African Risk Capacity

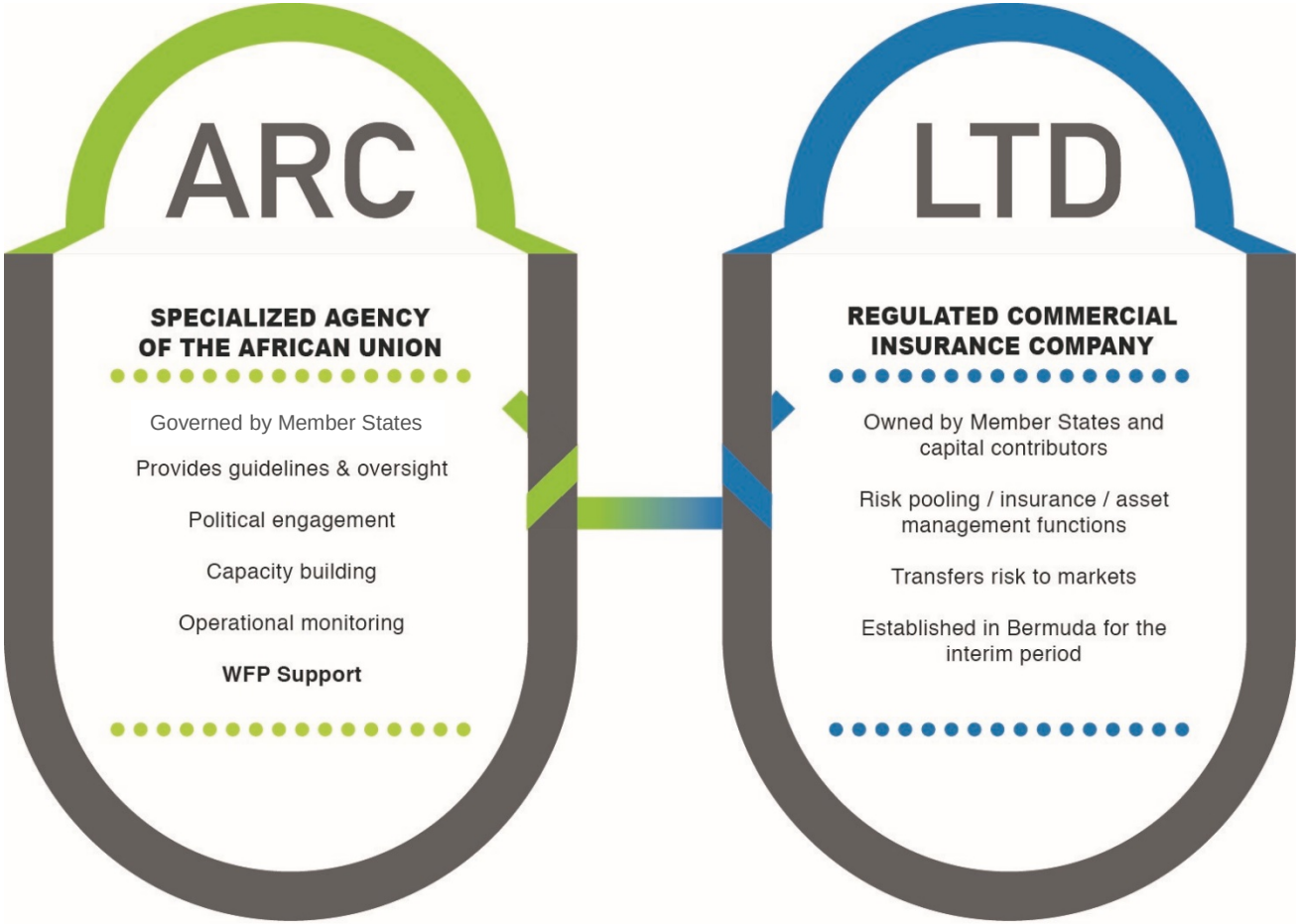
Sovereign Disaster Risk Solutions

A Specialized Agency of the African Union

The African Risk Capacity (ARC): Preparing Africa for Extreme Climate Events

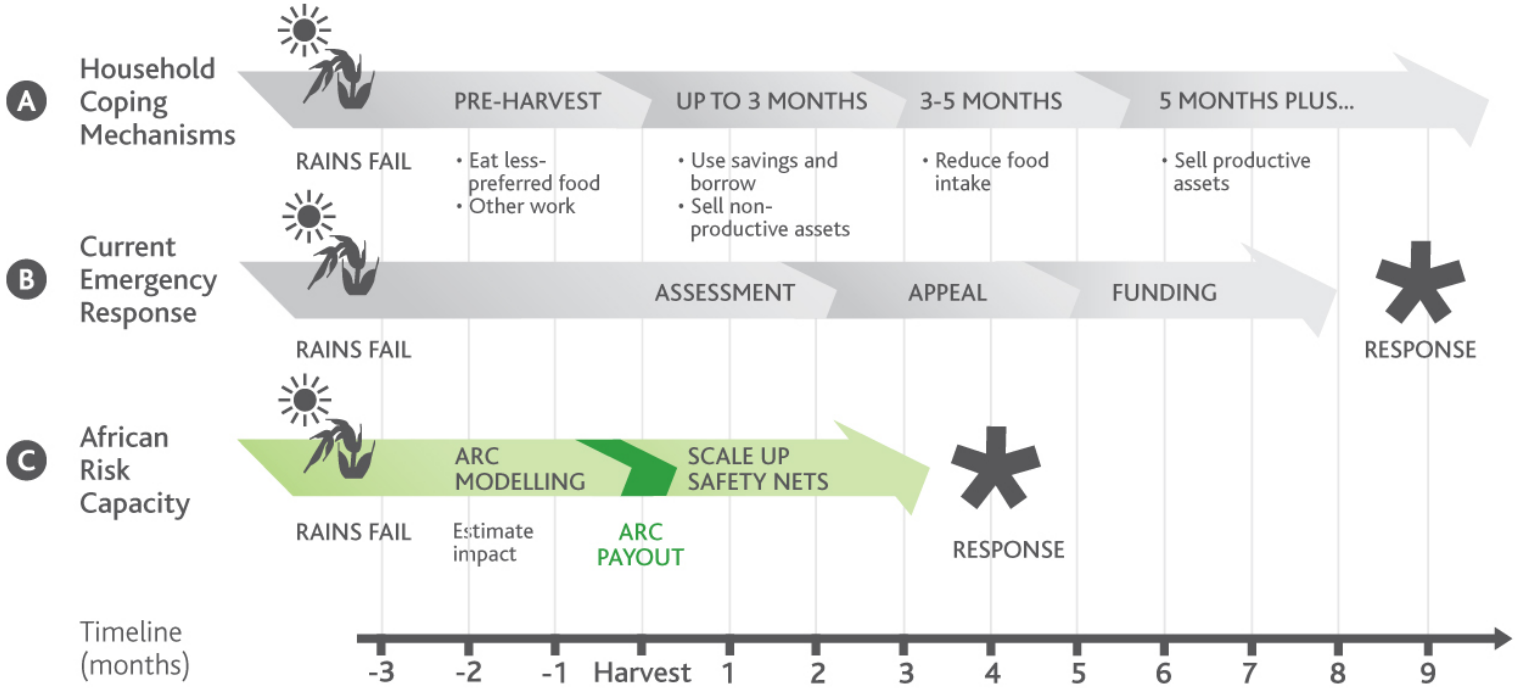
African Risk Capacity

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

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Africa RiskView: Quantifying the Risk

Hazard

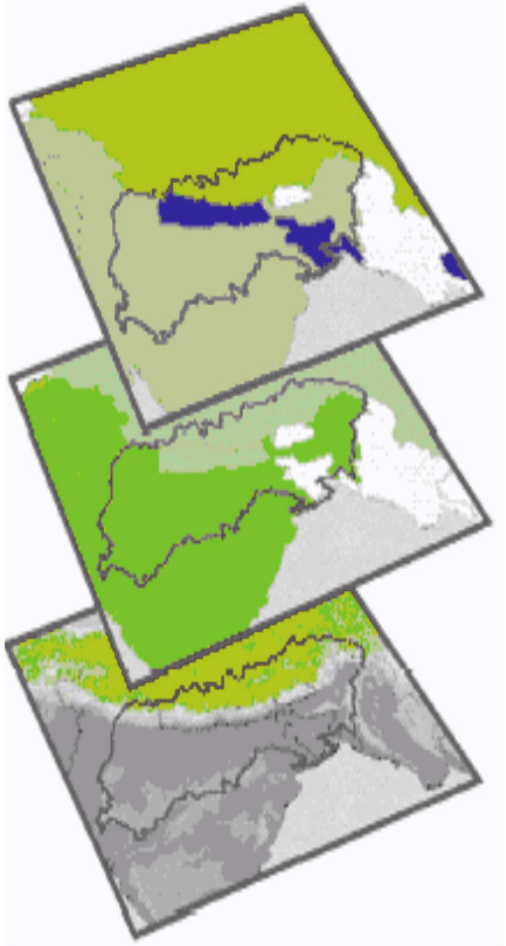
Satellite-based rainfall data for over 261,000 satellite pixels over Africa (0.1 dg x 0.1 dg or 10 x 10km sq. near the equator) updated every 10 days. Current focus is drought with a flood model in development.

