Swiss Re

Insuring the Future: Innovative Coverage Solutions for Climate-Ready Communities

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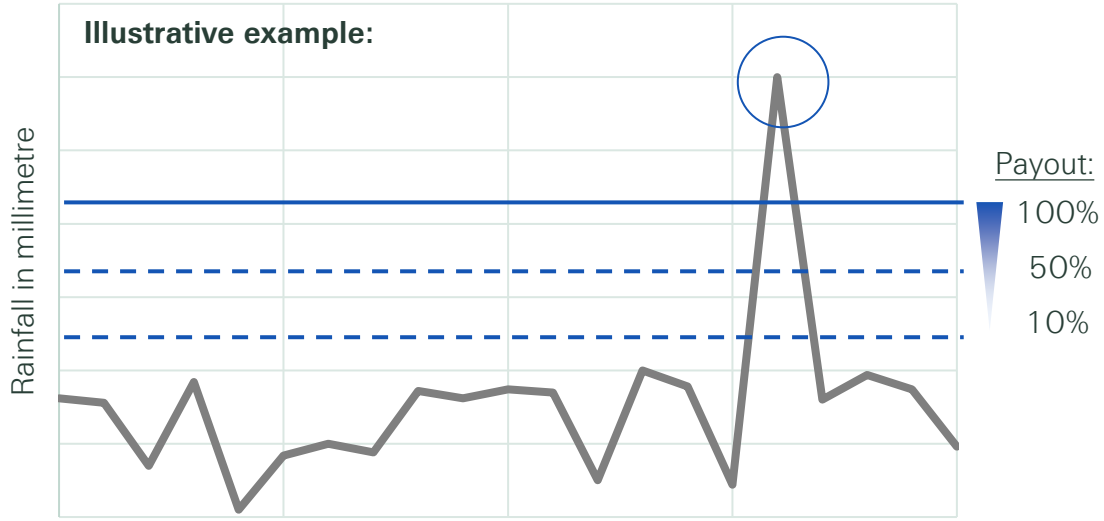
Parametric insurance

Parametric insurance relies on the **measurement** of a natural phenomenon or index (i.e., the parameter)

Payout of a pre-defined amount is made when the contractually agreed **threshold** parameter is **exceeded** (e.g., amount of rainfall, wind speed)



Parameterisation allows for **fast payouts** (within a few weeks, sometimes as fast as ten business days)

No loss assessment required after an insured event occurs (but proof of loss may be required)

Flexibility to use funds to address a wide range of needs (e.g., financing of rapid intervention measures)

Enables innovative approaches to **cover challenging risks** (e.g., emergency costs, loss of revenues, etc.)

The parameter(s) used are based upon auditable third-party data, which grants **transparency** to all parties

Leveraging **state-of-the-art technology** and **high-quality data sets** for precise modelling and monitoring

Basis risk needs to be considered because insurance payout may deviate from actual loss

Parametric flood footprint trigger

Addresses flood losses at a granular level: the insurance structure reflects the impact and damage caused by floods at each insured location

SETTING THE SCENE

Traditional flood insurance may not be available for your risk, and you hesitate to rely on parametric solutions that depend on indirect measurements, such as rainfall amounts?

Our parametric flood footprint coverage is an innovative advancement that does not rely on indirect flood proxy data, but on actual flood observations at the highest granularity.

We analyse true flooding based on state-of-the-art radar satellite technologies and, therefore, can limit basis risk by a margin. You can benefit from a high customisation to your critical sites and payments within a few weeks. Additionally, you can make use of flood footprints for your own emergency operations.

Physical assets can be protected in addition to derivative economic interests, such as emergency expenses or supply chain challenges.

OUR SOLUTION

Trigger event: parametric insurance will be triggered if pre-defined insured locations are flooded, or the flood exceeds critical area thresholds.

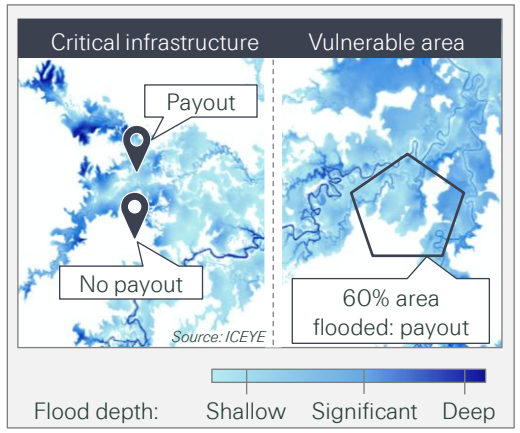
Data provider: the extent of the peak flood is provided by an industry-leading independent data provider, like ICEYE Oy, Floodbase and others.

Payout function: stepped or linear payout function reflects the impact of the event. The function is tailored to your specific needs and budget.

Claims calculation: sum of all affected locations or fraction of flooded area up to agreed insurance limit will be paid out within a few weeks. The remainder of the annual limit remains available for future events during the policy term.

