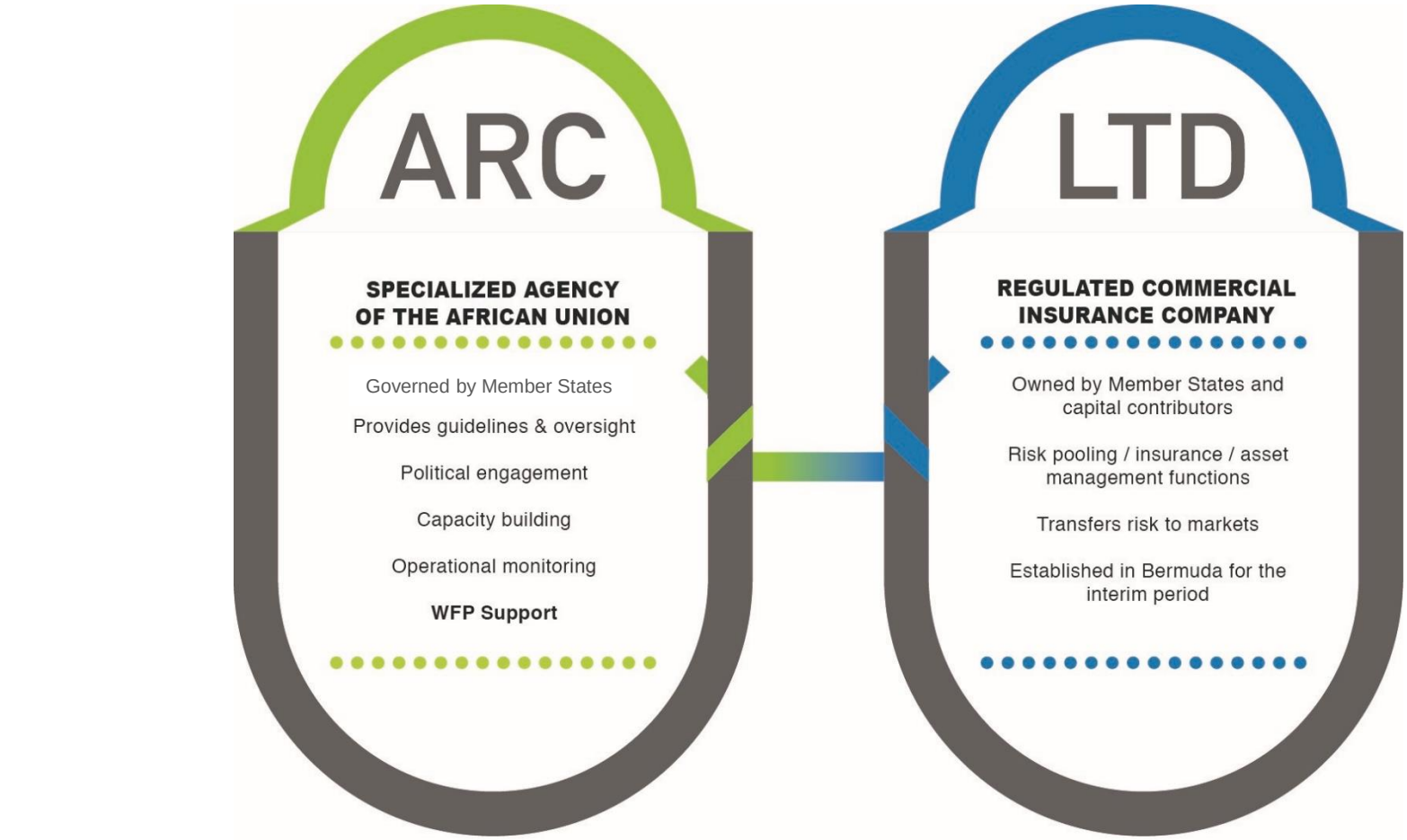
African Risk Capacity

Sovereign Disaster Risk Solutions

A Specialized Agency of the African Union

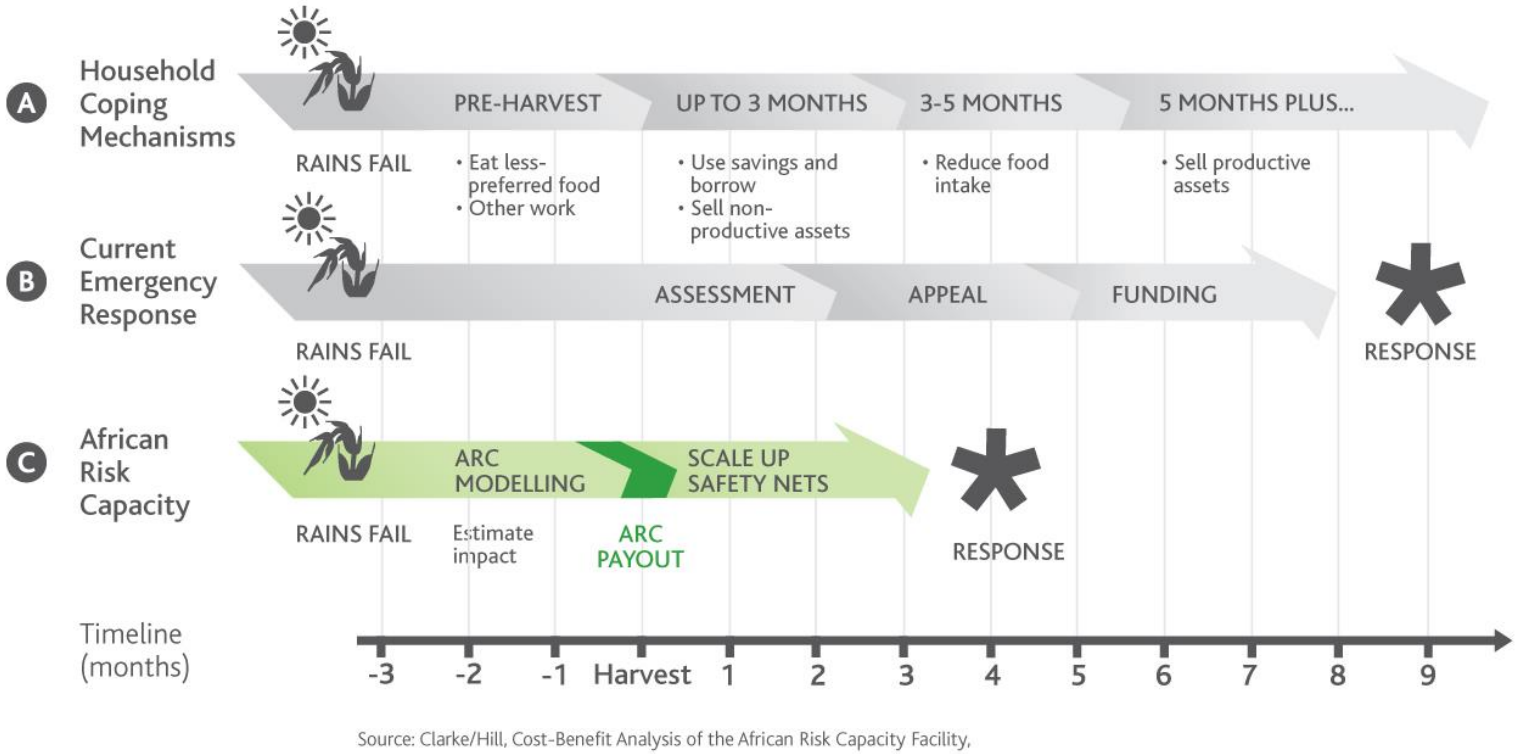
Directions of research and innovation for The African Risk Capacity (ARC)

ARC's Structure



Savings from Early Intervention

Uses *Africa RiskView* to estimate and trigger immediate resources to governments in the case of a disaster.



Source: Clarke/Hill, Cost-Benefit Analysis of the African Risk Capacity Facility,