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?



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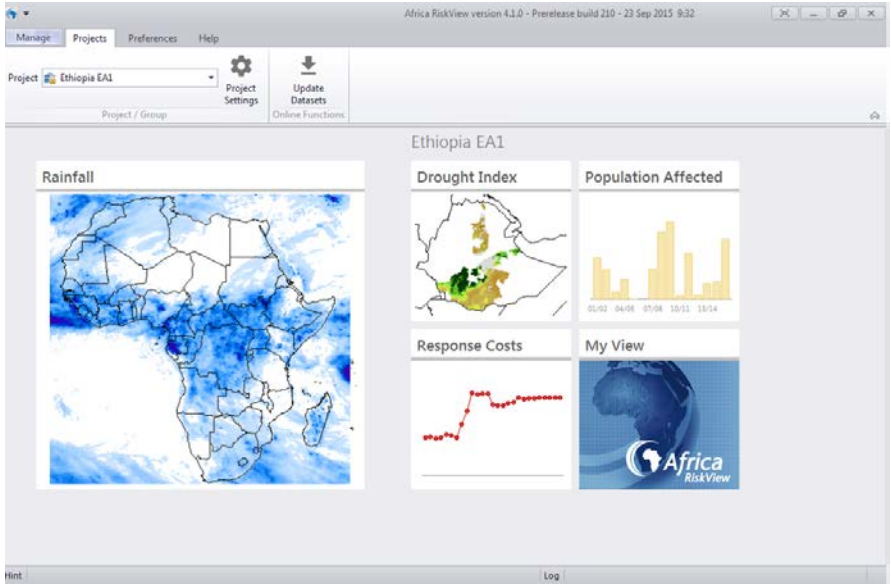
Early Warning

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

- It allows countries to:
  - ✓ Analyse and monitor their drought-related food security risk
  - ✓ Define their participation in the ARC Ltd using transparent criteria
  - ✓ Monitor potential ARC Ltd payouts (online portal in development)
- Developed in-house by WFP/ARC since 2009
- Customising ARV is a prerequisite for a Certificate of Good Standing
- Work to add flood and tropical cyclone component to start in 2015



