DESCARTES

Introduction to Parametric Insurance

MARIM

December 2025

Descartes Underwriting

The future of insurance against a changing climate & risk landscape

Descartes' Value Proposition

Next Gen Underwriting

Structured as a Managing General Agent, we write **parametric policies** on **A+ rated paper** supported by best-in-class (re)insurers.

Deep expertise in natural risk

Supported by an industry **leading team of 160+ PhDs, natural risk modelers**, data science engineers, software engineers and insurance professionals

Data-driven approach

We incorporate **advanced technology** (satellites, sensors) and machine learning to **model the underlying phenomena directly**, better capturing trends and climate change impacts

Diverse global footprint

Collaboration with **brokers** around the world to protect **their corporate & public sector clients** against the full spectrum of Nat Cat, extreme weather and emerging risks.

To support the financial resilience of corporates & governments worldwide

Large capacity:
$70M capacity per parametric policy
Up to $200M in some cases

20+ natural perils covered
Across all continents

Full-financial impact
including non-damage business interruptions

14 global offices
Across 10 countries

Trusted by more than
350+
corporates & public entities

Core product offering *(non exhaustive)*

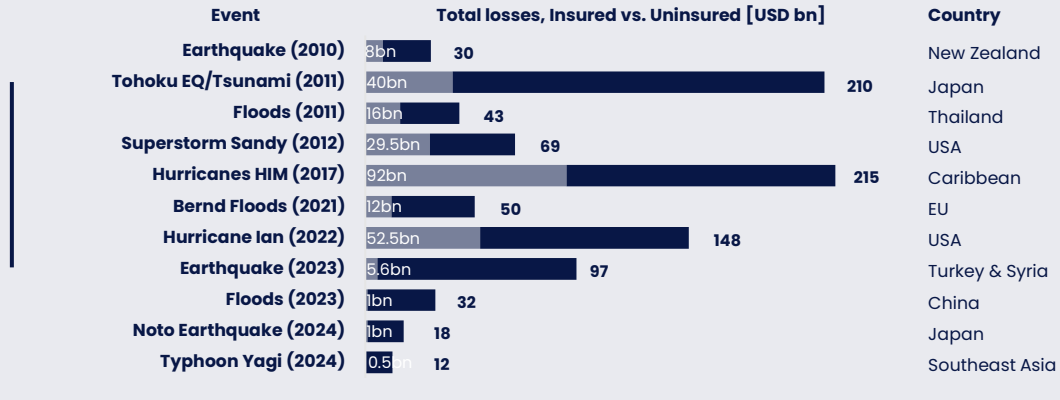
- Cyclone
- Renewable energy yield
- Earthquake
- Drought
- Agriculture yield
- Frost
- Wildfire
- Flood
- Tornado
- Tsunami
- Water level volatility
- Hail
- Excess rainfall
- Wave height
- NDBI

