POLICY BRIEF

Insuring Our Future: Leveraging Insurance Expertise to Scale Adaptation Finance in the Global South

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Accelerating Climate Action and the Just Energy Transition

Abstract

Climate change complexity and unpredictability have made adaptation finance both difficult to scale and sustain – particularly across the Global South. Traditional financing approaches face significant barriers including limited local capacity, difficulty quantifying adaptation benefits, mismatched investment horizons (private investors seeking shorter-time returns vs adaptation projects generating benefits over decades), underestimation of climate risks, and fragmented finance systems. Building on previous T20 climate finance recommendations, this policy brief argues that leveraging the insurance sector's expertise can unlock more resilient and scalable adaptation financing solutions, aligning with broader G20 objectives for sustainable and inclusive growth.

Insurance expertise offers transformative solutions by improving access to climate risk data, enhancing risk understanding, pooling and transferring risks, incentivising resilience measures, and building local capacity. These elements directly support the G20's sustainable finance agenda and connect to ongoing climate dialogues under the Brazilian G20 presidency, forming a basis for South Africa's 2025 leadership and future UNFCCC negotiations.

To scale up adaptation finance, we propose the following recommendations:

1. Mandate standardised risk assessments via multilateral development banks (MDBs): Develop a G20-endorsed climate risk "scorecard" requirement for adaptation finance projects, implemented by MDBs to enhance transparency and investor confidence.
2. Enhance capacity building through insurance-sector expertise: Partner insurance firms with local stakeholders to provide training in risk modelling and project design, addressing capacity gaps in the Global South.
3. Scale parametric insurance for timely climate response: Expand parametric insurance mechanisms that trigger swift payouts when climate thresholds are met, reducing financial volatility post-disaster.
4. Provide financial incentives for investing in adaptation: Reward investments in resilience through financially material factors such as credit ratings, cost of capital, and insurance premiums.
5. Utilise sustainability-linked financial instruments and blended finance: Increase private investment through greater transparency about risks and returns using labelled bonds and other financial instruments.
6. Strengthen central bank frameworks for climate risk insurance markets: Leverage G20 central banks' regulatory authority to create enabling environments for insurance-based adaptation finance through prudential frameworks, liquidity facilities, and cross-border market facilitation.

These measures will promote long-term resilience by mitigating climate risks, attracting diverse funding sources, and strengthening community preparedness. By integrating insurance-based strategies into broader development frameworks, G20 members can champion a resilient future and encourage global best practices, ultimately ensuring that climate adaptation finance is both scalable and sustainable.

Key Words: Adaptation Finance, Climate Resilience, Insurance Mechanisms, Global South, Parametric Insurance, Multilateral Development Banks, Climate Risk Management

Diagnosis

Adaptation finance is vital for helping communities, especially in the Global South, cope with increasing climate physical risk events like floods, droughts, and heatwaves. Projects such as flood barriers, resilient agriculture, and water infrastructure build essential resilience. Yet, scaling this finance faces significant hurdles due to climate change's unpredictable nature and systemic barriers in developing nations.

Key challenges include:

- **Limited local capacity:** Many Global South countries lack expertise in risk assessment, project design, and financial structuring, reducing their ability to develop bankable adaptation initiatives.[1, 2]
- **Difficulty with quantifying and monetising the benefits of adaptation and resilience:** The benefits of investing in adaptation are often difficult to quantify as they span a range of social, economic and environmental benefits.
- **Underestimation of long-term risks:** Traditional financing models often rely on outdated data, failing to capture the escalating intensity of climate events. This miscalculation leads to underfunded projects unable to withstand future risks, deterring investors.[3, 4]
- **Market failure in pricing climate risk management**: Currently the financial market does not sufficiently capture climate risks. Some institutions such as ratings agencies and insurance companies have started to penalise risk,

