

# MORO 2022

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# Who is ARC?



Specialised agency of the African Union, set up to help African states to prepare and plan for climate-related disasters














Set up in 2012 as Africa's response to increasing frequency and severity of natural disasters



35 member states from across Africa

# Differences between micro, meso and macro index insurance products

Type of insurance	Who?	How?
 <p>Micro</p>	<ul style="list-style-type: none"> <li>Individuals are policyholders</li> <li>Usually smallholder farmers</li> <li>Often grouped in farmer organisations</li> </ul>	 <p>Farmer</p> <p>premium →</p> <p>← payouts</p>  <p>Insurer</p>
 <p>Meso</p>	<ul style="list-style-type: none"> <li>Aggregators are policyholders (MFI, bank, co-operative, agro-processor, contract farmer, input supplier...)</li> </ul>	 <p>Beneficiaries (farmers, linked to aggregator)</p> <p>aggregator sets the premium &amp; payout rules for individual farmers</p> <p>→</p> <p>←</p>  <p>Aggregator</p> <p>premium →</p> <p>← payouts</p>  <p>Insurer</p>
 <p>Macro</p>	<ul style="list-style-type: none"> <li>Government/development partner is the policyholder</li> <li>Payouts made directly to vulnerable farmers</li> </ul>	 <p>Beneficiaries (vulnerable subsistence farmers)</p> <p>Government sets the payout rules for individual farmers</p> <p>←</p> <p>←</p>  <p>National or State Government</p> <p>premium →</p> <p>← payouts</p>  <p>Insurer</p>

# Macro-level risk transfer solutions



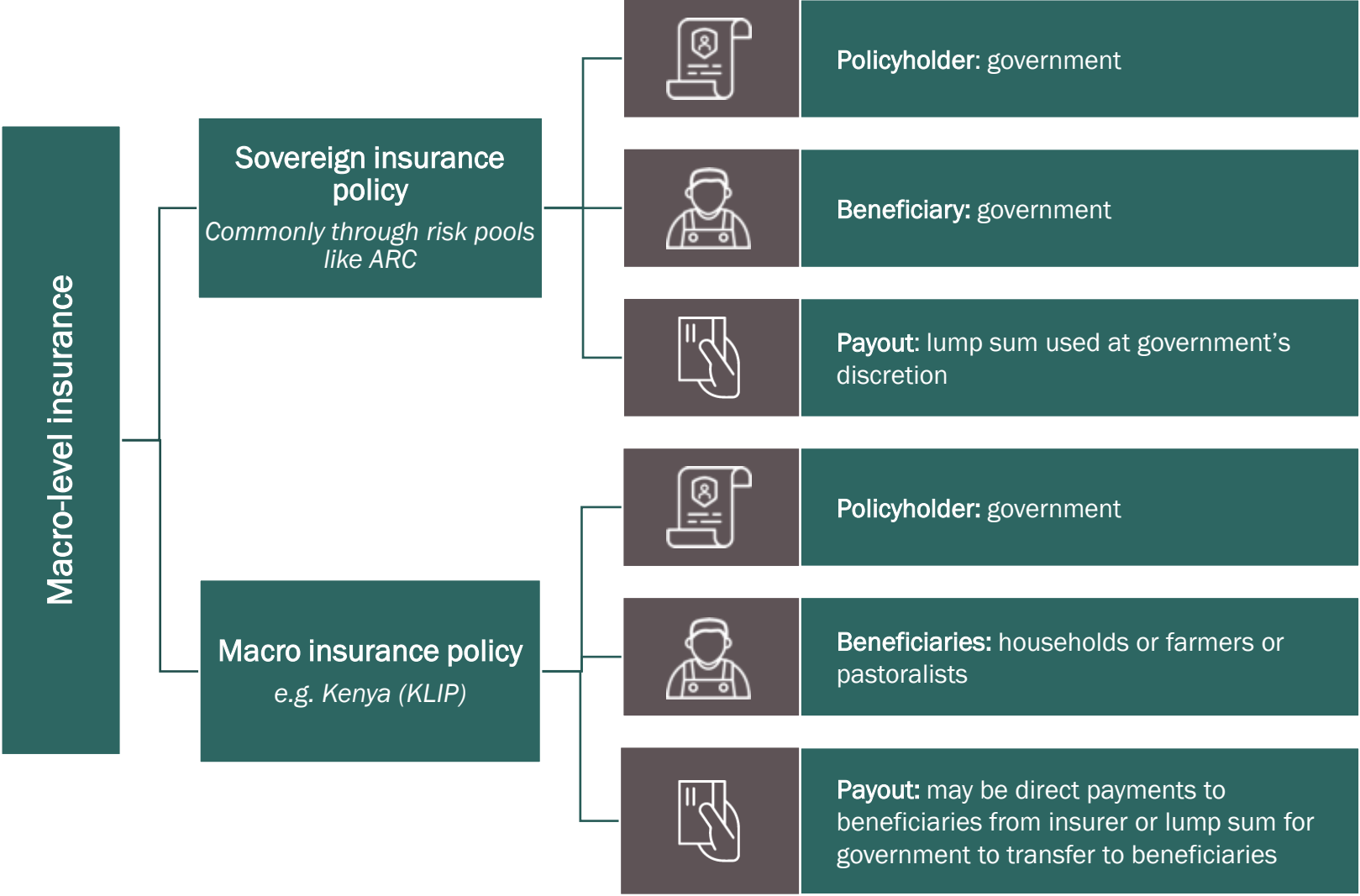
**Sovereign risk insurance** purchased by a government to provide liquidity and smooth budgets at times when natural disasters occur. Commonly purchased through **regional insurance pools** such as the African Risk Capacity (ARC), to improve affordability and build regional ownership and technical capacity. May be used by government and development partners to provide support directly to affected households to mitigate the impact of shocks.