Cost-effective contingency funding protects livelihoods and development gains

Africa RiskView: Quantifying the Risk

***Africa RiskView* (ARV) is the software application developed to underpin ARC Ltd's index-based drought insurance contracts**

Hazard

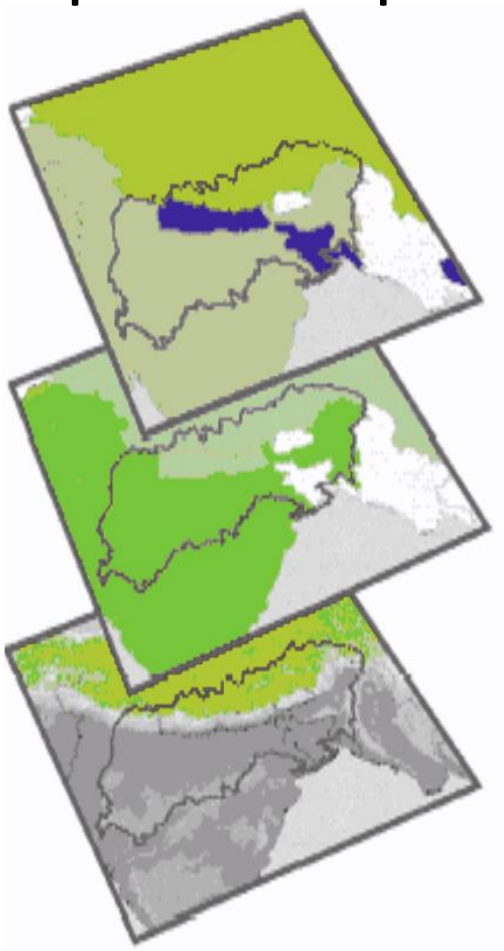
Satellite-based rainfall data for over 261,000 satellite pixels over Africa (0.1 dg x 0.1 dg or 10 x 10km sq. near the equator) updated every 10 days. Current focus is drought with a flood model in development.