[1] Sarah A. Forrest and Arnim Wiek, "Climate change adaptation with limited resources: adaptive capacity and action in small- and medium-sized municipalities," Environment, Development and Sustainability 25, no. 5 (2023): 4667-4697.
[2] World Bank Group and IMF, "Deepen Joint Effort to Scale Up Climate Action," May 31, 2024, https://www.imf.org/en/News/Articles/2024/05/31/pr-24194-world-bank-group-and-imf-deepen-joint-effort-to-scale-up-climate-action.
[3] Nicholas Stern, "The structure of economic modeling of the potential impacts of climate change: grafting gross underestimation of risk onto already narrow science models," Journal of Economic Literature 51, no. 3 (2013): 838-859.
[4] Steve Keen et al., "The missing risks of climate change," Nature Climate Change 12, no. 12 (2022): 1066-1070.

however, there is a lack of financial incentives for adaptation to manage these risks.

- **Low Private Sector Engagement:** High perceived risks and uncertain returns discourage private investment, leaving public budgets overstretched.

Evidence underscores these issues. The Organisation for Economic Co-operation and Development (OECD) notes that adaptation finance reached only $28 billion in 2022, far below the $100 billion annual climate finance goal, with systemic barriers limiting scale-up in developing countries.[5] The World Resources Institute highlights how poor risk quantification hampers investment in resilience projects.[6]

Insurance expertise offers a transformative solution.[7] Insurers excel at assessing and managing risks using advanced tools like climate modelling and actuarial science[8]. They can:

- **Improve access to data:** Insurance companies usually have a good understanding of climate risk and access to climate risk data to support better physical climate risk management and project/programme design
- **Enhance Risk Understanding:** By quantifying climate risks, insurers and stakeholders improve project design and investor confidence.
- **Pool and Transfer Risks:** Insurance spreads financial exposure across policyholders, reducing individual burdens and stabilising budgets.
- **Incentivise Resilience:** Premium discounts for adaptation measures encourage proactive risk reduction.[9]

[5] OECD. *Scaling Up Adaptation Finance in Developing Countries*. OECD Publishing, 2023.

[6] Global Commission on Adaptation. *Adapt Now: A Global Call for Leadership on Climate Resilience*. Global Commission on Adaptation, 2019.

[7] Swiss Re, "Climate Risk Services," 2024, https://corporatesolutions.swissre.com/insurance-services/climate-risk-services.html.
[8] Munich Re, "Climate change and its consequences," 2024, https://www.munichre.com/en/risks/climate-change.html.
[9] European Insurance and Occupational Pensions Authority. *The Role of Insurers in Tackling Climate Change*. EIOPA, 2023.

- **Build Capacity:** Insurers can train local stakeholders, bridging knowledge gaps.

Recommendations

To scale adaptation finance effectively, the G20 should adopt these actionable, insurance-driven recommendations:

1. Mandate standardised risk assessments and insurance process via MDBs

- **Objective:** Require a G20-endorsed climate risk "scorecard" for all MDB-funded adaptation projects.
- **Rationale:** MDBs mobilised $101 billion in private finance in 2023 through guarantee mechanisms and blended finance structures that provide scale and risk-sharing capabilities.[10] MDBs possess specialised knowledge in climate finance instruments and operate with longer investment horizons aligned with adaptation needs. Multilateral structure reduces donor country political interference while maintaining consistency across political cycles.
- **Implementation:** The G20 should task MDBs with developing a scorecard assessing hazard exposure, vulnerability, and resilience potential. Projects scoring above a threshold would qualify for blended finance incentives, drawing private capital. This aligns with the G20's sustainable finance roadmap by streamlining risk evaluation.

[10] World Resources Institute, "Multilateral Development Bank Climate Finance: The Good, Bad and the Urgent," 2024, https://www.wri.org/insights/mdb-climate-finance-2023.