**Alternative risk transfer products** like **CAT bonds**, **weather derivatives** and **price derivatives** have similar objectives to sovereign insurance, but the risk is placed into the financial markets via different mechanisms.



# How can macro-level insurance be used?



# Using macro-level index insurance to finance disasters



## Direct welfare benefits

Late response can lead to decreased child nutrition and reduction in income per capita (GDP). Studies showed that the later the response, the more costly the impact on households.



## Pre-empt negative coping strategies

Households tend to cope with disasters by selling livestock and productive assets, reducing food consumption, and taking children out of school for example. These responses often have long-term, irreversible and sometimes intergenerational effects.



## Reduces the cost of response







According to recent studies, a late humanitarian response costs approximately 7 times that of an early response, and donors could save up to 30% on humanitarian aid spending if funding was provided earlier.



## Macro-economic benefits

Reduces the need for governments to divert scarce resources away from basic public services therefore protecting development gains. Reduces leakages and improves fiscal discipline and limits budget volatility which contributes to national stability.

# What are the tradeoffs of macro/meso vs. micro level products?

	Meso- and macro- level	Micro-level
 <b>Outreach</b>	Financial protection can reach hundreds or even thousands of small-scale poor farmers directly or indirectly under a single policy	Limited
 <b>Affordability</b>	More affordable premium due to reduction of sales and operational costs e.g., marketing and promotion, underwriting and claims processing	Less affordable premium due to high retail costs
 <b>Supply of insurance</b>	The scale and spatial spread of meso/macro insurance allows for sufficient business volume and more viable terms than those of a small micro-level project.	Less attractive to local and international insurers
 <b>Supply of credit</b>	Meso risk transfer can be used to protect lenders' portfolios, increasing their willingness and ability to lend	Farmer may use policy in place of collateral to gain access to credit
 <b>Certainty and timing of payout</b>	May be slow if distributed by aggregator or government	<ul style="list-style-type: none"> <li>• Farmers have <b>more certainty</b> over payout</li> <li>• <b>Arrival of payouts</b> may be <b>faster</b></li> <li>• May be <b>more objective/transparent</b> than when payouts are distributed by aggregator</li> </ul>
 <b>Behavioural changes</b>	Limited	Individual policyholder may be more confident to invest knowing they will be protected in the event of a disaster, This allows them to focus on production optimisation

