

BRIDGING THE GAP

Unlocking private capital to build resilience



The climate crisis affects us all, but the impact is not equal.

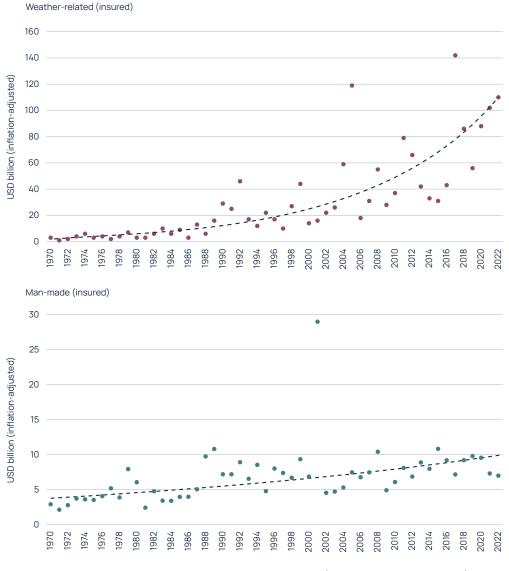


Natural disasters are increasing in intensity and frequency all over the world.

Climate change is a global crisis that is affecting populations today. In 2022, countries all over the world were subjected to heatwaves, wildfires, drought, extreme winter storms with hurricane-force winds, flood, and tornadoes, all of which caused social and economic losses.

Scientists have been telling us the impact is evident for years. Now you can see the data reflected in the insurance market.

Distribution of insured losses for weather events vs. man-made events - 1970 to 2022 (Source: Swiss Re, Howden Markets Nova Portal)



lote: Weather-related scale to US\$150 billion, man-made scale to US\$30 billion

At the end of 2021 an unprecedented 59.1 million people were internally displaced, of whom 23.7 million were forced to leave their homes due to natural disasters. Humanitarian needs continue to grow as the number of affected people and the duration of the impact increases. The current humanitarian funding system is overwhelmed.

