

Outbreaks & Epidemics (O&E) Programme & Product Development

July 2021

ARC O&E Team



WHO IS ARC?

A Specialized Agency of the African Union established in 2012 to help African governments improve their capacities to better plan, prepare, and respond to extreme weather events and natural disasters through innovative insurance solutions, in country risk management and disaster response planning



Customised Early
Warning



Contingency
Planning

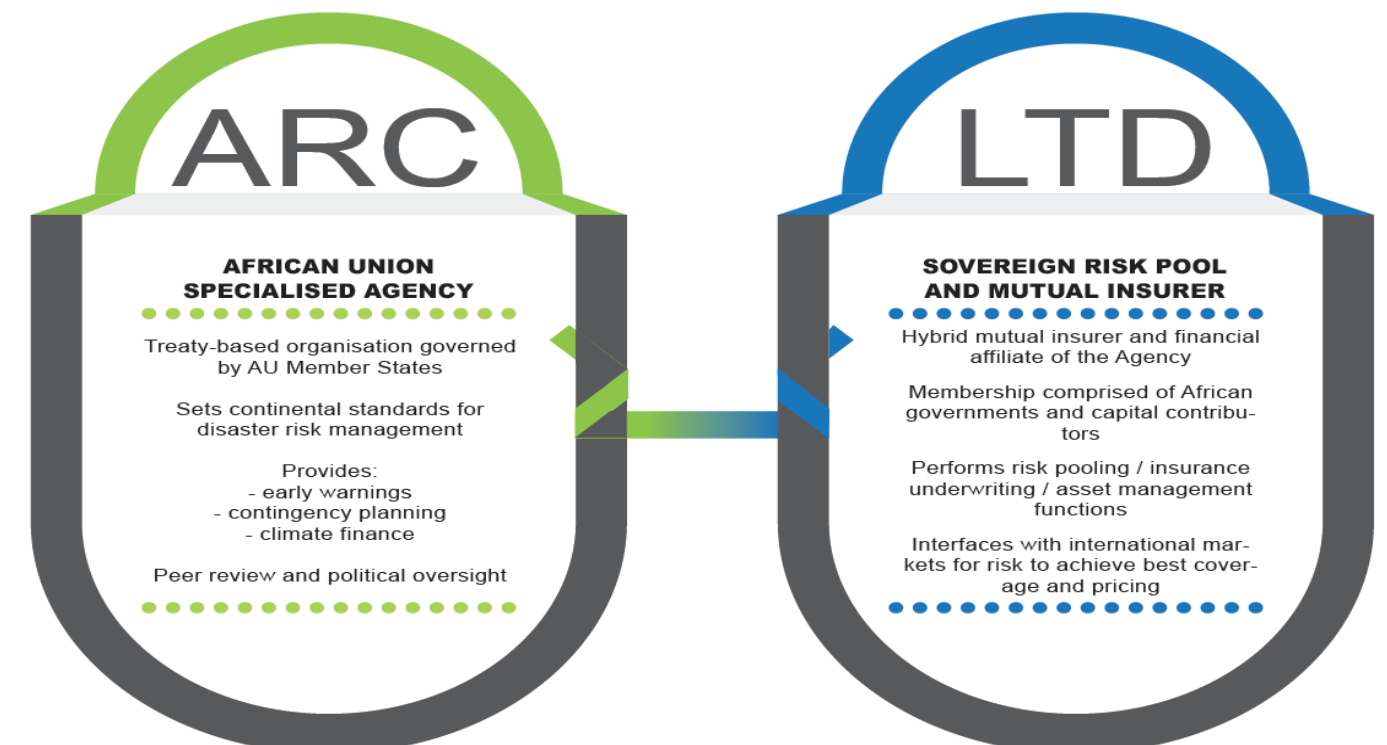


Parametric
Insurance



Risk Pooling & Risk
Transfer

- ARC is structured as two entities Currently offering drought parametric coverage and flood
- Drought product uses [Africa RiskView](#), an advanced satellite weather surveillance and software
- ARC is in the process of developing Outbreaks & Epidemics parametric Insurance and other Specialty products in development



DEMAND FOR A FINANCIAL SOLUTION FOR O&E RISKS

AFRICAN UNION



- Request of African Ministers of Finance in March 2015* to support the Africa CDC;
- Resolution approved in 2015 for ARC Agency to expand its focus and include O&E.