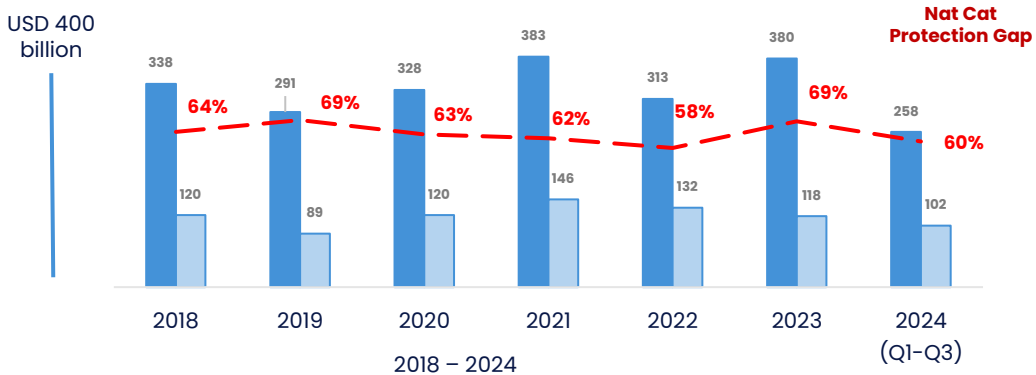
Meet Descartes' Commercial Team

A diverse global footprint that keeps us close to brokers, clients & their risks

The Protection Gap for Natural Catastrophe & Weather Perils…

Globally 70% of Nat Cat economic losses since 1980 were uninsured





2018 – 2024
Global Economic Nat Cat Losses vs Global Insured Nat Cat Losses

How Parametric (Re)insurance works

Covering specific event-based exposures & providing fast payouts

Understanding Parametric Covers in 3 Easy Steps:

Cover for direct and/or indirect **Financial Loss** based on the **occurrence of a specified event** such as a Typhoon or Earthquake, using parameters such as 'wind speed' or 'Earthquake Magnitude'.

1

Design of a location specific cover:

- Collect client information on location, PDBI values, historical losses and any loss mitigation.
- Find and utilize external, reputable third-party data sources
- Produce index & payout structures based on realistic events & client feedback

2

Site-specific monitoring of perils:

- Leverage radar, satellite and/or IoT sensor data
- This data is used to confirm the payout once an event occurs

3

Financial recovery within days:

- Accelerated claims process via objective event report
- Process multi-million-dollar payouts immediately to boost liquidity

What happens in the event of a claim - Tropical Cyclone?

Parametric Tropical Cyclone Claims Process

Cyclone Occurs

The **Insured** notifies their **broker** of a potential loss

Data Collection

Calculation Agent: Data retrieval from data provider of Tropical Cyclone event

Timeline: Within 10 days of event occurring

Event Report

Calculation Agent: Confirms to Insured eligibility of event and maximum corresponding payout

Timeline: Within 5 days of data collection

Declaration of Loss

Insured: Informs insurer of having suffered financial loss and request to claim under policy

Time: Within 30 days of event report*

*(*Insured may claim additional losses up to 1 year)*

Payment Issued

Insurer: Pays parametric loss

Timeline: within 10 days of receipt of declaration of loss and event report.

Example of the typical parametric claims process

Hurricane Ian Makes Landfall

28 September 2022

15 days

Payment Received

5 days after client submitted the Declaration of Loss

Key Advantages of Descartes Parametric Insurance Solutions

Enhanced Cover

Fresh Alternative Capacity

Flexible Structure, fully customized to clients needs

Cover for Full Financial Impact

Transparency & Certainty

Data-driven certainty of Cover & Payment

Transparent, straight-forward wording

Reduced Premium Volatility

Swift Indemnification

Rapid Access to Funds following event

No Manual Loss Adjustment

Minimal Risk of Dispute & Litigation

Driven by objective data and real-time monitoring from IoT, radar, and satellite imagery, parametric insurance provides a means to guarantee liquidity, via swift, direct payout, following a qualifying event.

Parametric Insurance in Action

Case Study I Telecommunications Firm Philippines

CASE STUDY EXAMPLE

Pain Point: Exposure of Transmission and Distribution Lines

- Client is facing prolonged renewal discussions amidst market fluctuations.
- Long and complex claim process diverts focus away from core operations.

Product Features

Cat-in-a-Circle

Occurrence of a tropical cyclone within single or multiple circles (of pre-determined distance) centered around the insured location(s)

Index

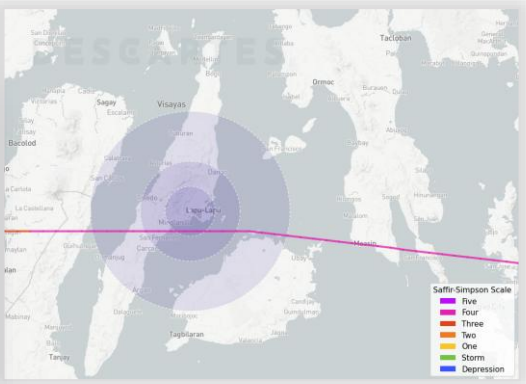
Distance to the tropical cyclone track & wind speed

