



A Glimpse of Accessible Disaster **Risk Finance Instruments** *in the Pacific*



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Pacific Island Countries (PICs) , with a combined population of approximately 10 million people¹, are amongst the small island developing states that are highly vulnerable to disasters. They are exposed to a multitude of disasters such as tropical cyclones, flooding, earthquakes, tsunamis, droughts, rising sea level, and volcanic eruptions, with varying severity and frequency across the PICs.

According to the World Risk Report 2021², a total of five (5) PICs are among the top 15 countries with the highest disaster risks. Details of these are tabulated below:

Table 1: The 5 High Risk PICs

World Risk Ranking	Country
1	Vanuatu
2	Solomon Islands
3	Tonga
9	Papua New Guinea
14	Fiji

Source: World Risk Report 2021

¹ <https://www.worldbank.org/en/results/2012/04/01/pacific-islands-disaster-risk-reduction-and-financing-in-the-pacific?msclkid=2a8967bdd0de11ec92a7cd3cabef07bc>

² <https://weltrisikobericht.de/weltrisikobericht-2021-e/>

Given their vulnerability to the impacts of climate and disaster shocks, it is imperative for countries in the region to aggressively embark on strengthening their financial resilience. PICs seeking to improve their financial resilience need to be guided by the four core principles of Disaster Risk Finance (DRF)³, which provide a framework for evaluating policy decisions and financial instruments. These core principles include: (i) **Timeliness of funding**, which emphasizes that speed matters but not all resources are needed at once; (ii) **Disbursement of funds**, which highlights that how money reaches the intended beneficiaries is as important as where it comes from; (iii) **Disaster risk layering**, which clearly points out that no single financial instrument can address the entire spectrum of risk exposure; and (iv) **Data and analytics**, which advocates that the right information is required for governments to make sound and informed financial decisions. The effectiveness of the above core DRF principles can only be realized when applied against a suite of DRF instruments.

Disaster Risk Finance (DRF) Instruments Available to PICs

A number of DRF instruments have now become available to the PICs to assist in improving their financial resilience against the impacts of disasters. These can be categorized into risk retention and risk transfer instruments.

Risk retention instruments refer to those where risks in terms of disaster financing costs are retained by governments, whilst risk transfer instruments refer to those where governments opt to transfer disaster risks to parties such as the private sectors. Risk retention instruments that are currently accessible to PICs include, but are not limited to national contingency funds, national emergency budgetary allocations, budget reallocations, lines of contingent credits / financing. Risk transfer instruments also include insurance, which may take the form of traditional insurance or parametric insurance such as PCRIC's products. Instruments such as international assistance cuts across both categories. The above instruments are presented in Table 2 below. A more detailed explanation of the various instruments that are accessible to the PICs can be sourced from the Pacific Islands Forum Secretariat (PIFS) report⁴.

³ World Bank. 2017. Disaster Risk Finance: A Primer. Washington D.C.: World Bank.

⁴ <https://www.forumsec.org/wp-content/uploads/2021/06/An-Overview-of-Climate-and-Disaster-Risk-Financing-Options-for-Pacific-Island-Countries-PIFS-June-2021.pdf>

Table 2: Examples of Risk Retention and Risk Transfer DRF Instruments Accessible to PICs

Risk Retention Instruments	Risk Transfer Instruments
National Contingency Fund	Parametric Insurance <ul style="list-style-type: none"> • Pacific Insurance and Climate Adaptation Program's (PICAP) (micro / meso). • PCRIC's sovereign insurance (macro).
National Emergency Budget	Traditional Insurance (e.g. to insure public assets)
Budget Re-Allocation	
Lines of Contingent Credits / Financing e.g. <ul style="list-style-type: none"> • World Bank's policy-based Catastrophe Draw-down Option (CAT-DDOs). • World Bank's Contingent Emergency Response Component (CERCs). • Asian Development Bank's policy-based Contingent Disaster Financing in the Pacific (CDFP). • International Monetary Fund's (IMF) Rapid Credit Facility (RCF). • Post disaster credit facilities (domestic and external) 	
International Assistance	

Risk Retention Instruments

Budget Instruments

National Contingency Fund (NCF) and National Emergency Fund (NEF) refer to budgets that are annually appropriated by governments for emergency or unforeseen expenditures. The amounts appropriated for these purposes are in accordance with the requirements of their relevant acts, in most cases, the national governments' Finance Acts and Financial Regulations. Examples of PICs who have established a NCF / NEF include Tonga, whose annual Contingency Fund is equivalent to 5% of annual budget, Samoa, with an Unforeseen Expenditure appropriation equivalent to 3% of the total expenditure program per annum and Fiji with lump sum of FJD 800,000 allocated towards Disaster Relief and Rehabilitation.