MEMBER STATES



- Interest by AU Member States through the COP to improve their capacities to better plan, prepare for and respond to high-consequence infectious disease outbreaks.

AFRICAN RISK CAPACITY



- Fully embedded in the Group Strategy 2020-2024, provides diversification of the ARC portfolio;
- Compliant with the ARC Treaty.
- Anchor Product under Innovative objective (revised strategy)

* In 2015, the focus of ARC Agency expanded to include O&E following the request of African Ministers of Finance who approved a Resolution, requesting the ARC Secretariat:

“...under the mandate set out in article 2 of the Agreement for the Establishment of the African Risk Capacity Agency, to help States members of the African Union improve their capacities to plan and prepare for and respond to extreme weather events and natural disasters, and to develop an outbreak and epidemic insurance product to complement the efforts of the African Centre for Disease Control.”

WHY OUTBREAKS AND EPIDEMICS?

The business case for strengthening the world's pandemic-response capacity at the global, national, and local levels is compelling. Investments in early detection and preparedness for infectious disease outbreaks is integral for the safe guarding of vulnerable communities and economic livelihoods.

A McKinsey report (May 2021) making the case for greater investments reveals:

- a) An estimated \$85 billion to \$130 billion over the next two years and approximately \$20 billion to \$50 billion annually after that could substantially reduce the likelihood of future pandemics (\$5 per person per year)
- b) By spending a total of \$357 billion over the next decade **on preparations including pathogen surveillance, global immunization, and medical supply stockpiles**, countries can reduce the likelihood of a repeat of another pandemic.
- c) Approximately 27 percent of this spend would take place at the global and regional levels, and about **73 percent would take place at the country level** (8 percent in high-income countries and 65 percent in middle- and low- income countries).

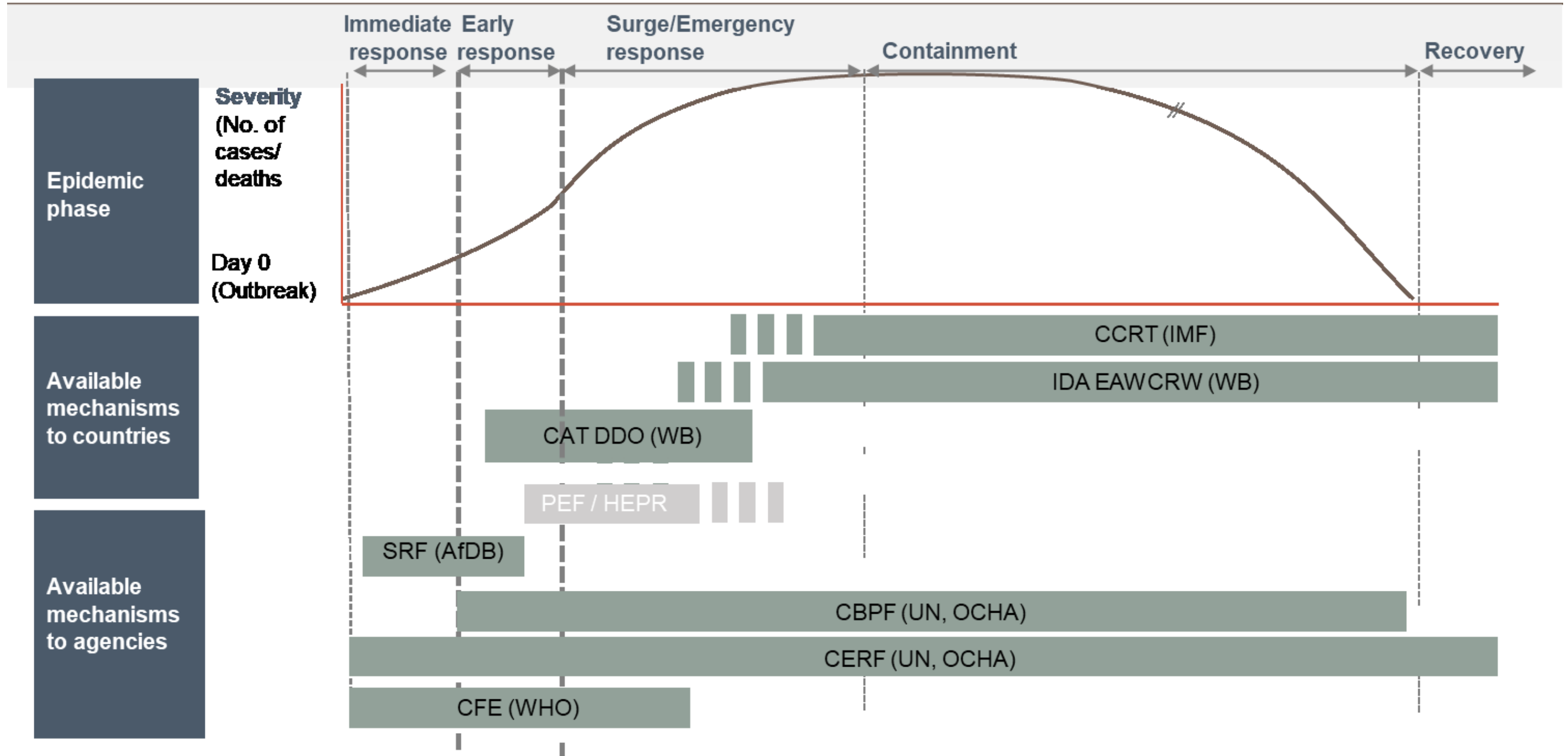
World bank Enterprise Surveys (2020) in which 8 Sub-Saharan countries participated reveals:

- 60% of firms reported suspending operations at some point
- 82% of firms experienced a decline in sales compared to the same month in 2019
- 81% of firms experienced disruptions to their supply of inputs and raw materials
- On average, employment declined by 22% between the eight countries

40%
of all employed
women – 510 million
women globally –
work in hard-hit
sectors
[food service, retail,
hospitality...]

\$16 trillion
Cost of the economic
disruption caused by
COVID19 pandemic

ARC O&E VALUE ADDED- FINANCING OPTIONS FOR OUTBREAK RESPONSE

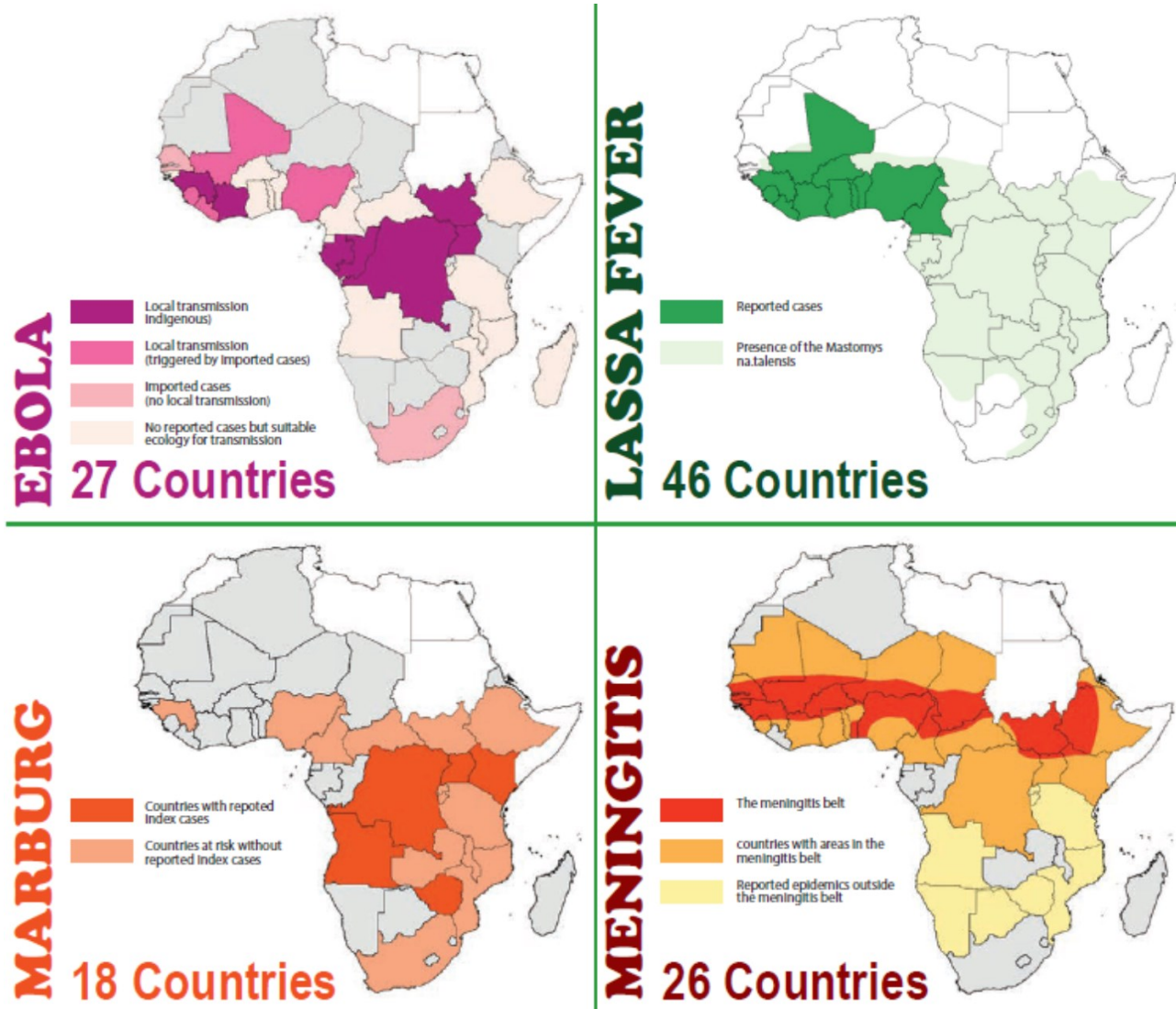


CFE: Contingency Fund for Emergencies
 Cat DDO: Catastrophe Deferred Drawdown Option
 CCRT: Catastrophe Containment and Relief Trust Fund
 CERF: Central Emergency Response Fund
 CBPF: Country Based Pooled Fund
 IDA EAW CRW: Early Action Window/Crisis Response Window

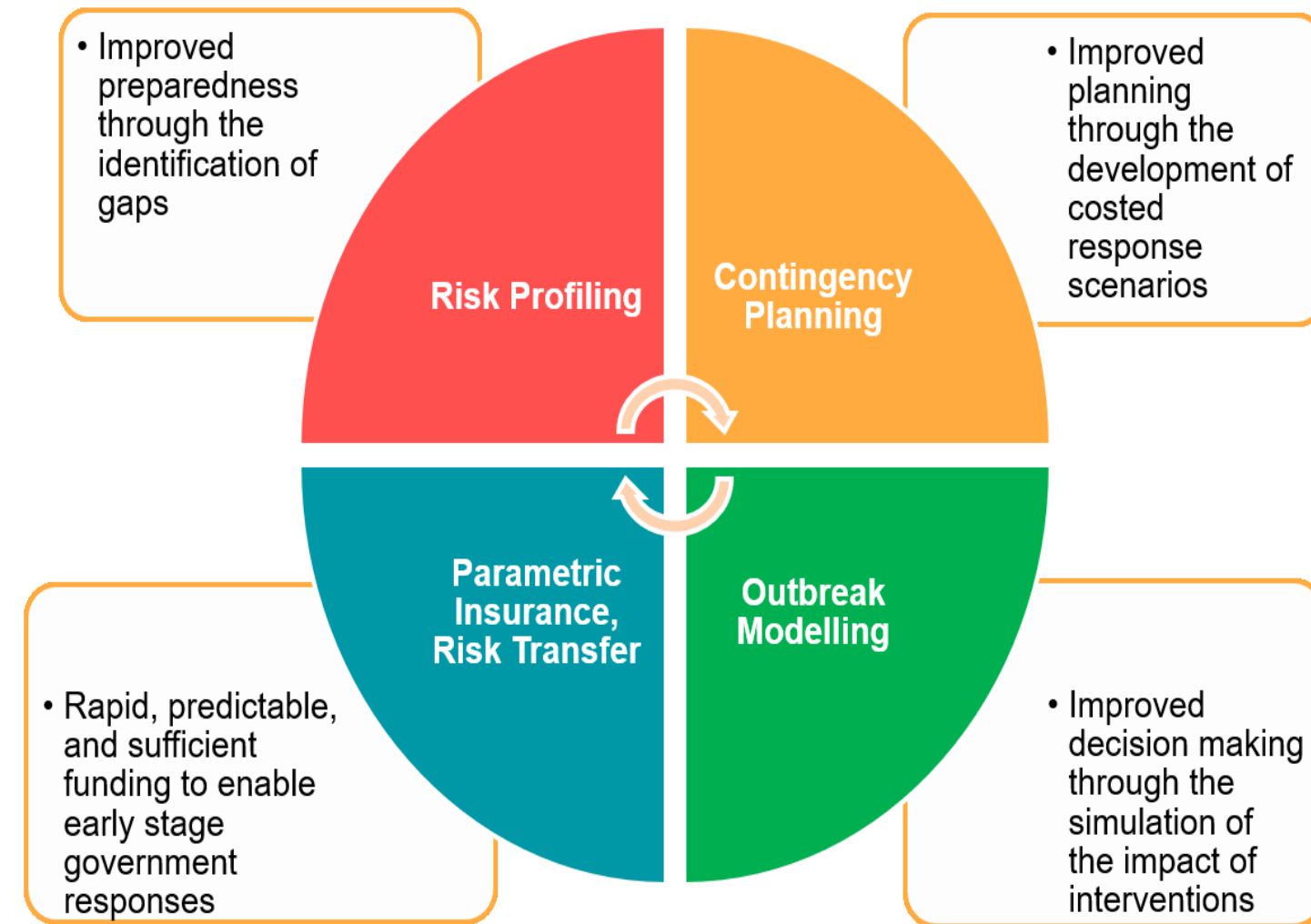
PPP partnership for risk assessment and capacity building across all ARC O&E components