Loss Calculation

Payout based on tropical cyclone track distance to the location & maximum sustained wind speed

HISTORICAL BACKTESTING

Saffir Simpson Category	15km	30km	60km
3	25%	15%	10%
4	50%	25%	15%
5	100%	50%	50%



Typhoon Odette (Rai), 2021

- Cat 4 wind-speed passed through within 15km of insured location
- Triggered 50% of the limit

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Parametric Rainfall Cover

Case Study I Agriculture in Johor, Malaysia

CASE STUDY EXAMPLE

Pain Point: Client's paddy plantation flooded due to excessive rain

- The flooding caused a temporary cessation of farming activities across affected regions
- Substantial disruption to food security

Product Features

Daily Cumulative Rainfall

Risk of excessive rainfall causing crop losses due to submergence of extensive agricultural lands

Index

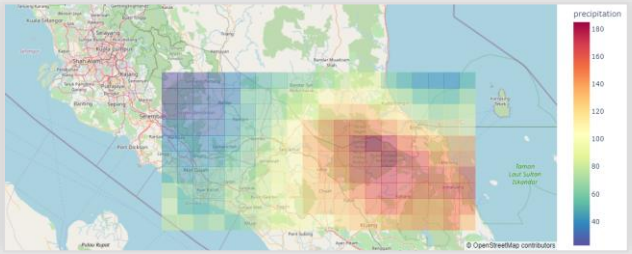
Daily cumulative rainfall recorded at the client's location

Loss Calculation

Daily rainfall level calculated against pre-agreed payout levels. Once triggered, payout can be made swiftly

HISTORICAL BACKTESTING

Daily Cumulative Rainfall (mm)	Payout (% of the Annual Aggregate Limit)
100	10%
120	50%
140	75%
≥ 160	100%



Source: NASA

- 185mm of rain within 24 hours in Segamat, Johor in 2023
- Triggered 100% of the limit

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Cyclone Harold – April 2020

- **2nd April**: Hits the Solomon Islands as Cat 1
- **5th April**: Escalates to a Cat 5 and makes landfall in Vanuatu
- **8th April**: After impacting the south of Fiji as a Cat 4, reaches Tonga having re-intensified to Cat 5

Image source: NASA, NOAA

Widespread financial loss caused	
Vanuatu	Caused **USD 617m (61% of GDP)** in economic impacts according to the World Bank Rainfall up to **450mm** caused widespread flooding
Fiji	**FJD 66m** io infrastructure, including roads, power lines and jetties
Tonga	Tonga's government estimated the cost of the damage caused by Cyclone Harold to be more than **USD 111m**

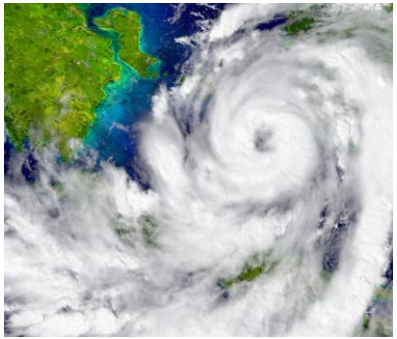
Data Sources: Department of Foreign Affairs and Trade, Australian Government, Joint Typhoon Warning Centre (JTWC), Bureau of Meteorology, Australian Government, Radio New Zealand, World Bank

Parametric Payout to client in Tonga

Timeline from Impact to Payment:

Data is collected & payout amount calculated

8 April (Day 0)	11 April (+3 days)	23 April (+12 days)	1 May (+8 days)
Cyclone Harold impacts Tonga	**Cyclone Harold ends**	**Client notified of payout**	**Payment submitted**



Payment submitted just **20 days** after Cyclone Harold

Thank you

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