>✓ vegetative phase (48 days) = 200 mm of rainfall</li> <li>✓ reproductive phase (26 days) = 163 mm of rainfall</li> <li>✓ ripening phase (26 days) = 87 mm of rainfall</li> </ul> </li> </ul>																																																																																																												
Premium	Depends of the planting window, from very early until late, i.e. 8.0 % - 2.5 % of sum insured																																																																																																												
Benefit payout	At the end of each phase	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="799 473 1006 503">Vegetative Phase</th> <th colspan="2" data-bbox="1006 473 1219 503">Reproductive Phase</th> <th colspan="2" data-bbox="1219 473 1431 503">Ripening Phase</th> </tr> <tr> <th data-bbox="799 503 1006 532">USD</th> <th data-bbox="1006 503 1219 532">Precipitation</th> <th data-bbox="1006 503 1219 532">USD</th> <th data-bbox="1219 503 1431 532">Precipitation</th> <th data-bbox="1219 503 1431 532">USD</th> <th data-bbox="1431 503 1638 532">Precipitation</th> </tr> </thead> <tbody> <tr> <td data-bbox="799 532 1006 562">7</td> <td data-bbox="1006 532 1219 562">200 - 198 mm</td> <td data-bbox="1006 532 1219 562">53</td> <td data-bbox="1219 532 1431 562">163 - 161 mm</td> <td data-bbox="1219 532 1431 562">7</td> <td data-bbox="1431 532 1638 562">87 - 85 mm</td> </tr> <tr> <td data-bbox="799 562 1006 591">14</td> <td data-bbox="1006 562 1219 591">197 - 195 mm</td> <td data-bbox="1006 562 1219 591">63</td> <td data-bbox="1219 562 1431 591">160 - 158 mm</td> <td data-bbox="1219 562 1431 591">14</td> <td data-bbox="1431 562 1638 591">84 - 83 mm</td> </tr> <tr> <td data-bbox="799 591 1006 621">21</td> <td data-bbox="1006 591 1219 621">194 - 192 mm</td> <td data-bbox="1006 591 1219 621">74</td> <td data-bbox="1219 591 1431 621">157 - 155 mm</td> <td data-bbox="1219 591 1431 621">21</td> <td data-bbox="1431 591 1638 621">82 - 80 mm</td> </tr> <tr> <td colspan="2" data-bbox="799 621 1006 650">.....</td> <td colspan="2" data-bbox="1006 621 1219 650">.....</td> <td colspan="2" data-bbox="1219 621 1431 650">.....</td> </tr> <tr> <td data-bbox="799 650 1006 680">98</td> <td data-bbox="1006 650 1219 680">165 - 163 mm</td> <td data-bbox="1006 650 1219 680">284</td> <td data-bbox="1219 650 1431 680">88 - 86 mm</td> <td data-bbox="1219 650 1431 680">231</td> <td data-bbox="1431 650 1638 680">7 - 5 mm</td> </tr> <tr> <td data-bbox="799 680 1006 709">105</td> <td data-bbox="1006 680 1219 709">162 - 160 mm</td> <td data-bbox="1006 680 1219 709">294</td> <td data-bbox="1219 680 1431 709">85 - 83 mm</td> <td data-bbox="1219 680 1431 709">238</td> <td data-bbox="1431 680 1638 709">4 - 3 mm</td> </tr> <tr> <td data-bbox="799 709 1006 739">112</td> <td data-bbox="1006 709 1219 739">159 - 158 mm</td> <td data-bbox="1006 709 1219 739">305</td> <td data-bbox="1219 709 1431 739">82 - 80 mm</td> <td data-bbox="1219 709 1431 739">245</td> <td data-bbox="1431 709 1638 739">2 - 0 mm</td> </tr> <tr> <td colspan="2" data-bbox="799 739 1006 768">.....</td> <td colspan="2" data-bbox="1006 739 1219 768">.....</td> <td colspan="2" data-bbox="1219 739 1431 768">.....</td> </tr> <tr> <td data-bbox="799 768 1006 798">301</td> <td data-bbox="1006 768 1219 798">87 - 86 mm</td> <td data-bbox="1006 768 1219 798">578</td> <td data-bbox="1219 768 1431 798">7 - 5 mm</td> <td colspan="2" data-bbox="1219 768 1638 798"></td> </tr> <tr> <td data-bbox="799 798 1006 827">308</td> <td data-bbox="1006 798 1219 827">85 - 83 mm</td> <td data-bbox="1006 798 1219 827">588</td> <td data-bbox="1219 798 1431 827">4 - 2 mm</td> <td colspan="2" data-bbox="1219 798 1638 827"></td> </tr> <tr> <td data-bbox="799 827 1006 857">315</td> <td data-bbox="1006 827 1219 857">82 - 80 mm</td> <td data-bbox="1006 827 1219 857">595</td> <td data-bbox="1219 827 1431 857">1 - 0 mm</td> <td colspan="2" data-bbox="1219 827 1638 857"></td> </tr> <tr> <td colspan="2" data-bbox="799 857 1006 886">.....</td> <td colspan="2" data-bbox="1006 857 1219 886"></td> <td colspan="2" data-bbox="1219 857 1638 886"></td> </tr> <tr> <td data-bbox="799 886 1006 916">511</td> <td data-bbox="1006 886 1219 916">7 - 6 mm</td> <td colspan="4" data-bbox="1006 886 1638 916"></td> </tr> <tr> <td data-bbox="799 916 1006 945">518</td> <td data-bbox="1006 916 1219 945">5 - 3 mm</td> <td colspan="4" data-bbox="1006 916 1638 945"></td> </tr> <tr> <td data-bbox="799 945 1006 975">525</td> <td data-bbox="1006 945 1219 975">2 - 0 mm</td> <td colspan="4" data-bbox="1006 945 1638 975"></td> </tr> </tbody> </table>						Vegetative Phase		Reproductive Phase		Ripening Phase		USD	Precipitation	USD	Precipitation	USD	Precipitation	7	200 - 198 mm	53	163 - 161 mm	7	87 - 85 mm	14	197 - 195 mm	63	160 - 158 mm	14	84 - 83 mm	21	194 - 192 mm	74	157 - 155 mm	21	82 - 80 mm	.....		.....		.....		98	165 - 163 mm	284	88 - 86 mm	231	7 - 5 mm	105	162 - 160 mm	294	85 - 83 mm	238	4 - 3 mm	112	159 - 158 mm	305	82 - 80 mm	245	2 - 0 mm	.....		.....		.....		301	87 - 86 mm	578	7 - 5 mm			308	85 - 83 mm	588	4 - 2 mm			315	82 - 80 mm	595	1 - 0 mm			.....						511	7 - 6 mm					518	5 - 3 mm					525	2 - 0 mm				
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Content	Note of Agriculture Index Insurance (2/2)
Claim procedure	<ul style="list-style-type: none"> <li>• Claim survey will not be needed → insurance company knows when to pay the claim, i.e. when the trigger is hit, regardless of harvest result</li> <li>• Claim documents = copy of insurance certificate; farmer's bank account</li> </ul>
Target	Individual, mostly low income society
Distribution channel	<ul style="list-style-type: none"> <li>• Rural bank</li> <li>• Cooperatives</li> </ul>
Main challenges during pilot project (5 planting seasons)	<ul style="list-style-type: none"> <li>• Trust from the farmers</li> <li>• Actuarial rating (pricing engine)</li> <li>• Find out the right partners who understand and accept ACA's the concept of Sustainable Farming and Integrated Risk Management through agriculture insurance</li> <li>• When the trigger was hit we found out that farmer's net profit was 200%, whilst their previous net profit only 100% → <i>increase in net profit due to Integrated Risk Management concept</i></li> <li>• Farmers are = <ul style="list-style-type: none"> <li>✓ looking for very low insurance premium (government subsidy) → weak entrepreneurship attitude,</li> <li>✓ happy to spend USD 45 for cigarette in a month but reluctant to pay for insurance premium of USD 20 for a 3-month agriculture insurance period</li> </ul> </li> </ul>