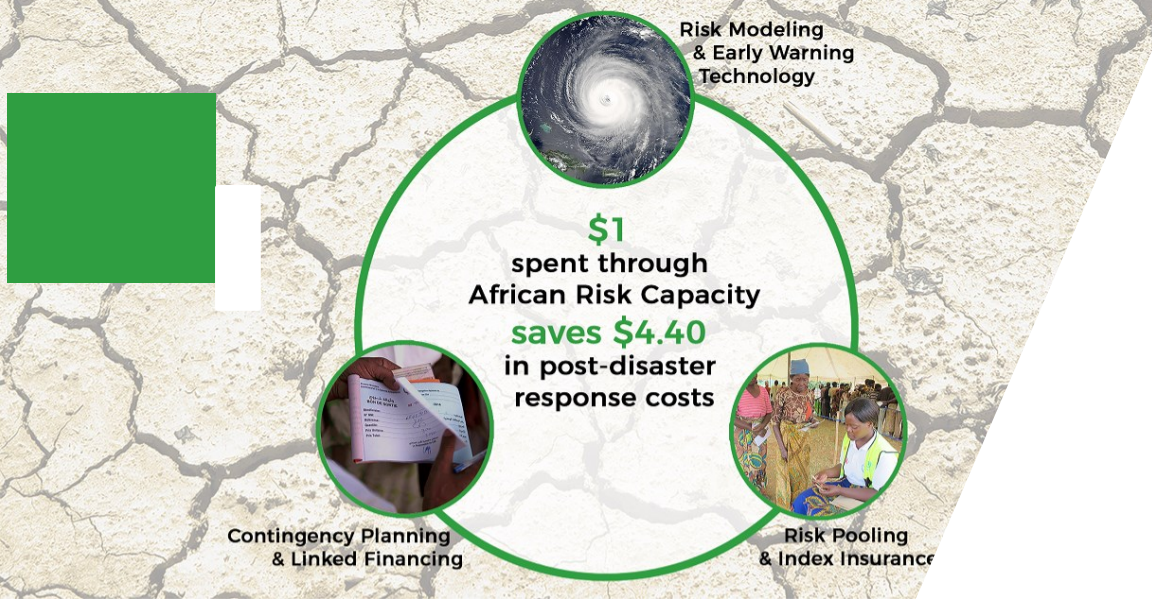
GEOGRAPHICAL DISTRIBUTION AND EPIDEMIC POTENTIAL OF PATHOGENS TO BE COVERED BY THE O&E PRODUCT



Source: WHO 2016



Source: ARC 2020



Building on the lessons learned from the other existing pandemic financing initiatives and on the DRF best practices, the O&E product aims to develop through a public-private partnership country-owned parametric insurance, with transparent triggers and clearly communicated trade offs and limitations.