Example:

Number of trigger locations flooded or % area of interest flooded	Payout (% of limit)
0–5	0%
5–10	20%
10–15	40%
15–20	60%
20–25	80%
>25	100%



BENEFITS

Fast payout: meeting liquidity needs and accommodating urgent interventions

Transparent process: claims are paid based on objective measurements of the event. Flood footprint data will be provided to the insured

Data from state-of-the-art technology: leveraging independent, innovative high-resolution data from renowned agencies to ensure precise payouts and minimise basis risk

Flexible use of the funds: payouts can be deployed to optimise recovery as deemed most suitable by the insured

Customisation and broader coverage: tailoring solutions to fit individual needs and budgets

Parametric excess precipitation trigger

A transparent and tested solution: the insurance structure reflects the impact caused by too much rainfall or snow over an area of interest

SETTING THE SCENE

Traditional flood insurance is not available for your risk, and you are looking to implement a simple, but effective solution that relies on precipitation measurements?

This is where Swiss Re's parametric excess rain (XSR) and snowfall coverage is an attractive supplement or alternative to standard indemnity insurance products with a proven track record. Thanks to precise global precipitation measurements from renowned meteorological agencies and your own historic claims data, we derive a reliable correlation between precipitation amounts and incurred damages. Our XSR structures are highly customisable and pay within a few weeks.

Precipitation amounts can be employed as proxy for other perils, such as floods, and utilised to cover physical assets, emergency expenses or as non-damage business interruption coverage independent from classic indemnity insurance.

OUR SOLUTION

Trigger event: parametric insurance will be triggered if a pre-defined rainfall or snowfall amount is exceeded over a specified area of interest.

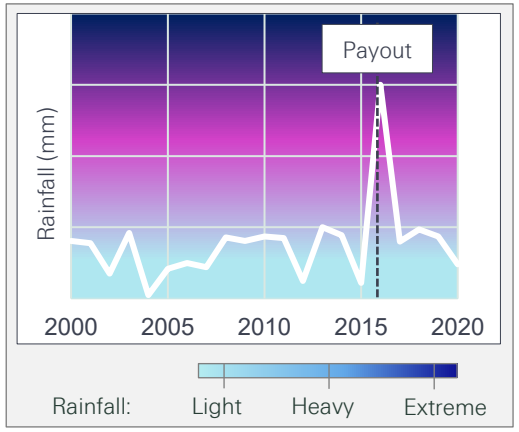
Data provider: daily rain or snow data from globally available satellite-based measurements or local weather stations.

Payout function: stepped or linear payout function reflects the impact of the event. The function is tailored to your specific needs and budget.

Claims calculation: sum of all affected insured areas – up to agreed insurance limit – will be paid within a few weeks. The remainder of the annual limit remains available for future events during the policy term.

Example for rainfall:

Accumulated rainfall (mm)	Payout (% of limit)
0–50	0%
50–70	20%
70–90	40%
90–110	60%
110–130	80%
>130	100%



BENEFITS

Fast payout: meeting liquidity needs and accommodating urgent interventions

Transparent process: claims are paid based on objective measurements of the event

Globally available data: relying on a tested, simple, independent, and publicly available parameter provided by renowned satellite-based or station measurements

Flexible use of the funds: deploying the payout to optimise recovery as deemed most suitable by the insured

Customisation and broader coverage: tailoring solutions to fit individual needs and budgets

Parametric earthquake intensity trigger

Addresses earthquake losses at a granular level: the insurance structure reflects the impact caused by earthquake shaking at each insured location

SETTING THE SCENE

Insufficient exposure information or high self-retentions can make traditional earthquake insurance unavailable or unaffordable, and you would like to deploy a solution that corresponds to the true impact at your critical locations?

This is where Swiss Re's parametric earthquake shaking intensity coverage is an attractive supplement or alternative to standard indemnity insurance products. Combining reliable and accessible earthquake data (PSA, PGA or MMI) at your points of interest - provided by world-renowned agencies - with our earthquake expertise to develop structures customised to your needs and budget. Our parametric intensity solutions have a proven track record ensuring payments within a few weeks, while at the same time minimising basis risk.

OUR SOLUTION

Trigger event: parametric insurance will be triggered if pre-defined insured locations experience strong earthquake shaking intensities.

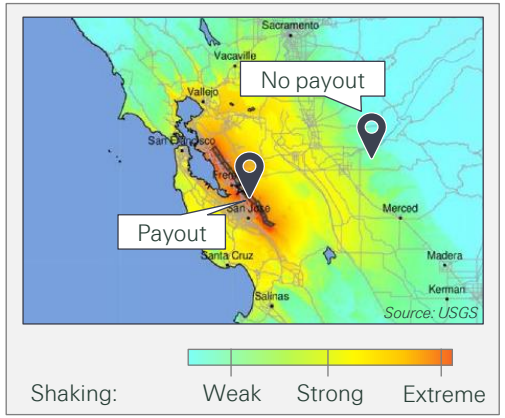
Data provider: the intensity of the earthquake is provided by an industry-leading, relevant and independent agency, like the USGS and others.