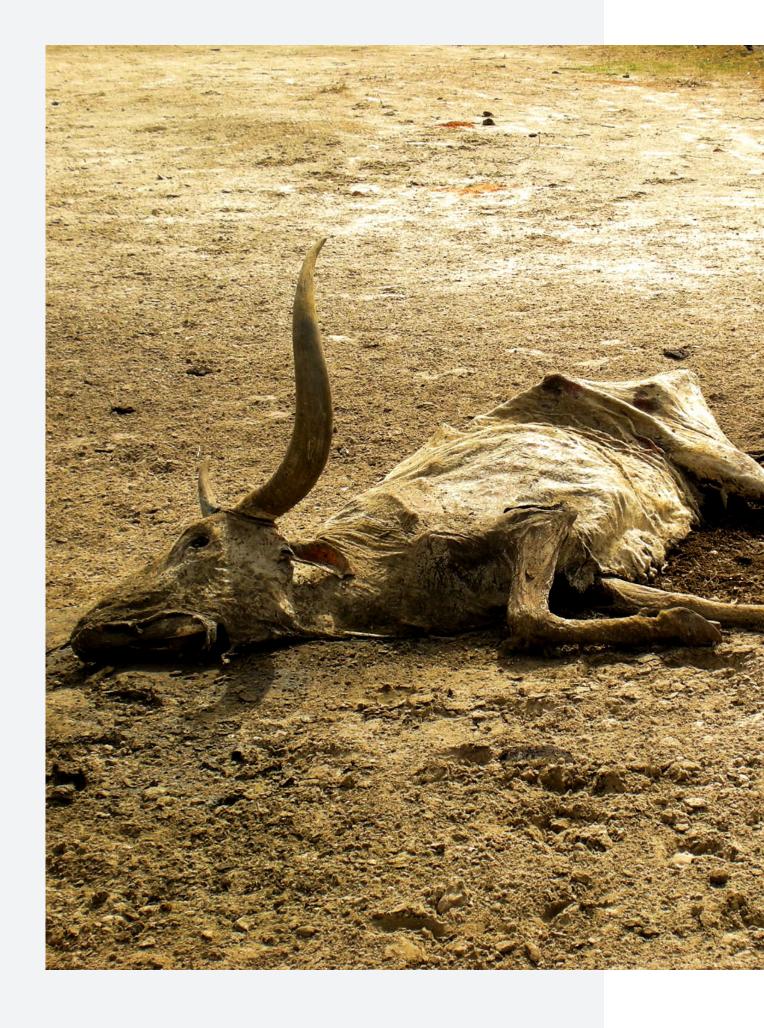


As the climate crisis goes unchecked, extreme weather events, such as heatwaves and floods, are hitting the most vulnerable people the hardest. Nowhere is the impact more brutally felt than in countries already reeling from hunger, conflict and poverty.

Martin Griffiths

United Nations Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator

¹Internal Displacement Monitoring Centre



Traditional sources of funding are overwhelmed

The Global Humanitarian Overview (GHO) is the world's most comprehensive assessment of humanitarian needs.

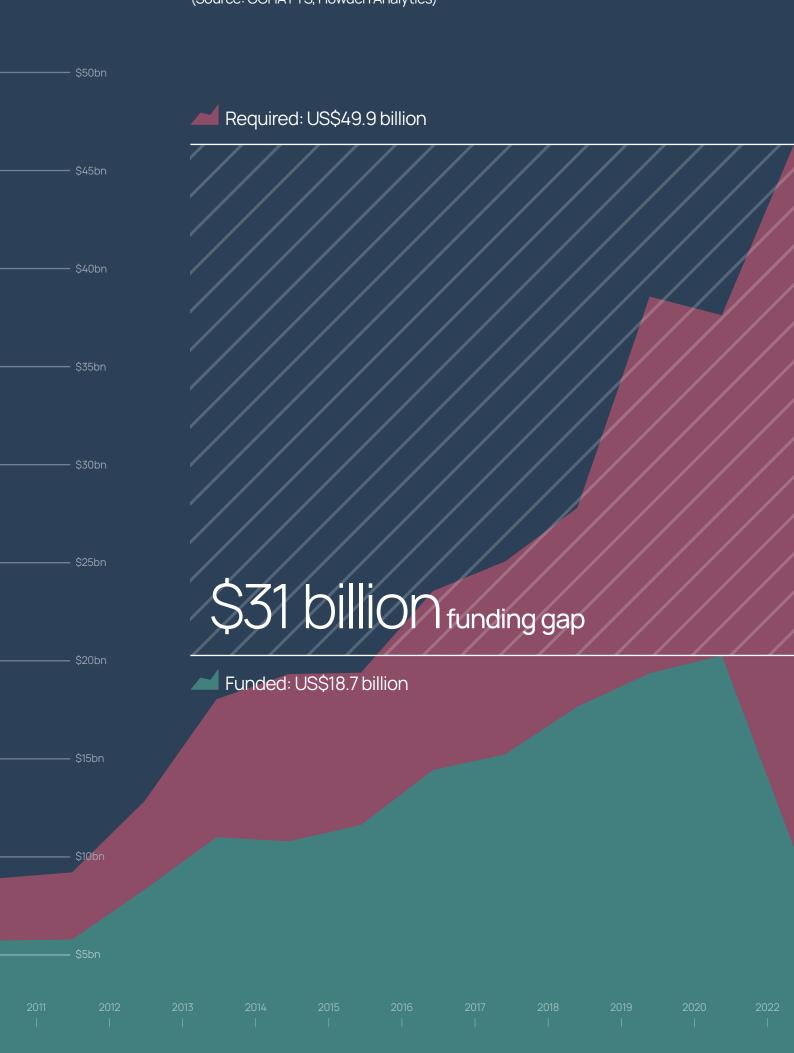
The overview showed that at the start of 2022 the funding requirement was \$41 billion to address the humanitarian needs of 194 million of the most vulnerable people. The funding gap at the start of the year was \$25.8 billion.