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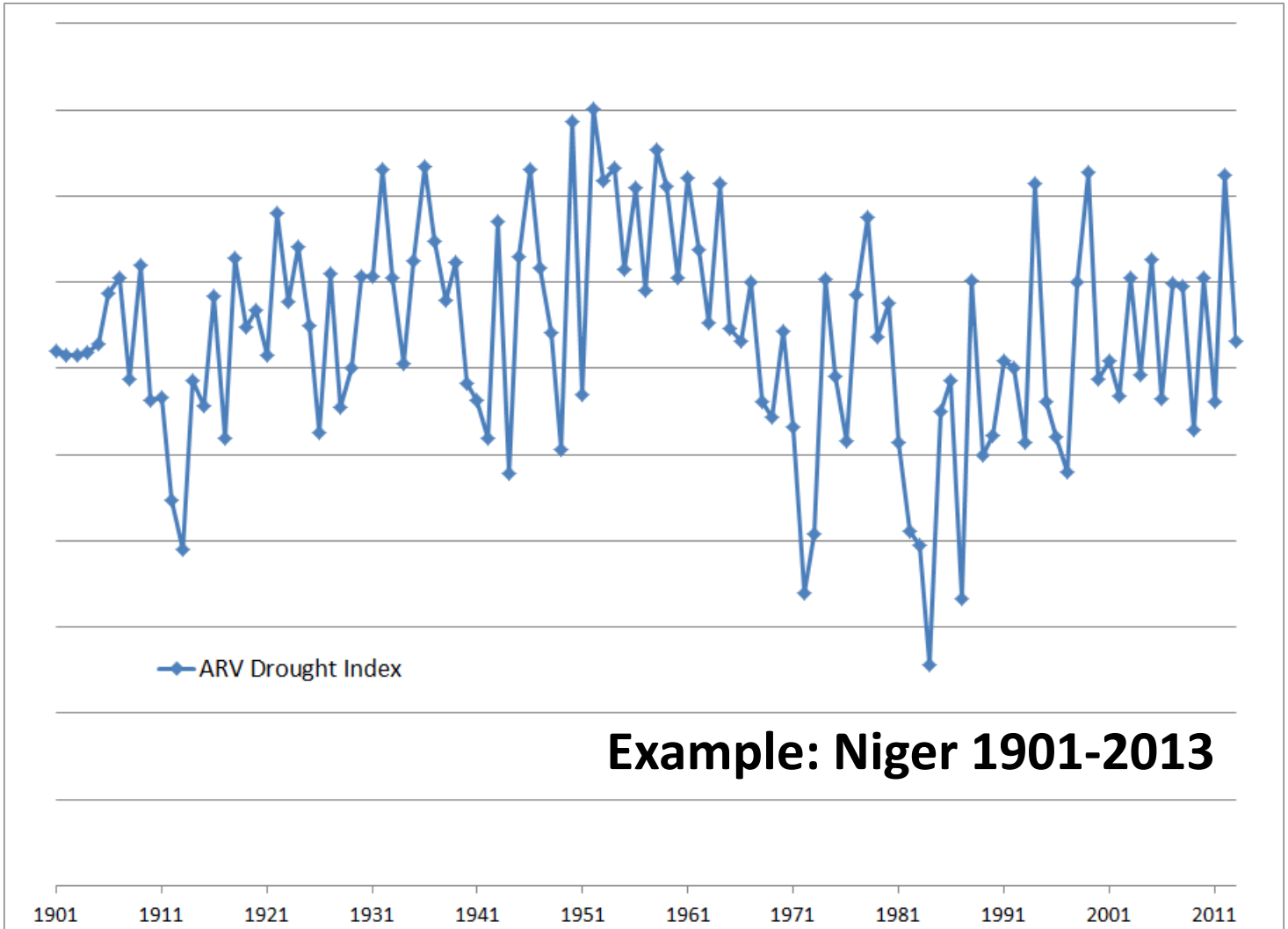
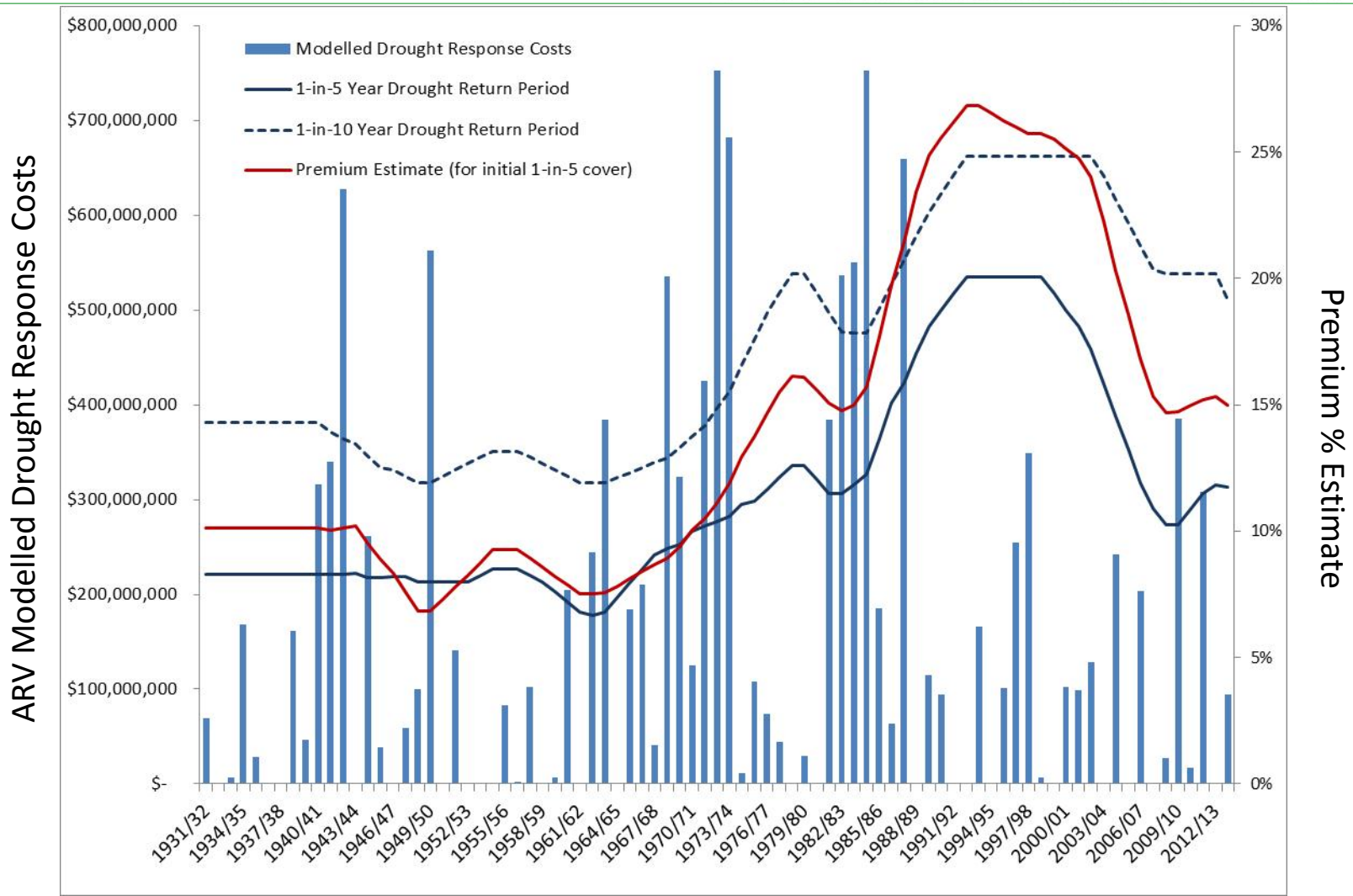
Preparing for Climate Shifts



