

## Evidence Brief 3: Sovereign Risk Pools\*

### What are sovereign risk pools (SRP)?

We have all heard of parametric insurance and of risk pooling. Sovereign risk pools combine the use of these two important concepts in risk management. Parametric insurance is a type of insurance that ‘pays out when modelled losses reach certain predetermined triggers, as opposed to traditional indemnity insurance that pays out based on actual losses’ (Martinez-Diaz, Sidner, and McClamrock 2019). Examples of triggers are a hurricane of determined magnitude or an earthquake of a particular magnitude. Risk pooling refers to the spreading of financial risks evenly among a large number of contributors. Through sovereign risk pools, “countries can pool risks in a diversified portfolio, retain some of the risk through joint reserves and capital, and transfer excess risk to the reinsurance and capital markets” (World Bank 2017).

In 2007, the Caribbean Catastrophe Risk Insurance Facility (CCRIF) was the first multi-country risk pool and the first insurance instrument to successfully develop parametric policies backed by both traditional and capital markets. The Africa Risk Capacity (ARC) followed in 2012, the Pacific Catastrophe Risk Insurance Company (PCRIC) in 2016, and the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) in 2018. In addition to risk pools, governments have a range of other disaster risk finance tools available to them (for more information see the [macro policy solutions](#) evidence brief).

### Evidence around SRP

There is very limited systematic analysis about sovereign risk pools. The main findings can be summarized as follows:

- Recently, the World Resources Institute (WRI) published a paper examining three questions: (i) To what extent are countries deploying multiple disaster risk financing instruments to cover the various layers of risk?, (ii) To what extent are governments taking advantage of disaster risk insurance solutions and why?, and (iii) To what extent are disaster risk insurance pools supporting governments in their efforts to protect poor and vulnerable people? Their findings suggest that (i) only a few countries appear to be following a risk-layering approach; (ii) despite the unique value propositions of SRPs, there are several barriers to its uptake including costs, managing unmet expectations, and the limited understanding of parametric insurance; and (iii) CCRIF, ARC and PCRIC have different mandates in terms of protecting the poor and most vulnerable people. Only ARC has the explicit mandate to support them. To date, no evidence of impact on the poor has been documented. (Martinez-Diaz, Sidner, and McClamrock 2019)
- The UK Government’s Department for International Development (DFID) commissioned the Independent Evaluation of the African Risk Capacity from 2015 to 2024. To date, only the results of their first formative evaluation have been published (Scott et al. 2017; Oxford

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Policy Management 2017a; 2017b). The evaluation team of Oxford Policy Management (OPM) is currently collecting baseline data for an impact evaluation in Senegal<sup>1</sup>, which results are expected to be available later in 2020.

- Published earlier in 2020, *Insuring against Climate Change: The Emergence of Regional Catastrophe Risk Pools* (Scherer 2020) provides a systematic study of CRIF, ARC and PCRIC. The book analyses the goals and characteristics of SRPs; their genesis; compares their characteristics and histories and zooms into their commonalities.
- In an extensive review of the literature, Schaefer and Waters (2016) state there is strong evidence (based on proper impact evaluation) that CCRIF, ARC and PCRAFI have a positive impact on catalysing risk assessments.
- According to Hillier (2018), macro- and meso-insurance models seem to offer potential to increase resilience, but more efforts are needed to ensure that payouts reach the poor and vulnerable.
- There are a few proposed frameworks for different purposes: Clarke and Dercon (2016) developed a methodology to allow quantitative analysis of the full economic cost of sovereign DRF strategies, which might include SRPs. But no specific framework to assess SRP has been developed.
- There is some anecdotal documentation that sovereign risk pools have reached government faster than international aid (see references to reports by ARC and the WB).

## Gaps and research needs

SRPs are relatively new and there is very limited evidence base. A full agenda of research could be developed. A few key questions include: Are SRPs reaching the intended beneficiaries? If so, what is the impact they are having on their welfare? How to measure basis risk? How to reduce it? How to improve the transparency of the models used to trigger?

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<sup>1</sup> In November 2019, Senegal received a payout of US\$23.1 million from ARC Limited. US\$12.5 million was given to the Government and US\$10.6 million to StartNetwork to assist in providing early action to support the people affected by drought during the 2019 agricultural season.

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