# Why did ARC choose to design a macro insurance product?

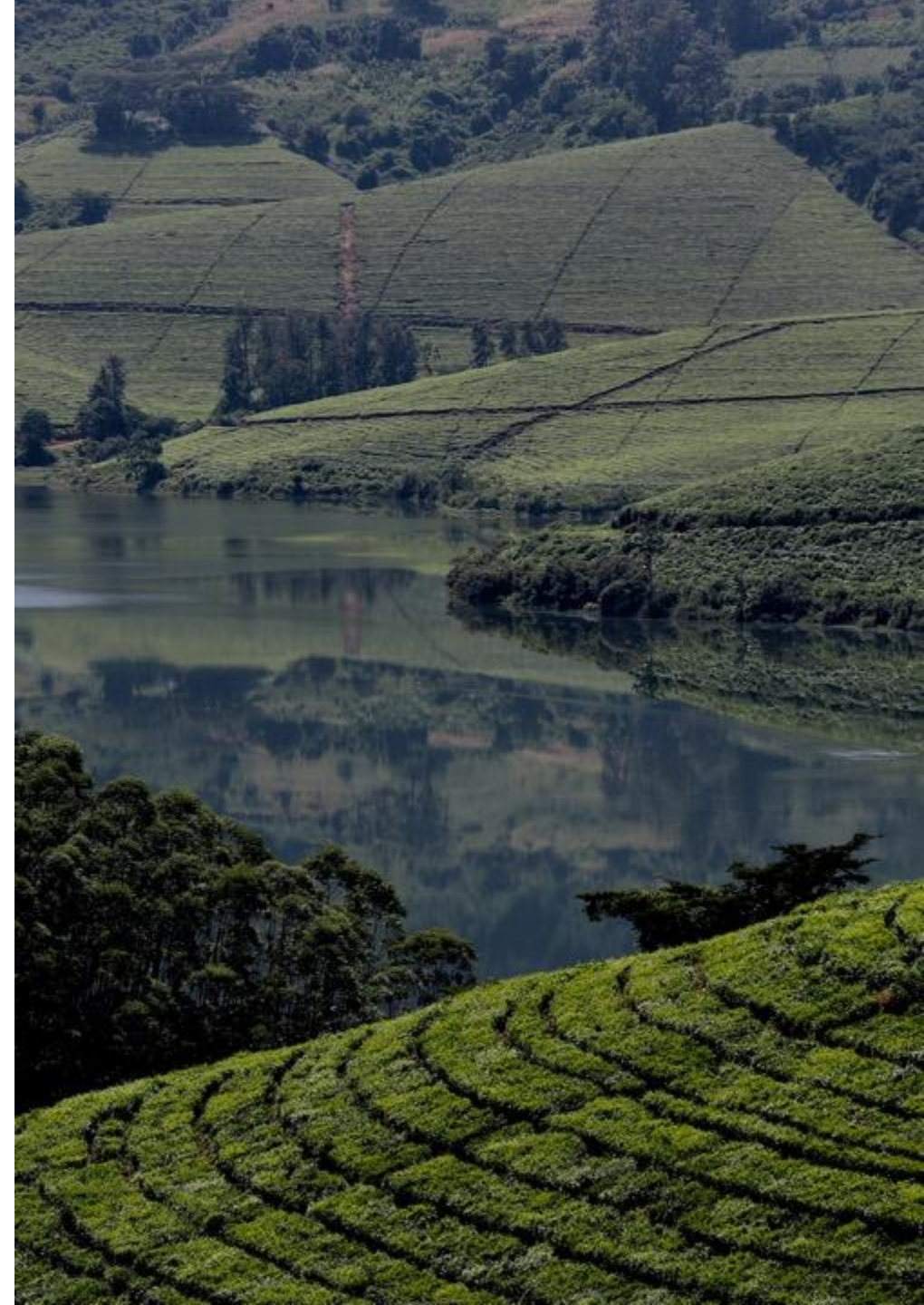
What problem was ARC looking to solve with the product?



