

WHITE PAPER

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Inside sustainable finance

RESILIENCE FINANCE

Q2 2026

Introduction and global context

The global sustainable debt market continued to growing in the first half of 2026 (H1), with cumulative aligned GSS+ bond issuance reaching [US \\$7.3 trillion](#). H1 2026 issuance stood at [US \\$529.7 billion](#), only 1% lower than H1 2025, a sign the market has held steady even as conditions got tougher. Figure 1 shows the composition of GSS+ bonds in H1 2026.

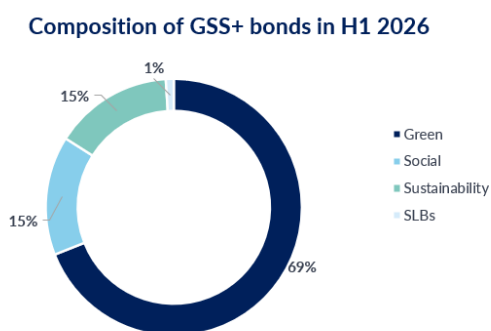


Figure 1: Composition of GSS+ bonds in [H1 2026](#)

So far, 2026 saw a relatively balanced issuer mix, with financial corporates accounting for [23%](#) of aligned issuance, followed by government-backed entities ([21%](#)), development banks ([19%](#)) and non-financial corporates ([19%](#)). Financial corporates reached a quarterly record of [US \\$76.3 billion](#) in Q2, while development banks recorded their second-strongest half on record at [US \\$101.7 billion](#).

This diversity in issuer participation was also reflected in the geographic distribution of issuance. France was the largest source of aligned issuance at [US \\$81.3 billion](#), including a EUR10 billion green bond ([US \\$11.8 billion](#)) that ranked among the five largest single-tranche GSS+ deals on record, followed by supranational issuers with [US \\$70.0 billion](#). Germany followed with [US \\$60.9 billion](#), supported by two consecutive quarterly

records. Emerging markets also recorded notable developments, including Egypt's first social sovereign bond, which raised [US \\$1 billion](#) for women's empowerment and education, and China's second sovereign green bond in Hong Kong.

The market's geographic breadth was matched by continued diversification across currencies and issuers. [44](#) currencies were used across aligned GSS+ issuance, with the euro accounting for a record [US \\$280.5 billion](#) and, together with the US dollar and Chinese yuan, representing [80%](#) of H1 volume. The market attracted [941 issuers across 48 countries](#), with more than [200](#) accessing the labelled debt market for the first time.

Alongside the expanding issuer and currency base, issuance remained concentrated in shorter maturity, with tenors of up to 10 years accounting for [US \\$404.9 billion](#), or [76%](#) of H1 volume. Cumulatively, these maturities represent [US \\$5.3 trillion](#) (73%) of aligned issuance since 2006, highlighting the depth of the market available to support the development of resilience financing. The following sections examine how resilience-focused instruments are beginning to draw on this established investor base.

Thematic focus: Resilience finance

[Resilience finance](#) refers to the provision of financial services and capital that enable people, entities, infrastructure, communities and economies to anticipate, withstand, adapt to and recover from climate and natural hazards while maintaining and restoring essential functions. It supports the capacity of interconnected systems to resist, absorb, accommodate, adapt to, transform and recover from shocks through effective risk management, [encompassing](#) finance across

assets, operations, customers, supply chains, communities and end users. As a branch of sustainable finance, it includes climate adaptation finance, disaster risk insurance and resilience-linked capital market instruments, alongside other mechanisms that support risk reduction and [recovery](#). Its relevance is particularly pronounced in climate-vulnerable geographies, including small island developing states, drought-prone agricultural economies and rapidly growing urban centres exposed to floods, extreme heat and other natural hazards. This edition examines the role of resilience finance within the broader sustainable finance landscape, including its key instruments, evolving market development and the financing needs it seeks to address.