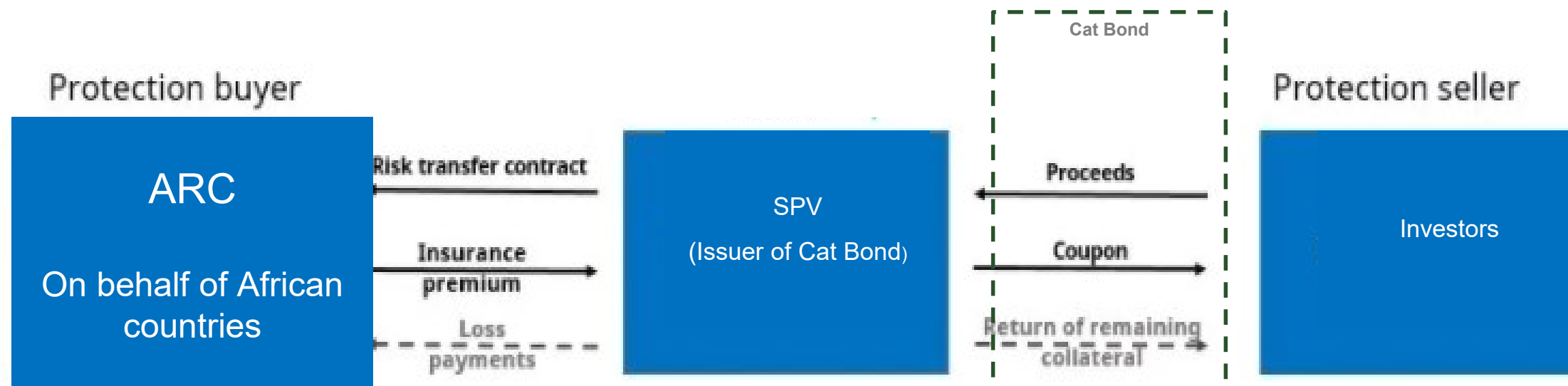
ARC's O&E product in figures

- More than 111 million people covered in 5 pilot countries
- US\$200 million target coverage
- 3 year product coverage
- US\$25 million premium needed annually to ensure coverage



TRANSFERRING O&E RISK IN AFRICA TO THE CAPITAL MARKETS

- ARC will issue a Catastrophe (Cat) Bond through the setting up of a SPV
- Cat Bonds are insurance transactions placed in the Capital Markets. Therefore, insurance is provided by several investors (ILS funds, reinsurance companies, pension funds) instead of a single or few insurance companies
- In case of an eligible event, investors will lose part, or all the capital invested in this Cat Bond
- If no event occurs, investors will recover the full amounts invested