- Lack of disaster preparedness
- Ad-hoc post-disaster response
- Absence of pre-arranged financing tools

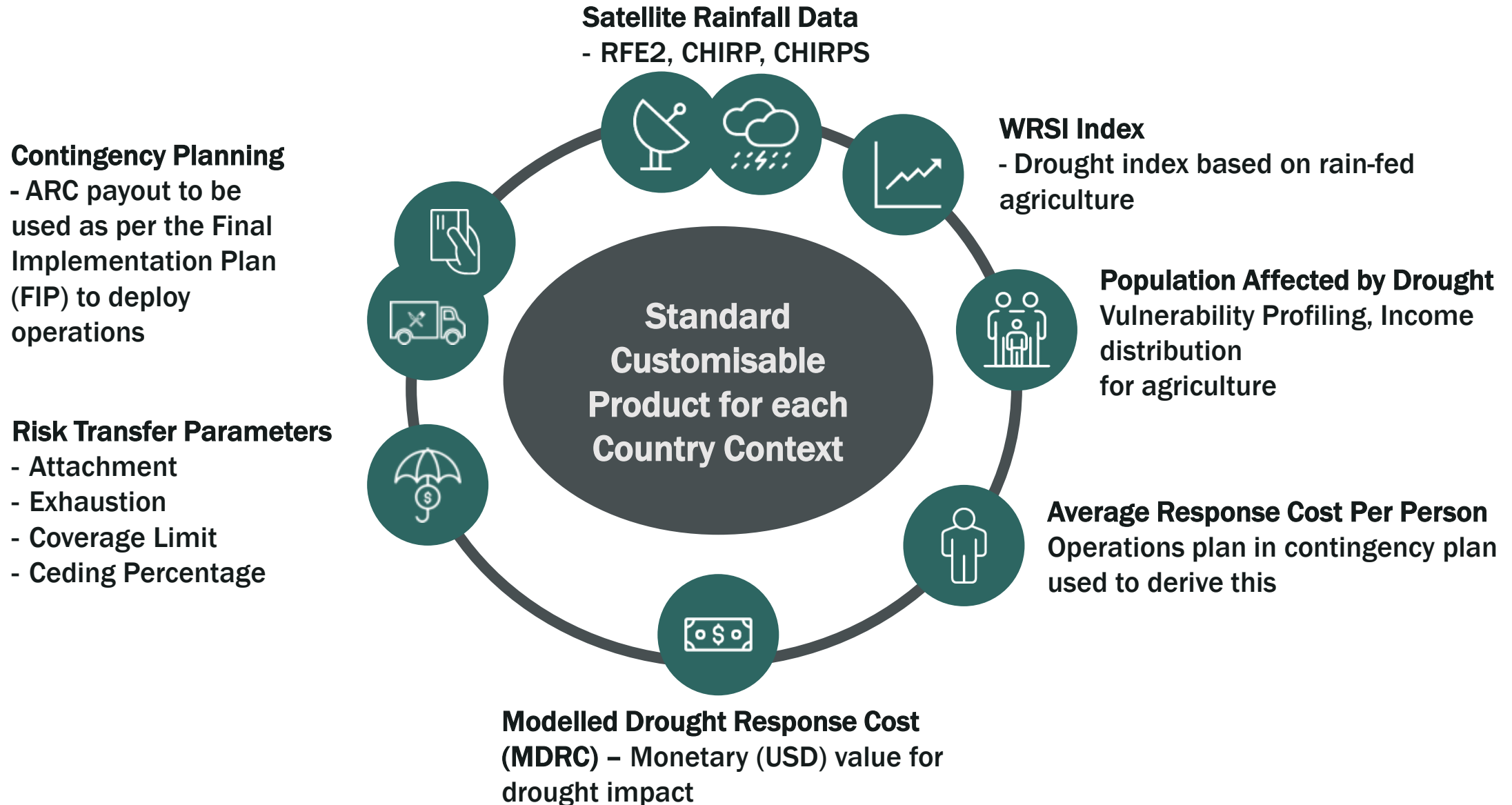


- Improve disaster preparedness and response by assisting countries to better prepare, plan and respond to disasters
- Shift from post-disaster response to pre-arranged financing