However, adaptation and resilience finance remains a relatively small segment of the broader climate finance market, despite growing exposure to climate and disaster risks. According to BCG and the Coalition for Disaster Resilient Infrastructure (CDRI), adaptation and resilience accounted for only [US \\$65 billion](#), or less than [4%](#) of global climate finance, in 2023, compared with projected annual global adaptation needs of [US \\$248 billion](#) by 2050. Much of the financing currently available continues to come from public sources, while private capital remains constrained by fragmented planning, limited investment-ready projects and bankable pipelines, and uncertainty around returns.

Risk transfer and insurance also remain important components of the resilience finance landscape, providing mechanisms to absorb and distribute residual risks that cannot be addressed through risk reduction alone. However, significant protection gaps

persist, with only [44%](#) of losses from extreme weather events were insured globally in 2024. These gaps highlight the need for financing structures that combine risk reduction, risk transfer and risk-sharing mechanisms. Blended finance can play an important role in this context by using concessional capital, guarantees and other risk-mitigation instruments to improve the risk-return profile of resilience investments and help mobilise private capital. The emergence of dedicated resilience funds, resilience bonds and other risk-transfer and risk-sharing instruments points to a market that is beginning to develop beyond traditional public expenditure, although these mechanisms remain at an early-stage relative to the scale of the financing requirement.

Recent research identifies [11 financial instrument types](#) used across adaptation and resilience. Table 1 summarises some of these instruments and their application across preparedness, risk reduction, risk transfer and recovery.

Instrument	Deployment context	Purpose
Blended finance	Development banks, donors and private investors, in pooled structures	Use catalytic public or philanthropic capital to de-risk and attract private investment
Bonds	Governments, municipalities and corporates	Raise capital from investors for resilience linked projects or assets
Concessional loans	Development banks and multilateral funds	Provide below market rate financing for risk reduction investment
Debt swaps	Government creditors and multilateral institutions	Convert sovereign debt into a spending commitment toward resilience goals

Disaster risk financing	National governments and multilateral development banks	Combine precautionary funds, contingent finance and insurance for rapid post disaster response
Guarantees	Credit guarantee companies and development institutions	Absorb default risk to unlock lending for resilience projects
Payment for ecosystem services	Governments, conservation bodies and landowners	Reward natural resource management that reduces climate vulnerability

Table 1: *Financial instruments for strengthening climate resilience*

The growing use of risk-transfer mechanisms illustrates how this financing landscape is evolving. The catastrophe bond and insurance-linked securities market recorded [US \\$17.98 billion](#) in issuances in the first half of 2026, surpassing the previous first-half record of [US \\$17.56 billion](#) in 2025. Outstanding market volume reached [US \\$65.6 billion](#) by the end of June 2026. Indemnity-triggered structures accounted for [81%](#) of risk capital issued, compared with 79% in the corresponding period a year earlier, indicating growing use of catastrophe bonds by primary insurers alongside increasing participation from sovereign and public-sector issuers. This growth reflects increasing demand for mechanisms that can transfer climate and disaster risks before losses occur and provide liquidity when predefined triggers are met.

The case for such mechanisms is reinforced by the scale of recent disaster losses. According to Swiss Re, natural catastrophes generated [US \\$220 billion](#) in global economic losses in 2025, of which only [US \\$107 billion \(49%\)](#) was insured. For fiscally constrained and highly exposed economies, post-disaster borrowing and external assistance can be slow and uncertain. Pre-arranged

mechanisms such as parametric insurance and catastrophe bonds offer an alternative by making funding available when predefined triggers are met.

Policy and regulatory developments

Policy and regulatory frameworks for resilience finance are expanding beyond adaptation planning to address climate and disaster risks. Governments, standard setters and multilateral institutions are introducing financing targets, disclosure requirements and institutional mechanisms covering risk reduction, disaster response, loss and damage, and risk transfer. Resilience is also being integrated into fiscal and financial decision-making. In emerging markets and developing economies (EMDEs), this is reflected in disaster risk financing strategies, climate-related disclosures, financial-sector risk assessments and pre-arranged financing frameworks. Figure 2 highlights key developments in this evolving policy landscape.