ARC's O&E STRATEGIC PARTNERSHIPS

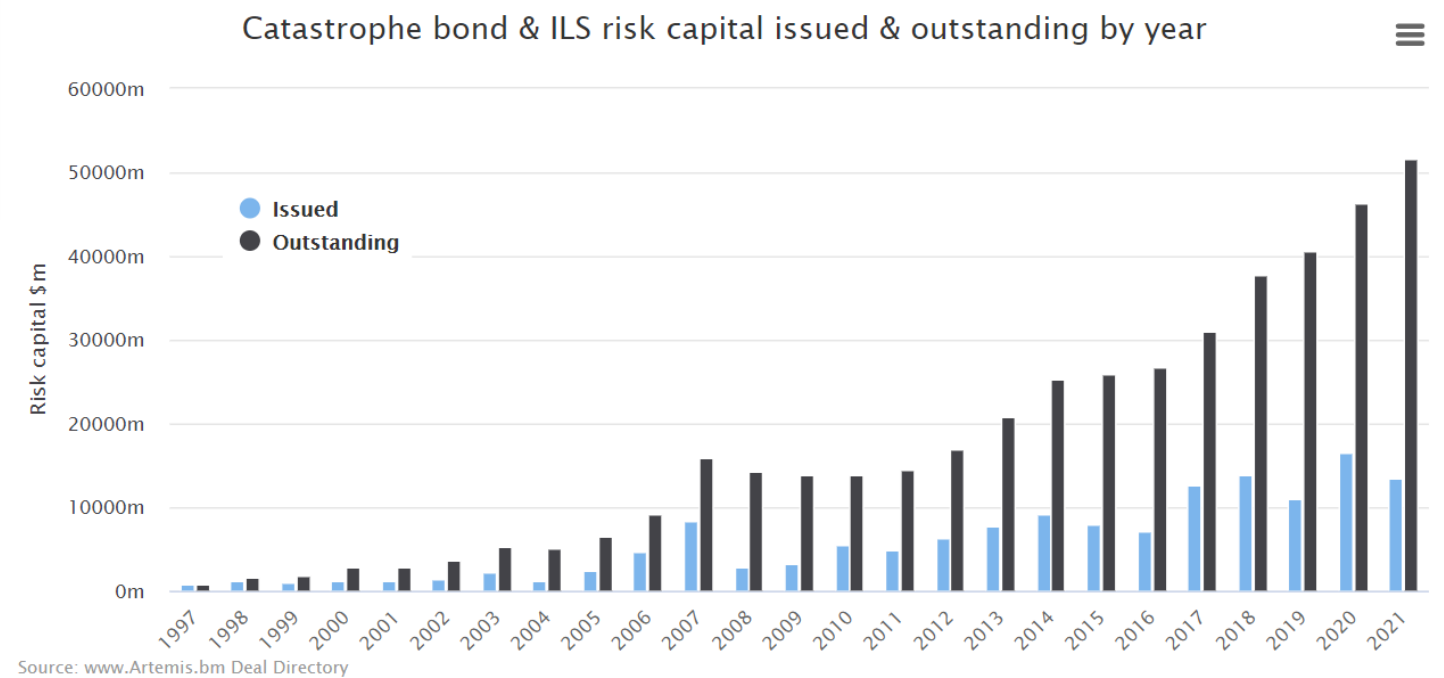
Strategic Partnerships with private sector actors spanning from technical to financial partners and academic institutions



The development of the product so far has been possible thanks to the support of SDC and Rockefeller Foundation.

Initial insurance premium support has been received exclusively from SDC so far.

Reinsurance is still the main source for risk-transferring at ARC, but other options are being analyzed, including the Insurance Linked Securities (ILS) Market.



Mobilizing capital markets will scale up financing sources for ARC's O&E initiatives

- ❑ Transparency in pricing is key for a successful program
- ❑ Resource diversification ensured by reaching out to a large number and variety of investors
- ❑ Longer coverage periods
- ❑ Efficient pricing mechanism, by pooling in more investors and competition
- ❑ Elimination of Credit Risk (applicable to ILS transactions)
- ❑ The pricing of the premiums could reflect the level of country preparedness.



Annex

Other initiatives connecting Public with Private Sector

Global Risk Financing Facility

Supporting Early Action to Climate Shocks, Disasters, and Crises



- Mobilizing funds to improve financial resilience to climate and disasters shocks



- Largest risk transferred solution by Public Sector
- Expanding to new challenges (Hydrological risks)



- Geographical expansion- Central America
- New products- excess of rain and fisheries sector



- It paid \$62mn to DRC for Ebola
- It paid \$196mn to less developed countries (IDA) for Covid-19
- No replacement after its termination in July 2020



- Increasing preparedness, resilience and cooperation in response to climate and disaster risks



- Modeling and assessment tools, integrated solutions to financial vulnerabilities