Insurance Estimates for Niger, 1931-2013



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The Extreme Climate Facility (XCF)

- **Access private capital**
- **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**

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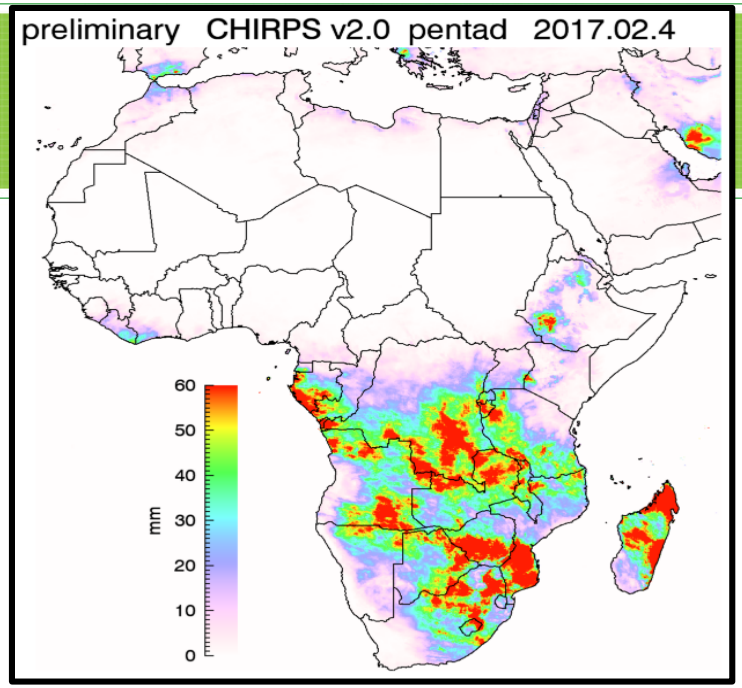
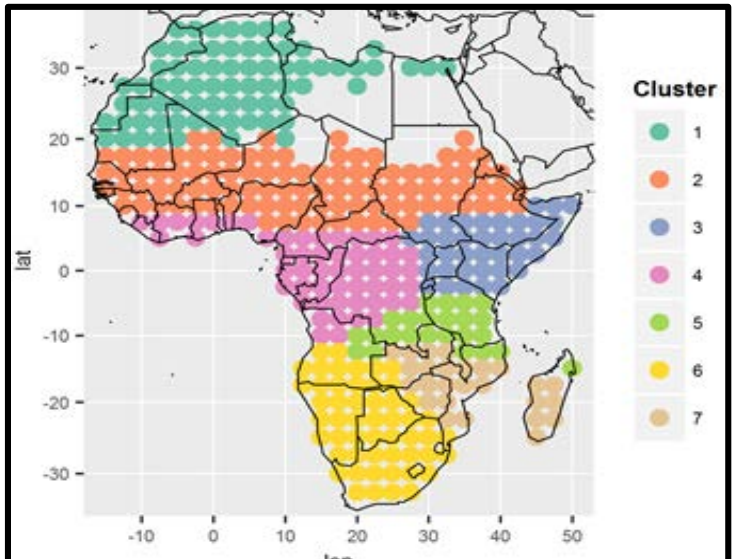
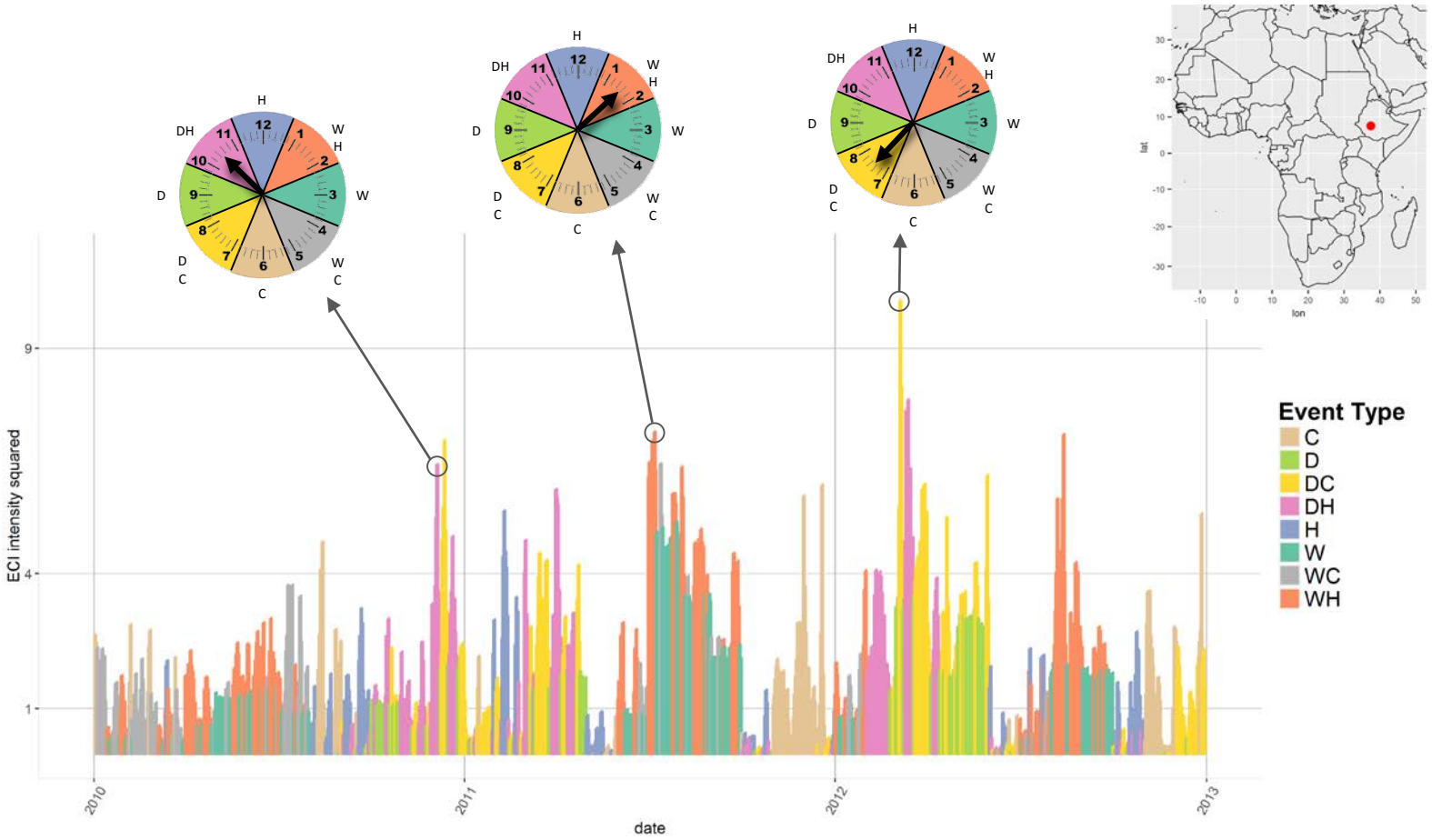
Extreme Climate Index (ECI)