Just eight months later the global humanitarian situation had deteriorated considerably. Financial requirements had grown to \$49.9 billion, which could only assist 206 million of the 308 million people in need around the world. By August 2022 the funding gap had increased to \$31 billion.

2023 will set another record for humanitarian relief requirements, with 339 million people in need of assistance. The cost of the humanitarian response is estimated at US\$51.5 billion, an increase of 25% on the funding needed at the start of 2022.

Ad hoc fundraising appeals are usually launched after a crisis has struck, or when it is imminent, and they depend on intense media attention to raise the necessary public awareness. This does not allow for anticipatory action, and there is no guarantee of public interest translating into donations sufficient to meet emergency response needs.

<u>2000</u> <u>2001</u> 2002 2003 2004 2005 2006 2007 2008 2009 2010

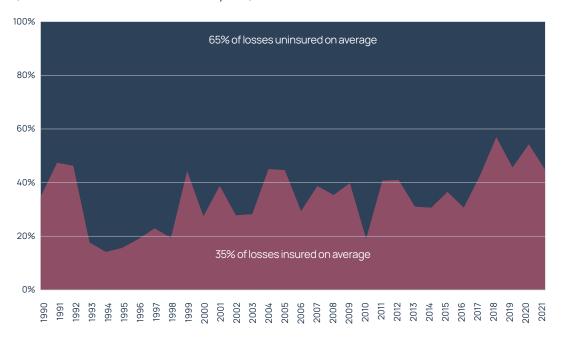


Not everyone is protected

Higher-income countries and their populations generally have some resources to deal with the unavoidable impacts of climate change. People living in low-income countries do not.

The farmers, small business owners, homeowners, and corporates affected by the extreme weather events in Europe, Australia, and the United States in 2022 had either taken out insurance or were supported to some extent by their governments.

Protection gap for weather-related risks worldwide 1990 to 2021 (Source: Swiss Re, Howden Analytics)



By contrast, developing countries where natural disasters have been the most acute are suffering disproportionately. For example in 2022, Pakistan suffered the country's deadliest floods since 2010. The World Bank estimates that between 9.9 million and 15.4 million people (about 7% of the population) will be driven into poverty.

The local government aid agencies in low-income countries do not have the resources to meet these demands. The people and their assets are not protected by insurance.





The climate crisis is intensifying humanitarian emergencies all around the world. To avert its most devastating impacts, we must invest equally on adaptation and mitigation, particularly in the countries most at risk. If communities are prepared to anticipate climate risks and equipped to take action, we will prevent extreme weather events from becoming humanitarian disasters.

Jagan Chapagain

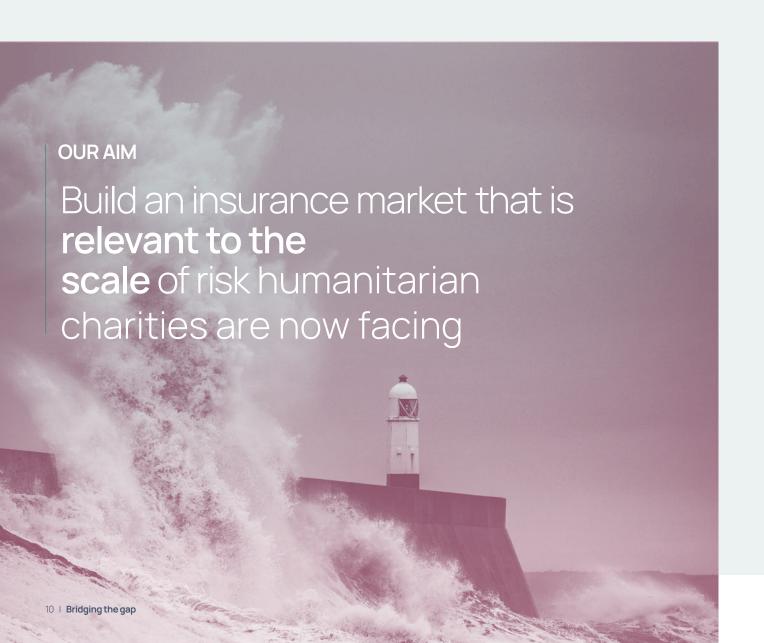
Secretary General of the International Federation of Red Cross and Red Crescent Societies