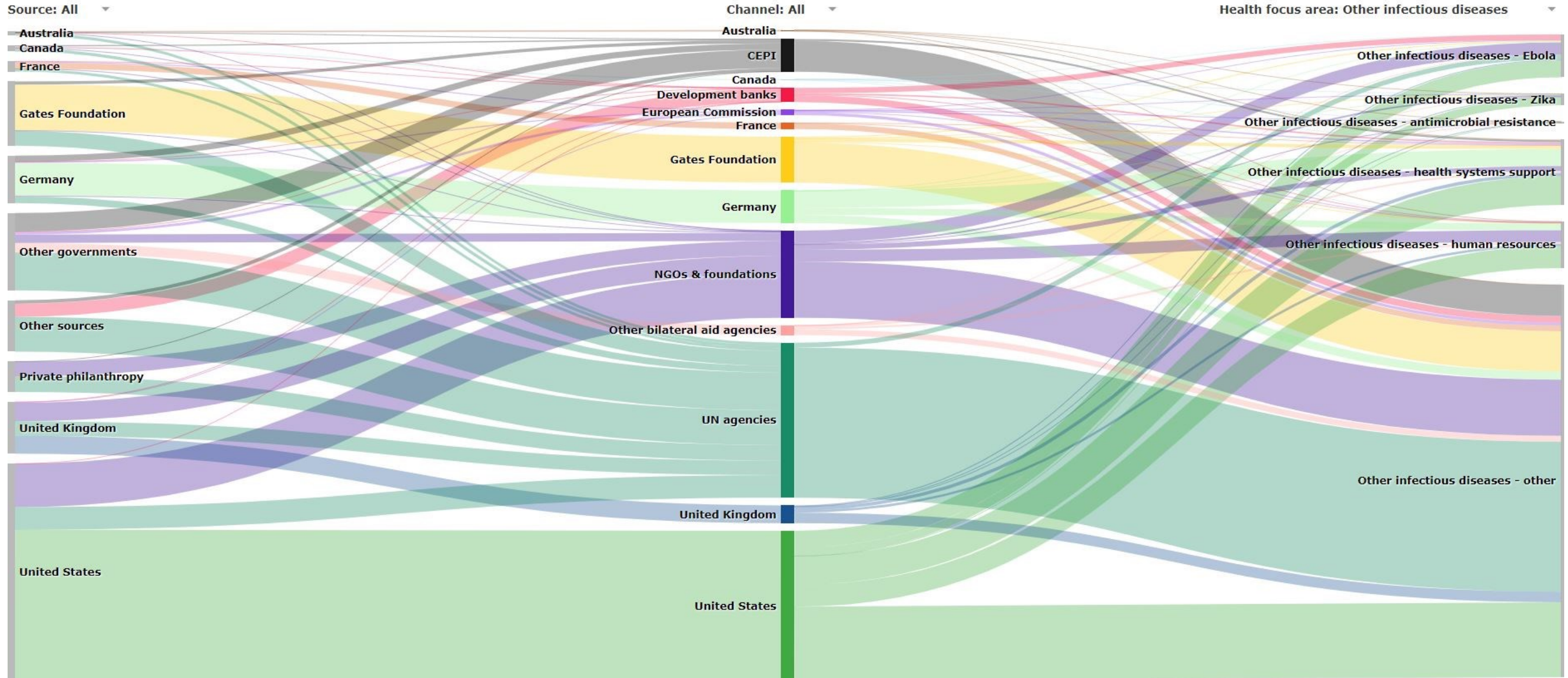


- Established in 1996 has acted as a Benchmark to other countries within the continent and outside
- It is facing current challenges in its continuity

Flows of financing of health outbreaks (2019)

Flows of global health financing

Total for 2019: \$2.4 billion in 2019 US dollars



➤ UN, US and NGOs are the channels most used for funds disbursement (70% of all funding)

PPP partnership - DISEASE SPREAD MODEL



- Type: Stochastic Metapopulation Epidemiological Compartment Models that incorporate multi-level human mobility network and ARC PI
- Model Geographic Scope: Guinea and Uganda
- Model Resolution: Admin-1 subnational
- Pathogen-specific models (Ebola, Marburg, Lassa fever, Meningococcal meningitis)
- Simulated epidemic output is produced at a daily time step
- Simulated event catalogs capture potential high- and low-frequency events
- ARC PI incorporated and informs response capacity and influences event severity

PPP partnership – SOVEREIGN INSURANCE PRODU



Positive externality	Instrument of impact	Description
Direct	Cost of coverage (insurance premiums)	The pricing of the insurance premiums could reflect the level of country preparedness.
	Claims – timing of payouts	Earlier payout conditional on good data on potential outbreak can incentivize the country surveillance system
	Eligibility for cover (underwriting)	The mandatory onboarding process that includes risk profiling and contingency planning ensures countries made preliminary steps in risk assessment and risk mitigation
Indirect	Signaling of country risk levels	The insurance market prices a country's risk and provides an indication of preparedness level



Website: www.africanriskcapacity.org

Twitter: @ARCapacity



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Confédération suisse
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Confederaziun svizra

Swiss Agency for Development
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