Image Supplied by the Fijian Government

Budget Re-Allocation

Budget re-allocation is a process that governments undertake post disaster, to re-divert previously approved budget items towards other budgetary items that will assist with disaster relief, recovery and reconstruction. A lot of care is exercised when budget re-allocations are carried out, to ensure that movement of funds across government budget lines are within the initially approved budget by parliaments / legislature.

Pre-Arranged Contingent Credits

Pre-arranged contingent credits are loans that are set up in advance and can be activated on very short notice following a disaster. The activation or disbursement from a loan usually requires a particular condition being met, such as the declaration of a disaster by the affected government.

Policy-based contingent credits such as those offered by the World Bank (WB) (CAT-DDO) and the Asian Development Bank (ADB) CDFP have a prior policy action attached to it. The prior actions are mutually agreed between the Banks and the countries and would need to be satisfied by the borrowing country before the loans can be drawn down. Both the CAT-DDO⁵ and CDFP have a pre-specified drawdown trigger, and is typically the member country's declaration of a state of emergency. Countries which have accessed the WB CAT-DDOs include Tonga, Samoa, Vanuatu and Fiji whilst those that have accessed the ADB CDFP include Cook Islands, the Federated States of Micronesia (FSM), the Marshall Islands, Palau, Samoa, Solomon Islands, Tuvalu and Tonga.



Image Supplied by the Government of Samoa-DMO/NEOC

⁵ productnotecatddoidaenglish2018.pdf (worldbank.org)

The World Bank's CERC is a contingency financing mechanism available to borrowers to gain rapid access to the Bank's financing to respond to a crisis. It is only accessible to countries that are a member of the World Bank Group's International Development Assistance (IDA) institution.

The IMF's RCF provides low-access, rapid, and concessional financial assistance to low-income countries facing an urgent balance of payment need, without ex post conditionality, when a full program is not deemed necessary or feasible and the need is urgent. It can provide support in a wide variety of circumstances, including shocks, natural disasters, and emergencies resulting from fragility⁶.



Image Supplied by the Tonga National Emergency Management Office

Post Disaster Borrowings

These include both domestic and external credits, which governments would tap if pre-arranged credits were not in place. The mobilization of ex-post contingent credits takes some time as the borrowing governments would need to provide all the required information to the lender to support credits that are required.

⁶ <https://www.imf.org/en/About/Factsheets/Sheets/2016/08/02/19/55/Rapid-Financing-Instrument>

International Assistance

This refers to government, non-charitable organisations or international aid for disaster relief. Past experiences have shown that people living in disaster prone areas expect public support such as financial aid after major disasters.

Risk Transfer Instruments

Parametric Insurance

Parametric insurance (sometimes known as event-based insurance) is a non-traditional insurance with pre-defined triggers. The trigger for a payout can be based on natural hazard parameters such as wind speed, magnitude of an earthquake, rainfall measurements etc. or based on “modelled loss” which is an estimate of the financial loss from a disaster according to a catastrophe model.

The implementation of parametric insurance in the region has encountered a number of challenges. Apart from the under developed or non-existence of insurance markets in the region, other challenges identified include the general lack of awareness and training on parametric insurance, the lack of technical capacity in terms of actuarial skills in the region and basis risks in terms of lack of good data to calculate modelled losses after a disaster.

Parametric insurance currently available in the region include those that are offered by PICAP and PCRIC.