- Composite index based on existing rainfall and temperature indicators that are aggregated across time and space into one index- the **ECI**
- Tracks the severity of specific weather events in that region as well as their frequency over a range of time-scales and weather hazards
- An increasing ECI could indicate a change in the climate regime with respect to the frequency and intensity of extremes in the region



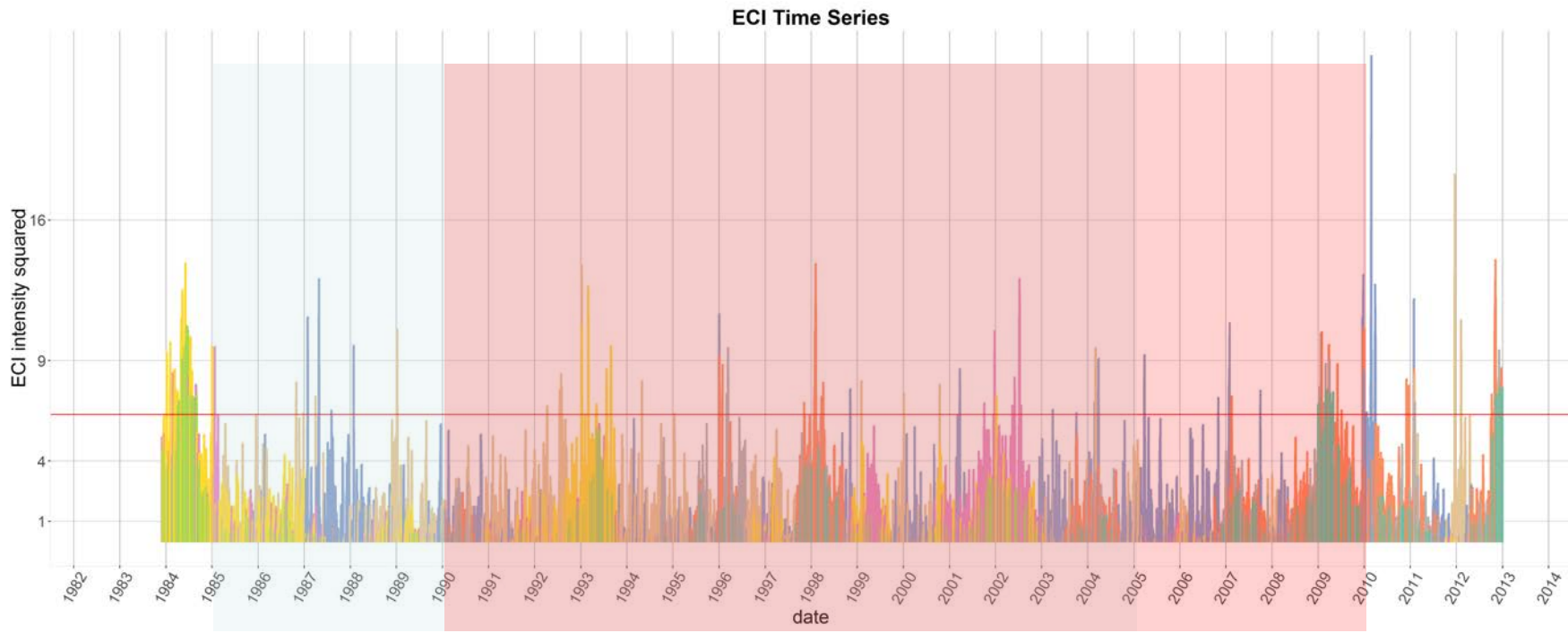


ECI Time Series



Comparing Extremes

Changes in the frequency of extremes are assessed every **5 years** by comparing periods of **30 years**