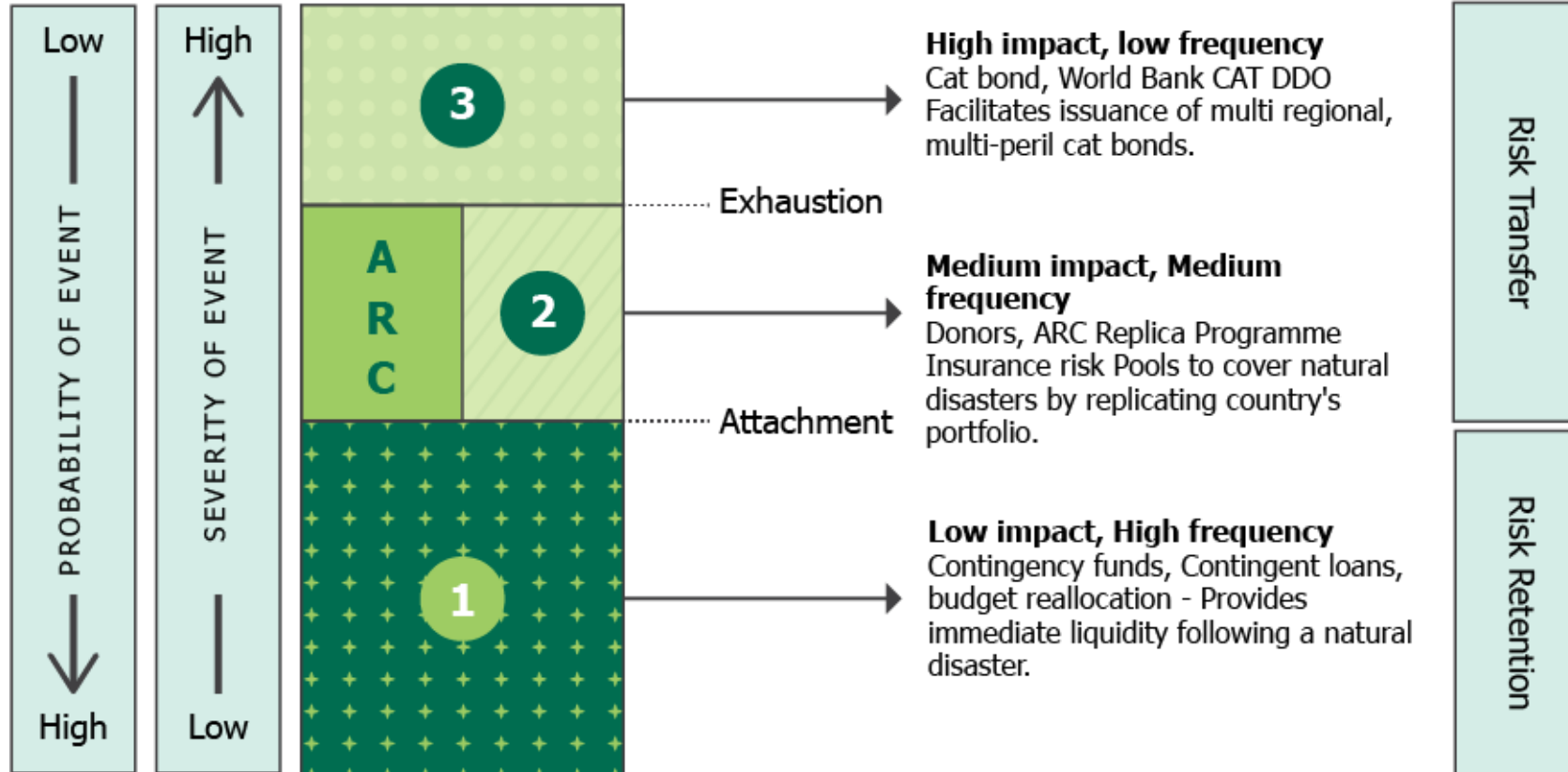




# Key design considerations in the sovereign macro product



# How does this product interact with other risk finance instruments?



# How to ensure the product meets its objectives?

## 1. A minimum benchmark of five years:

- Credible indicator for the detection of droughts
- Higher duration benchmarks reduce the volatility of the risk profile



## 2. Using rainfall dataset starting from 2001:

- Validating the impact of disasters in the 1980s is difficult and adds uncertainty into the model
- Shift in agricultural practices over time



## 3. Minimum attachment level of 1-in-4 years:

- Greatest benefit from insurance is obtained when used to protect high-impact events

## 4. Quality assurance and basis risk management:

- Improved model customisation and validation processes
- Using most recent data to reduce basic risk



## 5. Independent Loss Calculation Software:

- Enables easy detection of errors



## 6. Product ownership for the member states:

- Autonomy and full control over model parametrisation
- Flexibility in selection of risk transfer options

# Risk reduction, product design and challenges

- No explicit incentives were incorporated as part of product design
- ! An indirect incentive to reduce risk exists due to lower premiums for lower risk
- ✓ Embedded/direct incentives required to drive investment in risk reduction



## Challenges

- Lack of a holistic risk layering approach; no other tools to complement insurance
- Unavailability of reliable data for model parameters
- Absence of enabling political, institutional, and regulatory frameworks