PICAP Parametric Insurance

PICAP offers micro / meso parametric insurance products, which aim to provide immediate financial relief to vulnerable communities following a tropical cyclone (TC). Targeted communities include farmers, fishers and small businesses. The product covers for cyclones and floods, with the aim of undertaking the payout within 14-21 days following a tropical cyclone. PICAP's parametric insurance is operationalized through Fiji Care Insurance, a local Fijian insurance company.

PCRIC Sovereign Parametric Insurance

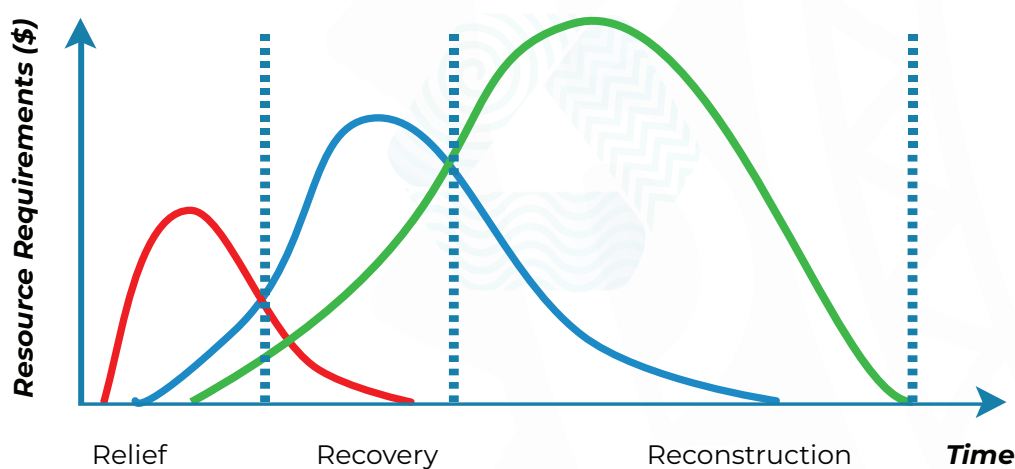
Currently, PCRIC offers macro parametric insurance products to governments under its captive insurance structure. This is highly likely to be diversified into non-sovereign products given its recently approved structure of becoming a segregated cell entity. In-depth details on PCRIC's parametric insurance products can be accessed on Knowledge Product 3: "*Understanding the Uniqueness of the Pacific Catastrophe Risk Insurance Company (PCRIC) Parametric Risk Pool Insurance Policies.*"

Insurance for Public Assets

This refers to insurance of major public assets that are administered by governments or state-owned entities. PICs could insure these assets with either a local or international insurance company, depending on the size of their insurance markets.

Sequencing the utilization of the above DRF instruments is guided by four core principles, which include (i) timeliness of funding; (ii) disbursement of funds; (iii) disaster risk layering; and (iv) data and analytics. In terms of timeliness of funding, World Bank (2017)⁷ states that understanding the timing of needs is essential. Therefore, in the aftermath of a major disaster, governments will not require the money needed for the entire **reconstruction** program all at once. While immediate liquidity is crucial to support **relief** and early **recovery** operations, the government has more time to mobilize the larger resources for the reconstruction program as shown in Figure 1 below.