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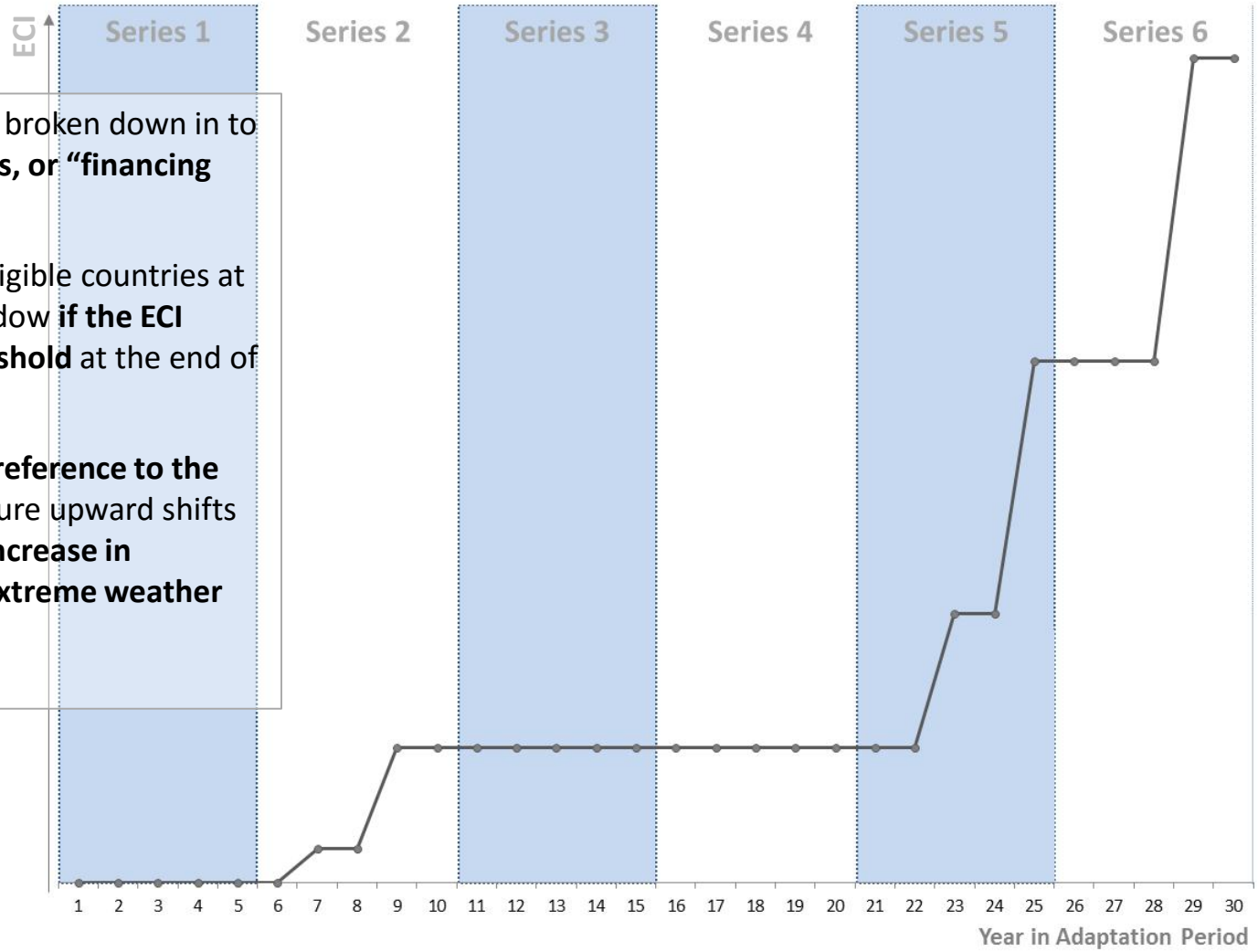
ECI Example

- The XCF adaptation period is broken down in to **non-overlapping 5-yr periods, or "financing windows"** to be insured
- **Payments are triggered** to eligible countries at the end of the financing window **if the ECI exceeds a pre-specified threshold** at the end of the 5-yr period
- The **thresholds are set with reference to the baseline climatology** to capture upward shifts in the ECI and therefore an **increase in frequency and intensity of extreme weather events** in the region



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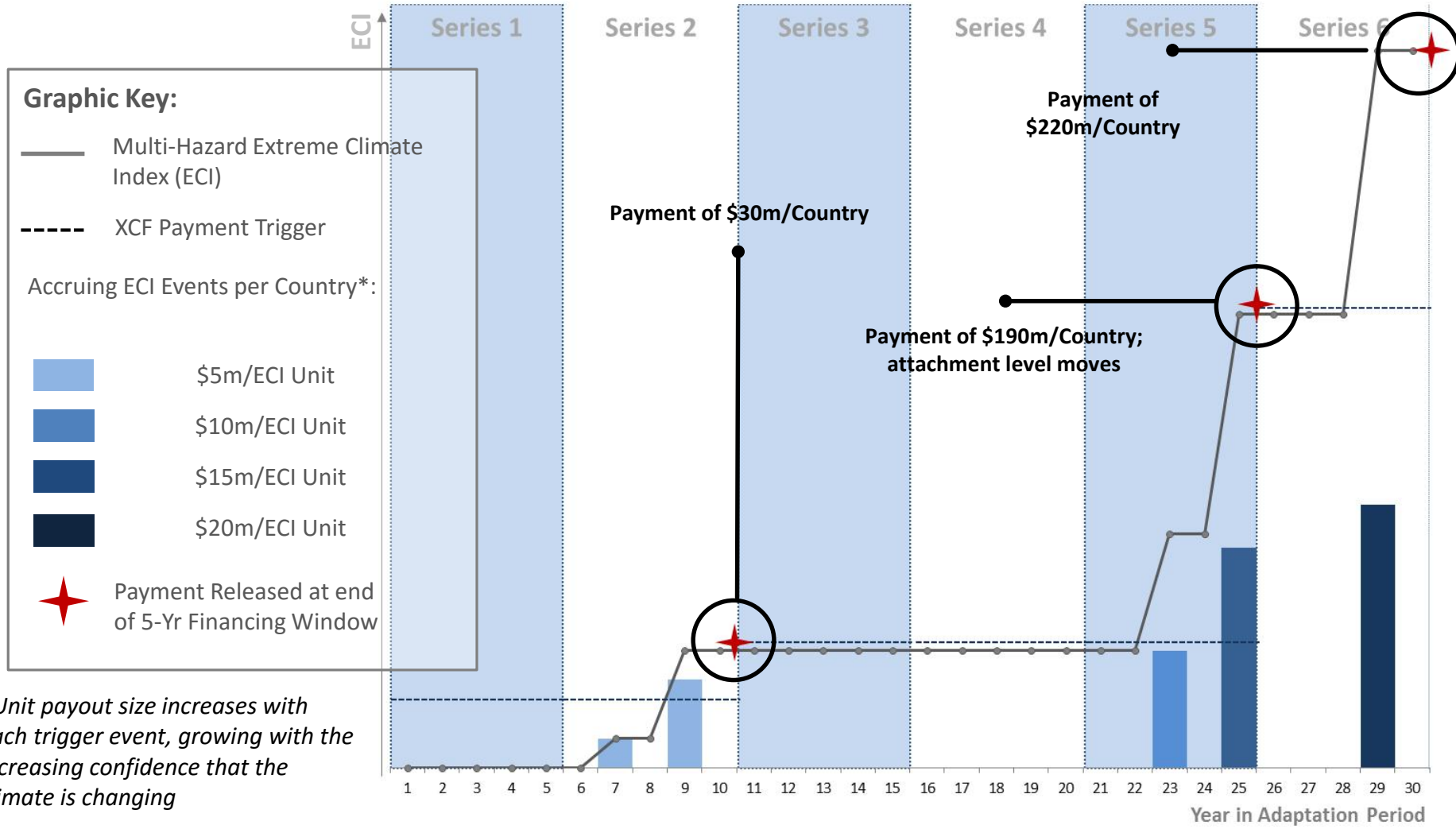
XCF Illustration