Content	Challenges for ACA Insurance
Main roles of agriculture insurance product	<ol style="list-style-type: none"> <li>1. <b>Reduce the possibility of harvest failure</b> – Integrated Risk Management:           <ul style="list-style-type: none"> <li>• Farmers = drought resistant seed, water reservoir, drip irrigation, etc.</li> <li>• Extension workers / field officers = reward and punishment supported by mobile apps</li> <li>• Off-taker = more transparent product specification for any harvest, contract farming</li> <li>• Finance company = cashless transaction</li> <li>• Insurance company = Good Agriculture Practice (GAP) and Good Handling Practice (GHP) become one of the conditions</li> </ul> </li> <li>2. <b>Increase farmers net profit</b> → to attract more young farmers based on digital farming system</li> </ol>
Ideal agriculture insurance scheme	<p><b>Indemnity scheme for <i>an Ecosystem of Sustainable Farming based on Integrated Risk Management</i> =</b></p> <ol style="list-style-type: none"> <li>1. Payout when there's a loss</li> <li>2. Wider coverage = climate risk, pest and disease → managed by Integrated Risk Management that involve local wisdom + digital farming</li> <li>3. Claim handling:       <ol style="list-style-type: none"> <li>a. Claim survey = maximum 2 days after disaster</li> <li>b. Fast claim settlement = less than 10 working days upon approval → still accepted by farmers as long as before due date of their loan settlement → no need for 1 day payout</li> <li>c. Claim payment will enable farmers =           <ol style="list-style-type: none"> <li>i. Covers all expenses / debts before due date</li> <li>ii. Have enough money for = debris removal after disaster, daily household expenses</li> </ol> </li> </ol> </li> <li>4. Manageable loss ratio = less than 75%</li> <li>5. No premium subsidy from government</li> </ol>

**Jakub Nugraha**  
**nugraha.jakub@gmail.com**



# Q&A Session

# Thank you.

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