Vulnerability

Who's at risk? Where are they? What are they growing or where do their herds graze?

Exposure

In today's procurement and logistic costs, how much will it cost to assist each potential person affected?



Research focus: improving *Africa RiskView*

SAFARI Research project

International collaboration with NDMA Kenya, Agrhymet, Imperial college of London, ILRI, WFP and ARC

Objective: Improve the accuracy of the model

1. Toolkit and assessment of rainfall satellite (inc. CHIRP and CHIRPS with Colombia university)
2. Realtime evapotranspiration (better capture the impact of temperature)
3. Revisit the drought model (WRSI / VCI)

Robustness and sensitivity analysis

Multi Hazard, e.g. flood and excess rainfall

Innovation: Licencing for development

Maximizing the use of Africa RiskView: licencing the software to meso actors.

Crowd in the local insurance sector

Facilitate loans to the agriculture sector by providing a risk tool

Encouraging meso level index insurance

Challenges: marketing cost – training - education

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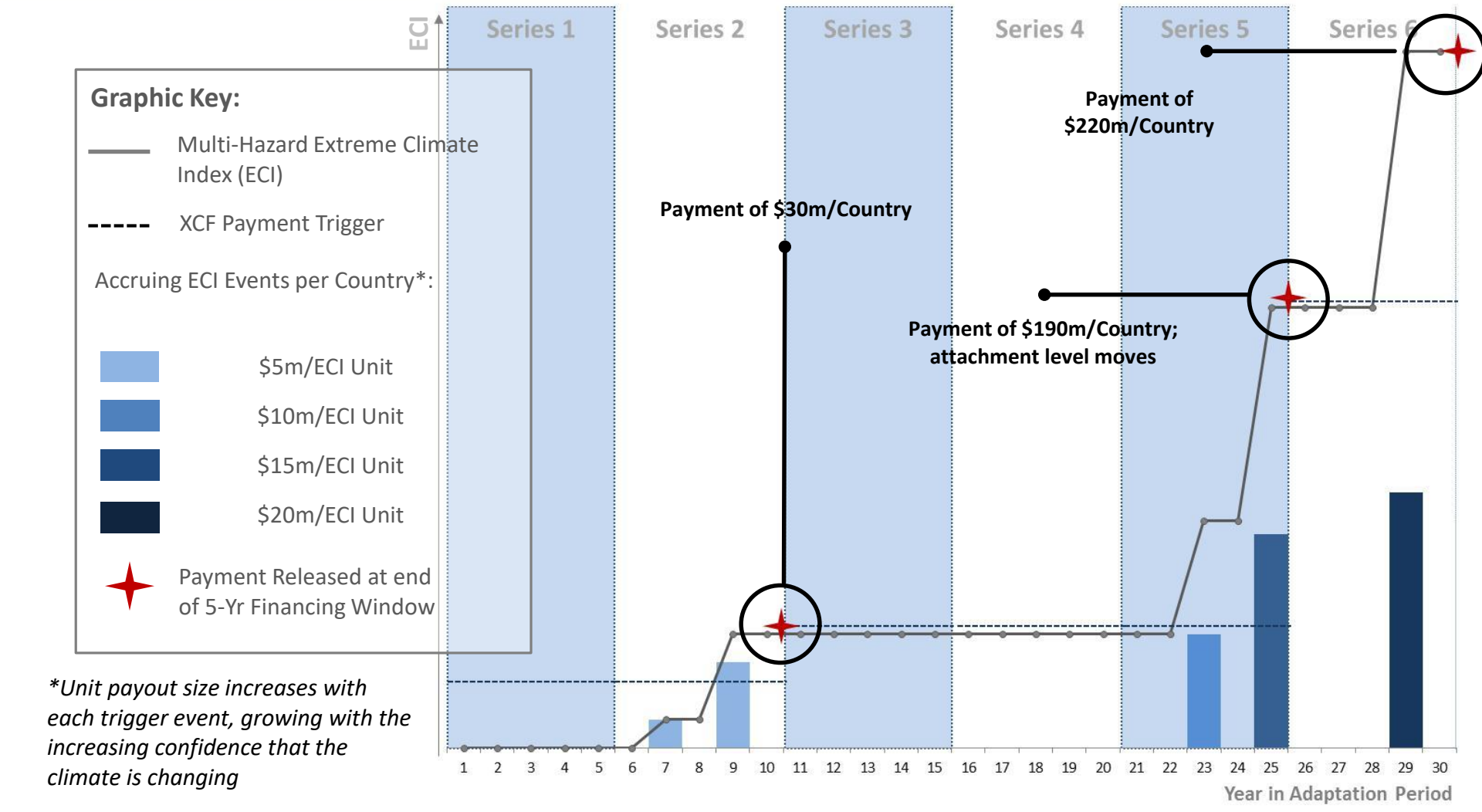
Innovation: The Extreme Climate Facility (XCF)