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

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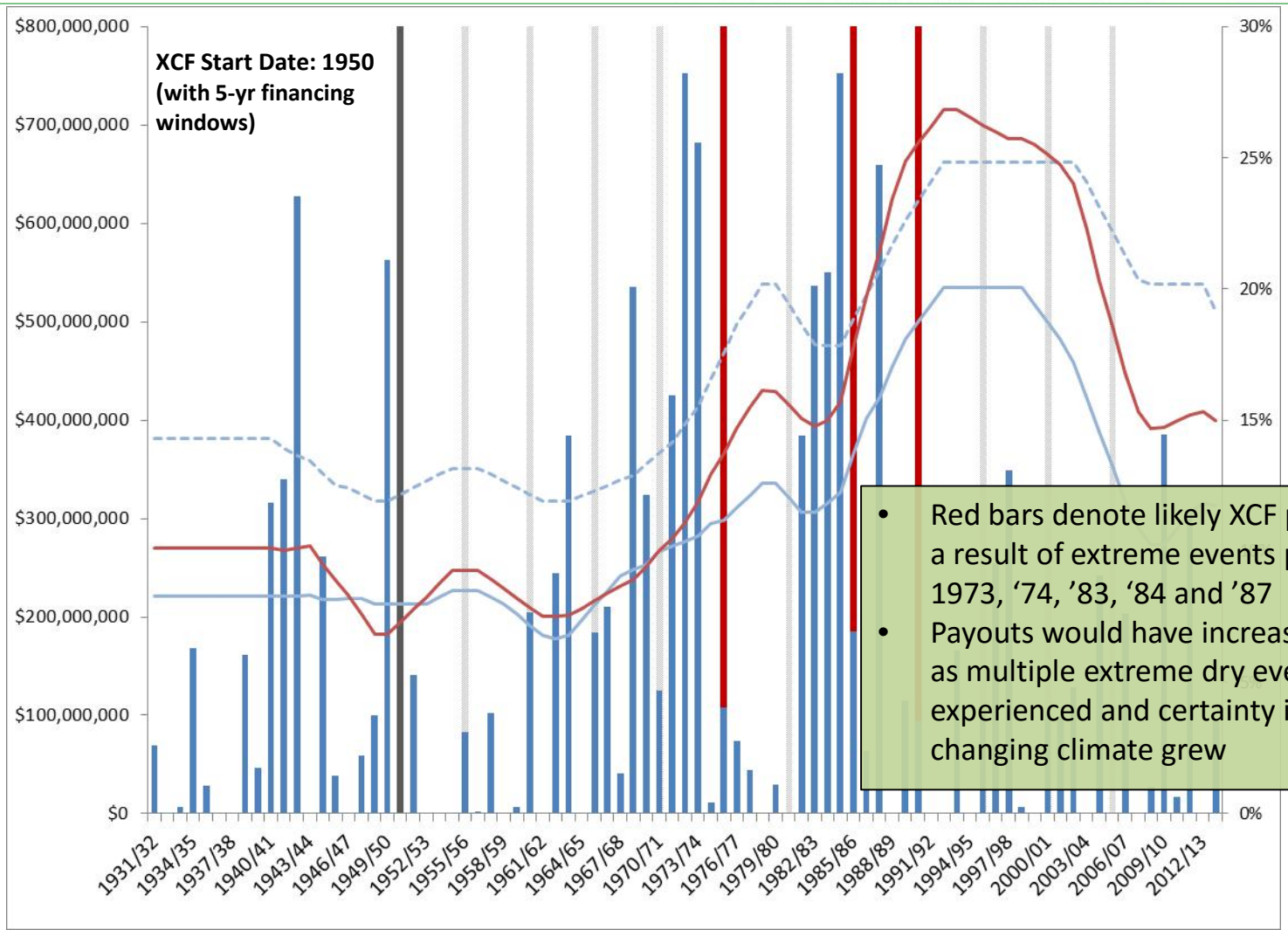
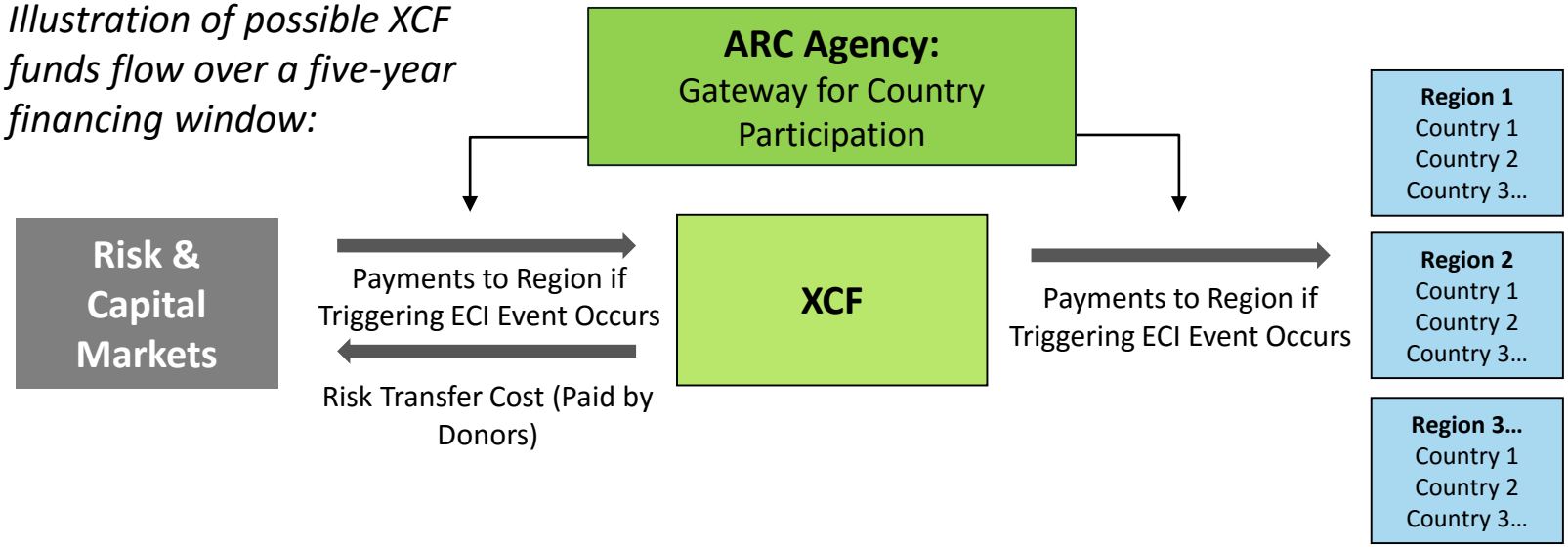
Niger