Figure 2: Policy developments

These developments span international commitments, institutional arrangements and financial market practices. At COP30 in Belém, countries agreed to work towards [tripling](#) adaptation finance by 2035, alongside a reaffirmed Glasgow doubling goal and a broader objective to mobilise [US \\$1.3 trillion](#) annually by 2035. The [Loss and Damage Fund](#) also became operational, with more than [US \\$730 million](#) pledged and initial payouts underway. The [Global Shield](#) against Climate Risks established a permanent secretariat at the Frankfurt School, strengthening the institutional framework for pre-arranged disaster risk financing.

Climate resilience is also entering financial market regulation and disclosure. The [ISSB](#) has also clarified how companies should assess climate resilience under IFRS S2, with its standards now adopted in [28](#) jurisdictions. At the regional level, the EU's [Brussels Declaration](#) further sets out priorities for a new climate resilience framework. Taken together, these developments indicate a broader shift towards embedding resilience within financing frameworks, institutional arrangements and financial market practices.

In EMDEs, [Bangladesh](#) has been developing a disaster risk financing framework that combines budgetary resources, contingent financing and risk-transfer mechanisms, while the Philippines has established a [risk-layered approach](#) combining contingency funds, contingent credit, insurance and catastrophe bonds. These developments reflect a growing emphasis on integrating risk retention and risk transfer into national financial planning and strengthening financial preparedness ahead of disasters.

Regional institutions are also strengthening the financial architecture for resilience. In

2026, the Asian Development Bank (ADB) established the Pre-Arranged Resources for Enhancing Preparedness and Resilience Financing Partnership ([PREPARE](#)) facility to help developing member countries strengthen disaster risk financing through improved data and analytics, institutional capacity, national DRF strategies and access to pre-arranged financing. ADB has also expanded the use of market-based instruments through its [inaugural Disaster Relief Bonds](#) for the Kyrgyz Republic and Tajikistan, providing pre-arranged protection against earthquake and extreme precipitation risks.

Together, these developments point to a gradual strengthening of the institutional and financial architecture needed to manage disaster risks before shocks occur.

Case studies

1. Jamaica's layered approach to disaster risk financing

Jamaica is highly exposed to hurricanes and can face significant economic losses from a single event. Research estimates that a severe hurricane can cause damages exceeding [20% of GDP](#). Historically, reconstruction has relied heavily on budget reallocations and new borrowing, putting pressure on public finances and delaying recovery. This created a need for financing that could provide liquidity quickly after a major disaster. Jamaica therefore developed a layered disaster risk financing approach, matching different financing instruments to the frequency and severity of disasters.

Instrument

Jamaica's approach combines three principal layers, moving from frequent, lower-impact

events to rare, high-impact events, shown in Figure 3.

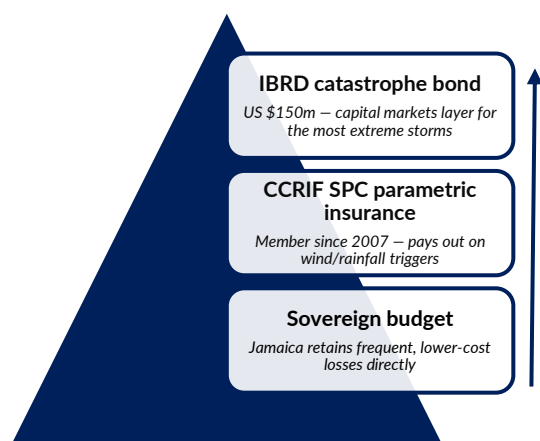


Figure 3: Risk layered pyramid

Layer 1 – Sovereign budgetary resources:

The government retains the financial risk of smaller and more frequent disasters through its own budget, including contingency resources and disaster reserve funds. This layer is intended to cover events that are manageable within existing fiscal resources without triggering an insurance payout or new external financing.