Unlocking private capital

Companies all over the world rely on insurance to protect investments and assets, and are informed by the insurance sector's unique capabilities in applying climate and disaster-risk modelling to financial decisions.

The advent of index-based parametric triggers is driving significant advances in methods of pre-financing disaster relief that are:

- Predictable
- Timely
- Cost-effective



Howden is establishing the Humanitarian Resilience Trust. An independent fund overseen by a professional committee with the aim of assessing hundreds of disaster relief projects to provide them with pre-emptive finance. Howden will seed this fund which will serve to leverage contributions from other like-minded industry partners and climate-focused philanthropists. This will allow the fund to:

- Direct capital to communities to invest in climate resilience.
- 2. Use sophisticated risk modelling insurance triggers to provide immediate finance for emergency response when catastrophic disaster strikes.
- 3. Signal the industry's commitment to act to address climate change.
- 4. Build towers of capital to provide a meaningful pre-emptive response to volatility. The trust will provide funding to help charities and NGOs pay a proportion of the premium to buy parametric insurance as well as fund risk reducing resilience measures.



Insurance or ILS

Catastrophe insurance layer and/or ILS markets: immediate finance for emergency disaster response on the basis of parametric triggers.

Potential for ESG investment by corporate investors (e.g. bond).

Debt finance

Debt finance layer to build resilience (this layer is not common to all structures).

Grant + Premium **Funders Foundations**

Grant funding to be spent on climate resilience projects to reduce risk. Insurance premium and debt coupon subsidies to help charities fund the first layer bond and insurance ILS layer.

Examples of current projects

Pacific Tropical Cyclone Parametric Product

Project outline

Parametric micro-insurance provides cover against cyclones, a risk which cuts across the whole agricultural sector. Farmers in Fiji rely heavily on savings, bank loans or financial support from family and friends for disaster recovery, or – if they are able – set aside as much as they can before the event in preparation for the inevitable financial losses. This project aims to improve the financial preparedness of vulnerable Fijians against natural hazards and to afford farmers and their families some protection against cyclone damage.

Howden Donation

US\$60,000

Limit

US\$2.4 million (US\$500 limit per member)

Premium

US\$240,000

Other Donors

75% of premium paid by beneficiaries

Technical support in-kind from:

- India UN Development Partnership fund administered by the UN Office for South-South Cooperation (UNOSSC)
- New Zealand Ministry of Foreign Affairs & Trade
- Australian Department of Foreign Affairs and Trade
- Luxembourg's Government Climate and Energy Fund

Policyholders

9 organisations on behalf of 4,800 members

Beneficiaries

Vulnerable and low-income individuals – farmers, fishers, women, persons with disabilities

Jamaican Hurricane Parametric Product

Project outline

The Jamaica Co-operative Credit Union League is relied upon for loans by 100,000 smallholder farmers to cover the cost of essentials, such as seeds, day-old chicks and farming equipment. Farming is the main source of income for around 18% of the Jamaican population. Adverse weather events could lead to farmers being unable to repay their loans, putting the JCCUL's ability to continue to offer financial support at risk. The insurance product, which is based on a parametric trigger, replaces funds lost by the Credit Union as a result of farmers defaulting on micro-loans in the event of an extreme hurricane.