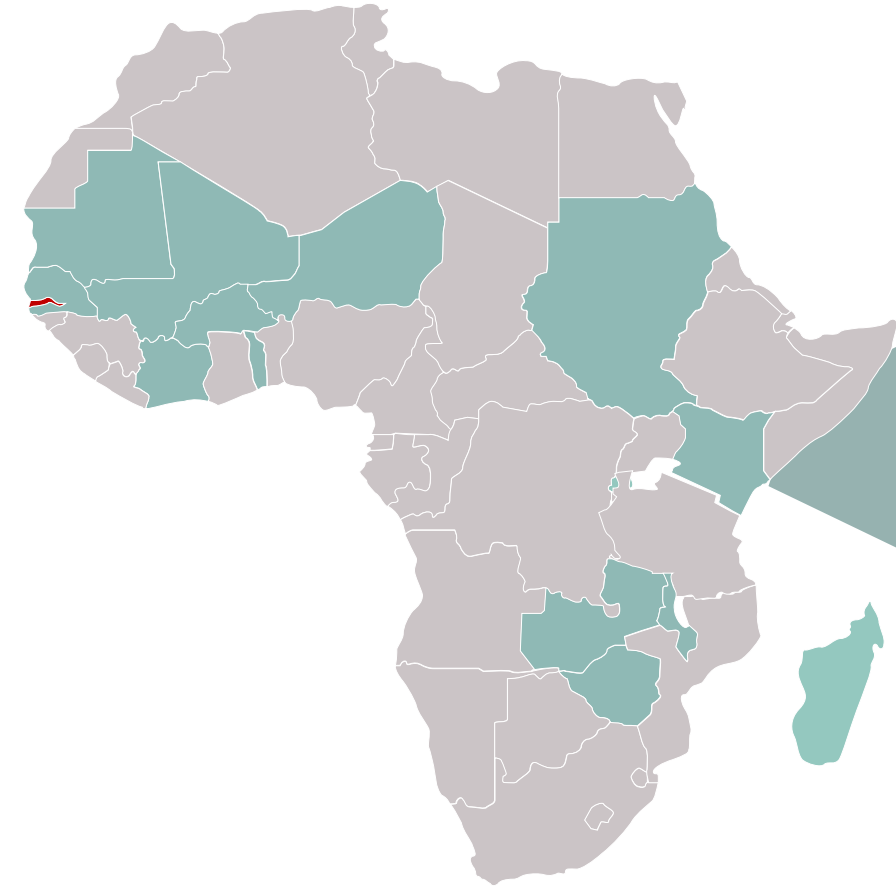


# Reinsurance

- Credibility**
- Capital**
- Capacity**
- Protection from extreme events**
- Volatility**



# Countries participating since 2014



## West and Central Africa

- Côte d'Ivoire
- Burkina Faso
- Gambia
- Mali
- Mauritania
- Niger
- Senegal
- Togo
- Chad

## East and Southern Africa

- Kenya
- Madagascar
- Malawi
- Sudan
- Zambia
- Zimbabwe

# Impact - Payouts



## Senegal

USD 16.5 million in pool 1 (2014/15)  
USD 67,200 in pool 5 (2018/19)  
USD 23.2 million in pool 6 (2019/20),  
Government & Replica



## Malawi

USD 8.1 million in pool 2 (2015/16)  
USD 14.2 million in pool 8 (2021/22)



## Mauritania

USD 6.3 million in pool 1 (2014/15)  
USD 167,133 in pool 6 (2019/20)  
USD 2.8 million in pool 8 (2021/22),  
Government & Replica



## Zimbabwe

USD 1.75 million in pool 6 (2019/20),  
Government & Replica



## Niger

USD 3.5 million in pool 1 (2014/15)  
USD 2.1 million in pool 8 (2021/22)



## Cote d'Ivoire

USD 738,540 in pool 6 (2019/20)  
USD 2.2 million in pool 7 (2020/21)  
USD 647,162 in pool 8 (2021/22)



## Madagascar

USD 2.1 million in pool 6 (2019/20)  
USD 11.5 million in pool 8 (2021/22) for  
Drought and Tropical Cyclone



## Mali

USD 21.7 million in pool 8 (2021/22)  
Government & Replica




## Burkina Faso

USD 1.2 million in pool 8 (2021/22)  
Replica



## Zambia

USD 5.4 million in pool 8 (2021/22)