Payout function: stepped or linear payout function reflects the impact of the event. The function is tailored to your specific needs and budget.

Claims calculation: sum of all affected insured locations – up to agreed insurance limit – will be paid within a few weeks. The remainder of the annual limit remains available for future events during the policy term.

Example:

EQ Intensity PSA 0.3s (% of g)	Payout (% of limit)
30–45	0%
45–60	20%
60–75	40%
75–90	60%
90–115	80%
>115	100%



BENEFITS

Fast payout: meeting liquidity needs and accommodating urgent interventions

Transparent process: claims are paid based on objective measurements of the event

Globally available data: leveraging independent, publicly available high-resolution data from renowned agencies to ensure fair payouts and minimise basis risk

Flexible use of the funds: deploying the payout to optimise recovery as deemed most suitable by the insured

Customisation and broader coverage: tailoring solutions to fit individual needs and budgets

Parametric extreme temperature trigger

Addresses impact at a granular level: the insurance structure reflects the impact caused by extreme temperatures at each insured location

SETTING THE SCENE

Extreme temperature events can be widely disabling for a society and its economy and can happen virtually everywhere. The risk of cold- or heatwaves is often overlooked and uninsured due to its slow-onset nature and, thus, seemingly non-catastrophic impact.

Are you looking to extend the limits of insurance and benefit from the discretionary use of payments?

This is where Swiss Re's parametric extreme temperature coverage can offer attractive benefits. Leveraging climate expertise and close partnerships with state-of-the-art technology partners, we develop triggers that reliably reflect specific financial needs during extreme temperature events. Our temperature triggers are highly customisable and pay within a few weeks.

Agricultural assets, energy or transportation infrastructure, your employee's working conditions can be protected, as well as derivative economic interests, such as emergency expenses or supply chains.

OUR SOLUTION

Trigger event: parametric insurance will be triggered if the insured locations experience extreme temperatures for a pre-defined consecutive number of days.

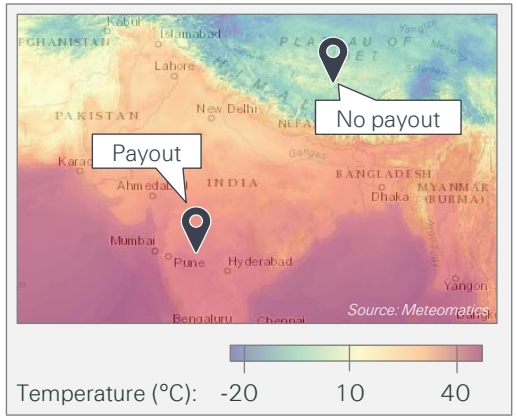
Data provider: temperature data is provided by independent meteorological agencies or relevant, industry-leading private partners, like Planet and others.

Payout function: stepped payout function reflects the impact of the event. The function is tailored to your specific needs and budget.

Claims calculation: sum of all triggered locations – up to agreed insurance limit – will be paid within a few weeks. The remainder of the annual limit remains available for future events during the policy term.

Example for heatwave:

Consecutive days with maximum T>40°C	Payout (% of limit)
<4	0%
4	25%
5	50%
6	75%
>7	100%



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INSURING ASSETS EXCLUDED FROM THE TRADITIONAL INDEMNITY POLICY

The challenge

- Like many cities, this Western Canadian municipality owned a network of buried utilities for drinking water, sanitary sewer, and storm water that were uninsured under the traditional indemnity policy.
- Western Canada has significant seismic exposure due to its proximity to the Cascadia subduction zone in the Pacific Ocean and many regional fault networks. There is a 37% chance that a Cascadia megathrust earthquake of 7.1+ magnitude in this fault zone will occur in the next 50 years.
- Buried utilities, particularly older pipes that are made with brittle materials, are highly susceptible to damage from seismic shaking and liquefaction. The City wanted protection from this unseen risk.

The solution

- The City purchased our parametric insurance product 'QUAKE' to supplement their traditional earthquake insurance and provide protection for these uninsured assets. The solution provides quick payment and flexibility in how funds can be used.
- The structure provides a dynamic payout that increases with the intensity of shaking across their entire utility network.
- The flexible, ground-up proceeds of the parametric cover can be used beyond the utility network, including extra emergency expenses or paying for the deductible of their traditional policy.

The impact

The City first purchased the parametric earthquake policy in 2024 and renewed the policy in 2025. A testament of value to the client as an effective risk mitigant.

The funds from a parametric cover can help address immediate expenses associated with a catastrophic earthquake, reducing financial stress on the community.

Swiss Re's QUAKE product can be customised to meet client specific priorities, budget and exposure. For this Western Canadian city, this is an affordable solution, providing more coverage and flexibility.

Swiss Re

Thank you!

Contact us

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