Howden Donation

US\$50,000

Limit

US\$2,500,000

Premium

US\$225,000

Policyholders

Jamaica Co-operative Credit Union League

Beneficiaries

100,000 smallholder farmers

Other Information

In a region with low insurance penetration and increasingly frequent and severe weather events, the financial systems across the Caribbean are being put under significant stress.

Coral Reef Parametric cover, TNC, Hawaii

Project outline

Parametric insurance coverage of coral reefs. The aim of the project is to catalyse investment in preserving coral reefs through increased management, restoration, research, monitoring and public awareness. This will be achieved through:

- Empowering local communities to co-manage coastal resources in partnership with State and Federal agencies to restore healthy reefs and abundant nearshore fisheries that are better able to withstand the impacts of climate change
- Building local capacity and expertise to restore coral reefs when they are impacted by bleaching or physical damage; and
- Developing innovative funding mechanisms to ensure these improvements in reefs will endure.

Howden Donation US\$50,000

Limit

Estimated US\$1,000,000

Premium

US\$100,000

Other Donors

Bank of America Foundation

Policyholder

TNC

Beneficiaries

Hawaii state agencies, local communities

Volcano Bond

Project outline

In 2021, Howden worked with the Danish Red Cross to launch the world's first ever volcano catastrophe bond. The bond covers the risk of volcanic eruption of one of ten named volcanoes and uses parametric triggers based on the height of the ash plume and on wind direction.

This was the first time that the Danish Red cross, a humanitarian organisation with global reach, used insurance to supplement its disaster response capacity. It was a proof of concept for a model that has the potential to transform the way disaster relief is funded.

The Danish Red Cross sponsored the catastrophe bond with support from the Howden Group Foundation. The Danish Red Cross volcano cat bond was voted Broker Innovation of the Year at the European Risk Management Awards 2021 (Howden Insurance Brokers, Replexus, Mitiga, Danish Red Cross).

Howden Donation US\$150,000

Limit

US\$3,000,000

Premium

US\$150,000

Other Donors

Danish Red Cross

Policyholder

Danish Red Cross

Beneficiaries

The ten named volcanoes covered by the catastrophe bond span three continents. They were chosen due to the threat they pose to local populations, and all have at least 700,000 individuals living within 60 miles (100km) radius of a potential eruption. The eruption of Mount Pelée in Martinique killed nearly 30,000 people and was the site of the worst volcanic disaster of the 20th century.

Project 1 - awaiting implementation

Country/area **Africa**

Project outline

Every year this African city is subject to heavy rains and strong winds that cause significant flooding which cause devastation for the local communities. This project will provide parametric cover against riverine/pluvial flooding for the city. This is the first cover of this kind in Africa, and the second worldwide.

The pay-out would be used to finance emergency relief measures such as pumping out water from the flooded streets, hospitals and schools; emergency housing for residents and first responders to the emergency; compensation for affected households; and public building reconstruction.

Howden Donation

Premium

€50,000 (approved) Estimated €62,500

Limit

Estimated €800,000 - €1,000,000

Policyholder

African city

Beneficiaries

City populace

Project 2 - awaiting implementation

Project outline

A non-governmental organisation managing a group of Marine Protected Areas, regenerating 1,000,000 ha of high-biodiversity coral reefs protecting 40 endangered species and improving the livelihoods of >20,000 coastal communitymembers.

Parametric, cat-in-a-box tropical cyclone cover for two marine protected areas in the pacific. The trigger is based on the Saffir Simpson scale of cyclone category.

Howden Donation

US\$15,000 (approved)

Limit

US\$500,000

Premium

US\$17,500

Other Donors

NGO to provide remaining requirement

Policyholder

NGO

Beneficiaries

Co-management entities of the protected areas, coastal communities vulnerable to the impact of tropical cyclones



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