Figure 1: Liquidity Needs Over Time Post Disasters



Source: World Bank, 2010⁸

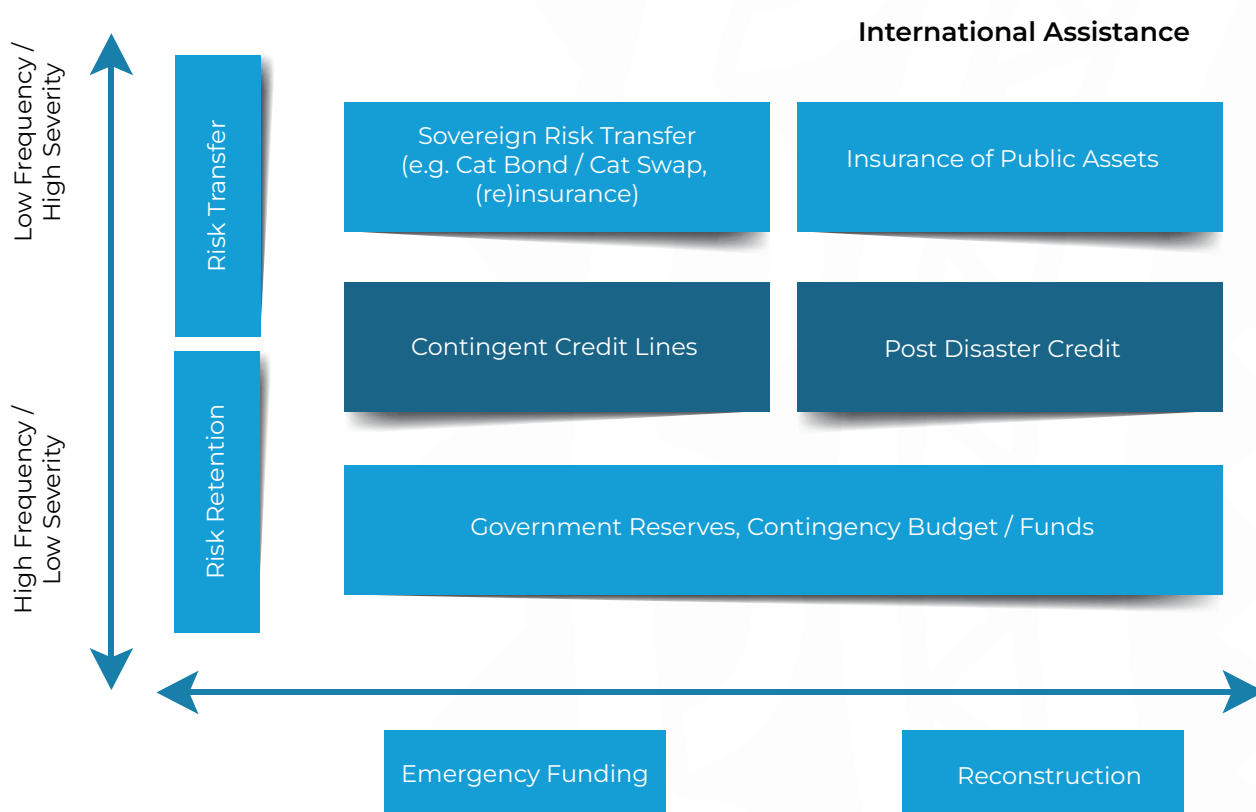
⁷ World Bank. 2017 Disaster Risk Finance: A Primer.

⁸ World Bank, 2010. Financial Protection against the State against Natural Disasters – A Primer.

From PCRIC's perspective, the liquidity from its insurance payout is more relevant to the relief phase of a disaster, given that a maximum of 10 days is allocated to complete the processing of the cash payout to its client countries. However, it is at the discretion of governments to spend the insurance proceeds towards speeding up recovery and reconstruction.

Whilst the instruments in Table 2 above are accessible to the PICs, it is also critical for them to understand that the payouts from these instruments are not all needed at once. They would need to be layered subject to the frequency and severity of the disaster that is being encountered as depicted in Figure 1 below.

Figure 1: Risk Layering Based on Disaster Frequency and Severity



Source: World Bank 2010⁹

⁹ *Financial Protection Against Natural Disasters - From Products to Comprehensive Strategies.pdf

A 'risk layering approach' is the most cost-effective solution for financing disaster risk. As such a Disaster Risk Financing Strategy (DRFS) prioritizes cheaper sources of funding for events of different severity, ensuring that the most expensive instruments are only used in exceptional circumstances. For example, the type of insurance that is offered by PCRIC may provide cost-effective cover against relatively extreme events, but it may be inefficient and costly to protect against low intensity and recurrent events. For such events, a dedicated contingency fund that 'retains' this lowest layer of risk may be a more appropriate solution. A country may also have access to a contingent credit facility, which is typically used for events of 'medium' severity.

It is therefore important for PICs to exercise some care when applying the timeliness and risk layering core principle of DRF immediately after disasters. Having a national disaster DRFS would provide guidance to countries in deciding the best mix of DRF instruments that are best suited to address the various levels of disaster risks they encounter during a disaster. Finally, it is also critical to note that the various sources of funding discussed above should not be seen as alternatives to each other, but complement each other as part of a comprehensive and cost-effective DRFS.



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