- The case of Niger
- If the frequency and intensity of extreme weather events increases
- Based on an objective, multi-hazard Extreme Climate Index (ECI) and focus on each climatological region of Africa

XCF Illustration



**Unit payout size increases with each trigger event, growing with the increasing confidence that the climate is changing*

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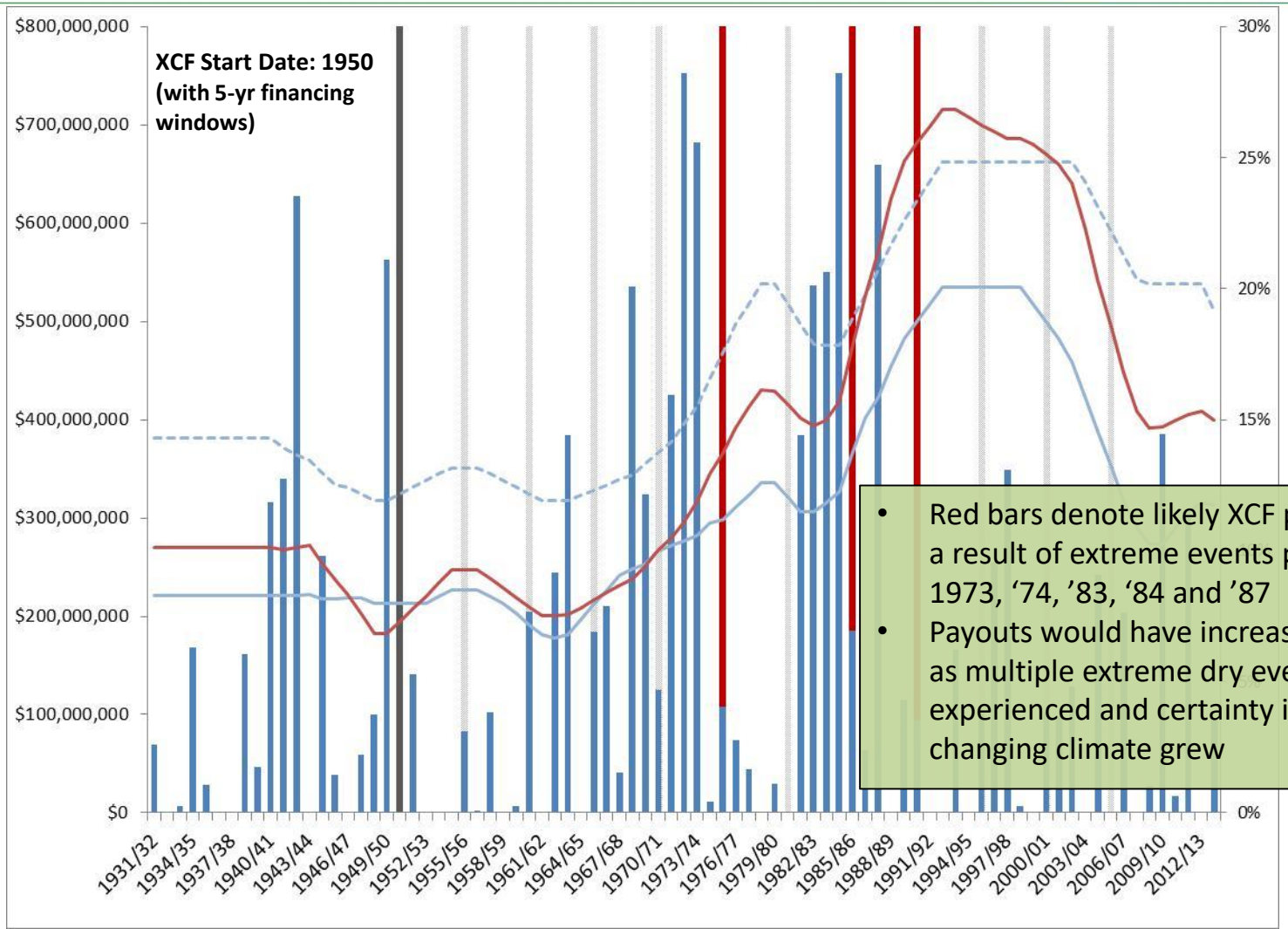
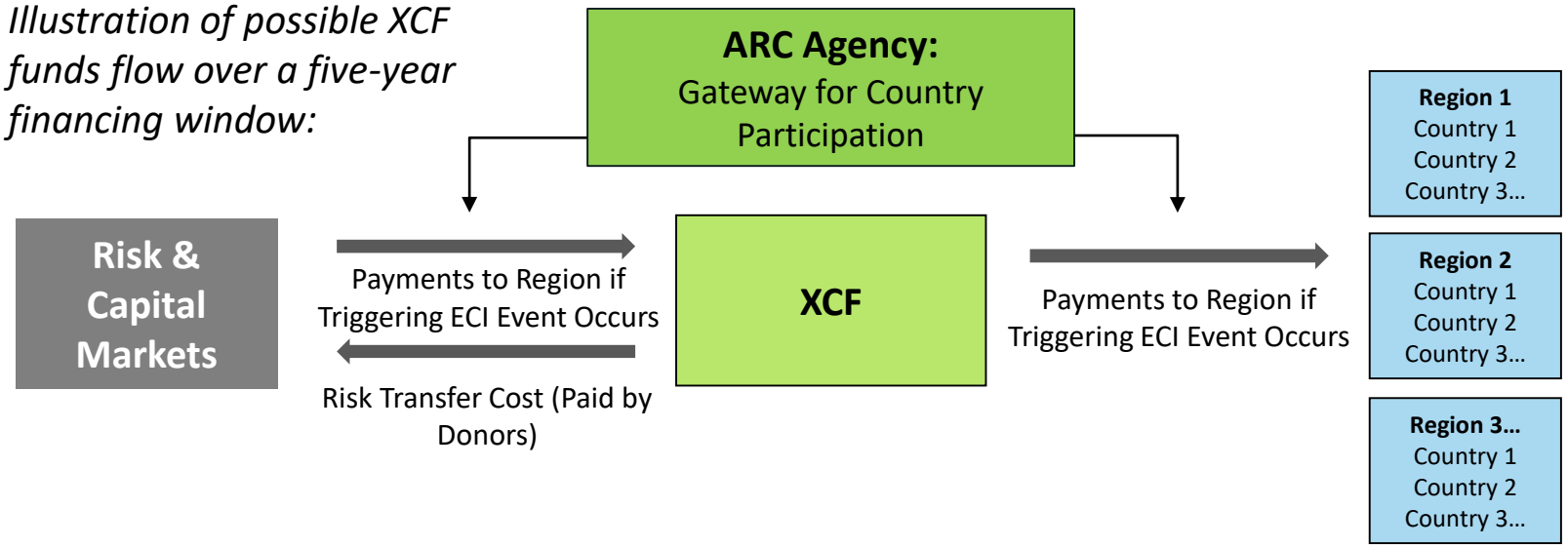
Niger



- Red bars denote likely XCF payouts as a result of extreme events particularly 1973, ‘74, ’83, ‘84 and ’87
- Payouts would have increased in size as multiple extreme dry events were experienced and certainty in the changing climate grew

Mechanism

Illustration of possible XCF funds flow over a five-year financing window:



Eligibility

If triggered, XCF payments will be released to countries only with climate adaption plans approved by ARC Agency's Peer Review Mechanism (PRM)

- ARC Member States that are actively managing their weather risk
- With climate adaptation plans approved by ARC Agency Peer Review Mechanism
- The critical questions to be addressed:
  - What would be the most effective use of XCF funds?
  - How should they be prioritised to a) reduce household vulnerability, b) build meaningful, effective national resilience and c) lead to affordable ARC Ltd premiums?
- To be effective, XCF's climate adaptation plan standards should align with and build on on-going work in climate adaption and ARC will need to partner with existing initiatives

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Thank You

Website: www.africanriskcapacity.org

Twitter: @ARCapacity