**Insuring  
Africans  
since 2014**

**USD1 billion  
of risk  
transferred**

**>USD100  
million paid in  
claims**

## **Our Impact**

**Covering 30  
million people/  
year**

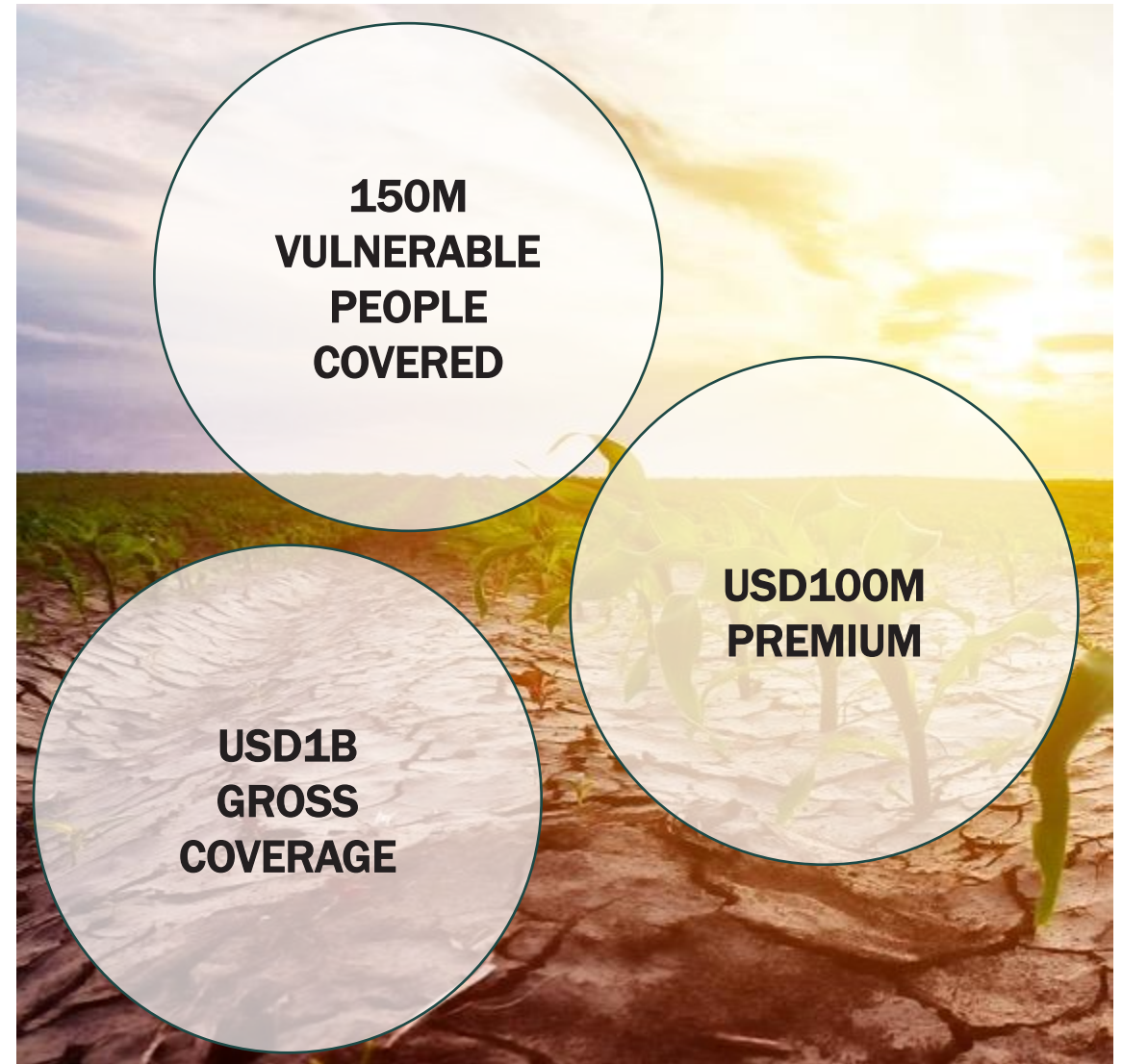
**5 million people  
directly benefitted  
from claims**

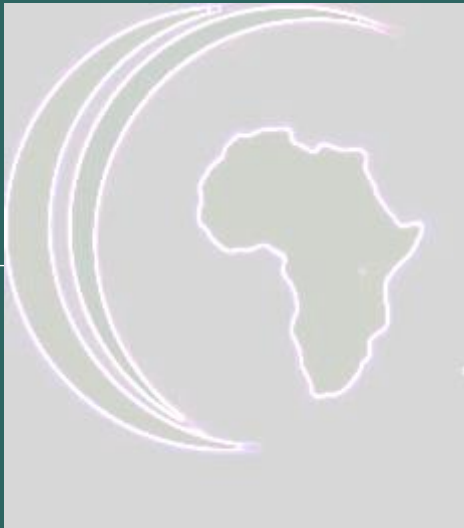


# Growth outlook

There are significant opportunities that exist in the market to leverage One ARC to cover 150 million Africans.

This would require growing into a \$100m insurer in the next 5 years that better builds the resilience of the most vulnerable people in Africa.





**Thank You**