- 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:



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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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XCF Summary Points

Data-driven facility that tracks the frequency and magnitude of extreme climate events and triggers payouts to eligible countries if changes are detected:

- **Function:** Additional financing for countries *already managing their current weather risks* through ARC Ltd
- **Funding:** Donors pay the coverage costs, leveraging public funds to access new, private capital
- **Data-driven:** Payments to countries will be entirely data-driven over a longer-term period – if there is no significant increase in extreme events over current climatology, then no payments made
- **Climate Adaptation:** Where payments are made, countries must use those funds to invest in climate change adaption measures specified in prioritised country-level adaptation plans
- **Dynamic Action:** Leveraging ARC's existing infrastructure, XCF will ensure that countries and the international community properly monitor climate shocks and are financially prepared to undertake greater adaptation measures should their frequency and intensity increase
- **Integrated:** Linking adaptation planning with ARC's insurance creates risk management synergies for Member States and opportunities for developing metrics and standards for good adaptation

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Thank You

Website: www.africanriskcapacity.org

Twitter: @ARCapacity

Back Up Slides

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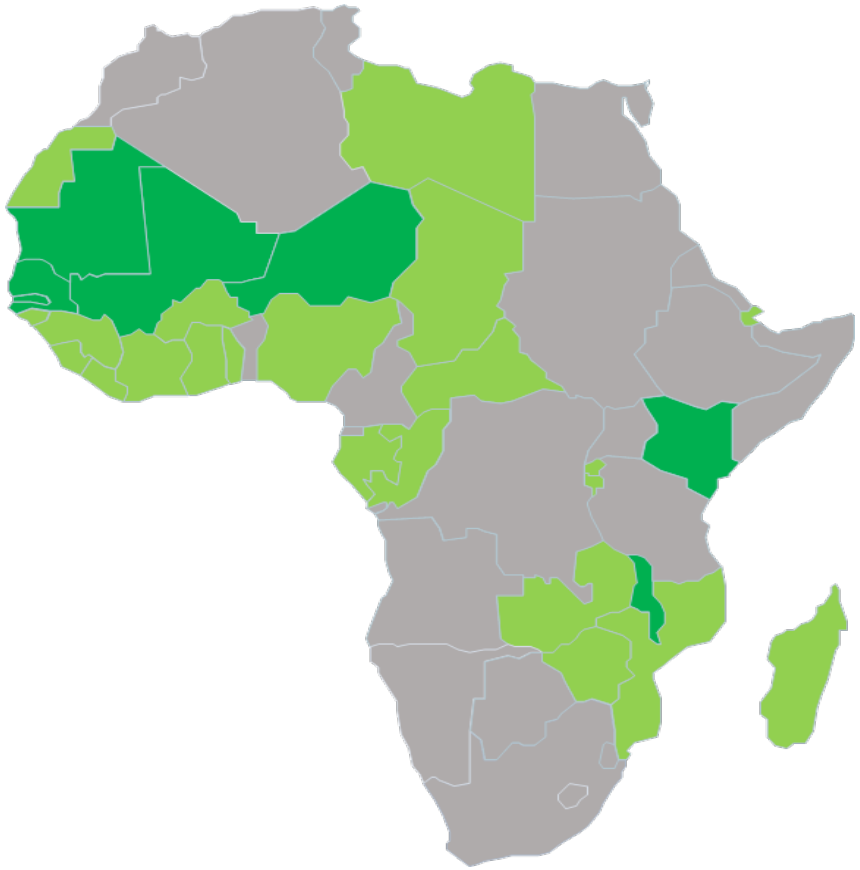
ARC Agency Member States



Original Signatories (23 November 2012)

1.Burkina Faso
2.Burundi
3.Central African Republic
4.Chad
5.Republic of Congo
6.Djibouti
7.The Gambia
8.Guinea
9.Liberia
10.Libya
11.Malawi
12.Mozambique
13.Niger
14.Rwanda
15.Sahrawi Arab Democratic Republic
16. Senegal
17. Togo
18. Zimbabwe

Additional Signatories (date signed)

19.Kenya (28 January 2013)
20.Mauritania (28 January 2013)
21.Côte d'Ivoire (6 February 2013)
22.Comoros (15 February 2013)
23.Gabon (30 January 2014)
24.Madagascar (31 January 2014)
25.Benin (27 June 2014)
26.Nigeria (4 December 2014)
27.Mali (27 May 2015)
28.Ghana (28 January 2016)
29.Guinea Bissau (29 January 2016)
30.Sao Tome & Principe (29 January 2016)
31. Sierra Leone (29 January 2016)
32. Zambia (29 January 2016)