Layer 2 – Parametric insurance through Caribbean Catastrophe Risk Insurance Facility:

For larger but less frequent events, Jamaica uses parametric insurance through the (CCRIF). Unlike conventional insurance, which generally requires an assessment of actual damages, CCRIF payouts are triggered when predefined parameters for an event, such as the intensity and location of a hurricane or modelled losses, are met. This allows funds to be released rapidly after a disaster and provides liquidity for immediate response and early recovery.

Jamaica has been a member of the [CCRIF SPC](#) parametric insurance facility since it was founded in 2007, paying out against

modelled wind and rainfall thresholds rather than assessed losses.

Layer 3 - Catastrophe bond: For the most severe and infrequent hurricane events, Jamaica transfers part of its risk to international capital-market investors through a catastrophe bond. In 2024, the World Bank issued a [US \\$150 million](#) catastrophe bond providing Jamaica with insurance coverage against named storms for four hurricane seasons. The bond uses predefined parametric triggers based on the storm's characteristics, including its path and intensity. If the trigger conditions are met, the bond provides a predetermined payout without waiting for a full assessment of the government's actual damage.

Impact

The value of Jamaica's layered approach was demonstrated following Hurricane Melissa in October 2025. The catastrophe bond was triggered, providing the Government with the full [US \\$150 million](#) payout. CCRIF subsequently made two payouts totalling [US \\$91.9 million](#), comprising [US \\$70.8 million](#) under Jamaica's tropical cyclone policy and [US \\$21.1 million](#) under its excess rainfall policy. Both CCRIF payouts were made within [14 days](#), providing immediate liquidity for emergency response, continuity of public services and early recovery. Together, the catastrophe bond and CCRIF therefore provided [US \\$241.9 million](#) in pre-arranged disaster financing.

The pre-arranged financing reduced the Government's immediate reliance on budget reallocations and new borrowing following the disaster. By securing liquidity before a disaster occurs, the layered approach helped Jamaica meet urgent financing needs while

damage assessments and broader recovery financing were still being mobilised. The key benefit was therefore a faster access to financing and reduced immediate pressure on public finances.

2. Zimbabwe's parametric approach to drought risk financing

Zimbabwe is highly exposed to recurring drought, with El Niño events repeatedly affecting food security and placing pressure on public resources. Traditional post-disaster appeals can involve delays in mobilising, leaving households with limited support as conditions worsen. This has created a need for financing that could be triggered early, based on measurable drought conditions rather than a lengthy post-disaster assessment.

Instrument

To address this need, Zimbabwe participates in the African Risk Capacity (ARC) Group, a pan-African parametric risk pool that uses the Africa RiskView satellite-based index to monitor drought conditions. When predefined thresholds are reached, the policy triggers automatically and releases funds without a conventional claims assessment. The structure also brings together the Government of Zimbabwe, the World Food Programme and Start Network as co-beneficiaries, allowing the same coverage to support different parts of the drought response. Figure 4 illustrates how the coverage is structured across the three beneficiaries.

Impact

This mechanism was activated during the 2024 El Niño drought, triggering a combined US \$32 million payout to the three co-

beneficiaries. The funding reached an estimated 4.7 million people and supported 509,000 households across 27 districts, providing resources while the drought was still affecting communities. The experience illustrates how parametric insurance can provide faster, pre-arranged financing for drought response and reduce dependence on post-disaster appeals. Its application beyond Zimbabwe, including a US \$5.5 million payout to Somalia in 2026, also points to the potential for pooled risk-transfer mechanisms to support drought resilience across African countries.

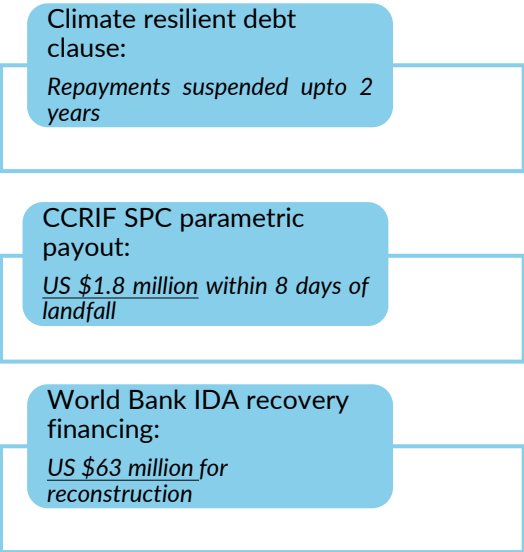


Figure 4: ARC parametric coverage beneficiaries

3. St. Vincent and the Grenadines: Debt suspension for post-disaster fiscal relief

Hurricane Beryl struck St. Vincent and the Grenadines in July 2024, causing extensive damage across the southern Grenadines. More than 90% of buildings and infrastructure in the affected islands were destroyed, while over half of the country's population was impacted. With public finances already under pressure from previous disasters, the government needed immediate liquidity for recovery without taking on additional debt.

Instrument

The country activated a Climate Resilient Debt Clause (CRDC) embedded in its existing World Bank loans. The mechanism allows eligible countries to temporarily suspend principal and interest payments for up to two years following a qualifying disaster, while preserving the original maturity of the loan. St. Vincent and the Grenadines became the [first](#) country to trigger the CRDC, following Hurricane Beryl. The mechanism was complemented by other disaster-finance instruments, including parametric insurance through CCRIF SPC, as illustrated in figure 5.

ARC parametric coverage beneficiaries

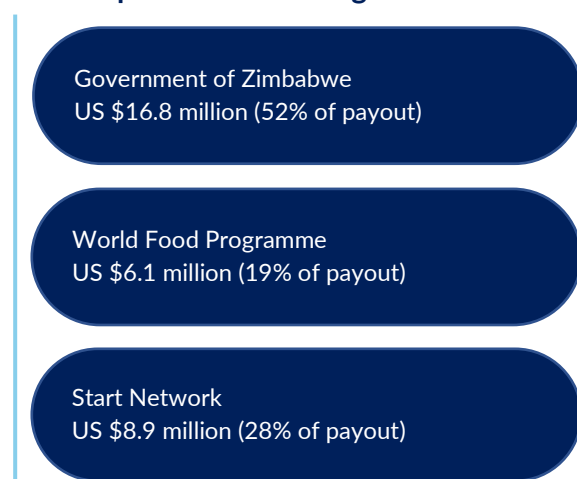


Figure 5: Layered post-disaster fiscal relief impact

The debt suspension immediately created fiscal space for emergency response and recovery without requiring new borrowing or an insurance claims process. CCRIF SPC also provided a [US \\$1.8 million](#) parametric payout within eight days of the hurricane, while the World Bank subsequently approved a [US \\$63 million](#) recovery project. The case demonstrates how embedding contingent debt relief into sovereign lending can provide governments with rapid liquidity when

disasters strike, complementing insurance and other resilience-financing instruments.

Conclusion

The resilience finance landscape is shifting from ad hoc post-disaster response toward pre-arranged, rules-based mechanisms that can deploy liquidity when shocks occur. Pooled parametric insurance through CCRIF SPC and ARC, sovereign catastrophe bonds such as Jamaica's, and debt-based instruments such as the Climate Resilient Debt Clause demonstrate that governments can build financial protection into the architecture of sovereign finance before a disaster strikes. The priority now is to move these mechanisms beyond individual transactions and pilots and make them a more systematic part of how vulnerable countries manage climate and disaster risk. This is particularly important as adaptation finance needs in developing countries are projected to reach [US \\$310–365 billion](#) annually by 2035, compared with just [US \\$26 billion](#) delivered in 2023. Scaling this architecture will require stronger integration across sovereign lending, insurance markets and capital markets, alongside greater standardisation and replication across countries.