2. Enhance capacity building through insurance-sector expertise

- **Objective:** Partner insurance firms with local stakeholders to provide training in risk modelling and project design.
- **Rationale:** Insurance sectors in G20 countries demonstrate proven effectiveness in climate risk management at scale. The United States Federal Crop Insurance Program covers 85% of major crop acreage with $102.4 billion in liability coverage and 81% farmer participation rates.[11] Insurers' risk-engineering services can extend to education, as seen in programmes by AXA Climate[12]. These outcomes provide evidence that insurance expertise can be effectively leveraged to scale adaptation finance in developing economies
- **Implementation:** The G20 should incentivise insurers to offer workshops, funded via climate finance mechanisms like the Green Climate Fund. MDBs can coordinate, targeting policymakers and developers in high-risk regions. This builds a pipeline of investable projects, amplifying adaptation finance.

3. Scale parametric insurance for timely climate response

- **Objective:** Expand parametric insurance, triggering payouts based on climate thresholds (eg, rainfall levels).
- **Rationale:** Parametric solutions provide fast, predictable funds post-disaster, reducing financial volatility and boosting investor trust. The Caribbean Catastrophe Risk Insurance Facility's disbursed $150 million since 2007.[13] Colombia's Allianz/Bancolombia parametric

[11] USDA Risk Management Agency, "RMA Quick Facts," 2024,.
[12] AXA Climate. https://climate.axa/
[13] CCRIF SPC. *Annual Report 2022-2023*. CCRIF, 2023.

agricultural insurance solution protects over 1,000 coffee and avocado farming families with $1.5+ million in coverage.[14] India's Pradhan Mantri Fasal Bima Yojana has processed 554+ million farmer applications with claims exceeding Rs 150,589 crore, showing massive scale effectiveness.[15]

- **Implementation:** The G20 should promote parametric insurance through tax incentives for insurers and pilot programmes with MDBs. Governments can adopt it as a fiscal buffer, encouraging wider use. This de-risks adaptation investments, accelerating capital flows.

4. Provide financial incentives for investing in adaptation and resilience

- **Objective**: Reward investments in resilience through financially material factors such as credit ratings, cost of capital and cost of insurance.
- **Rationale**: Linking climate adaptation efforts i.e. risks managed and risk reduced presents one way to quantify and monetise the benefits of adaptation and resilience.
- **Implementation**: A common language in the form of metrics needs to be developed to communicate about climate risks and the resilience benefits (i.e. risks reduced and development supported). These metrics will connect to factors affecting access to finance such as credit ratings, risk profiles etc. Investments in resilience will need to be rewarded through financial incentives such as cheaper cost of

[14] Allianz Commercial, "A lifeline for farmers battling climate change," 2024, https://commercial.allianz.com/news-and-insights/expert-risk-articles/climate-change-parametric-insurance-solution.html.
[15] Government of India, "Pradhan Mantri Fasal Bima Yojana," National Portal of India, https://www.india.gov.in/spotlight/pradhan-mantri-fasal-bima-yojana; AgriBusiness Global, "How Parametric Crop Insurance Offers a New Approach to Managing Agricultural Risk," June 2024.

capital and insurance.

5. Utilise sustainability-linked financial instruments and blended finance

- **Objective**: Increase private investment in adaptation and resilience
- **Rationale:** The private sector requires transparency regarding risk and returns. The process of issuing a labelled bond helps to build transparency and accountability of the issuer. While the basis point reductions will be allocated to the issuer, the sustainable development benefits can be transferred beyond the issuer to the investors through targets and credits.
- **Implementation:** The G20 should support government-led issuance of climate adaptation labelled bonds and loans with increasing private sector participation. Taxonomies are a first step in entering this market, but this would need to be supported by financial incentives such as cheaper cost of capital and reduced interest rates if the targets are achieved.

6. Strengthen central bank frameworks for climate risk insurance markets

- **Objective:** Leverage G20 central banks' regulatory authority to create enabling environments for insurance-based adaptation finance through prudential frameworks and liquidity facilities.
- **Rationale:** Since the insurance industry are market-driven, central banks play a crucial role in creating the regulatory infrastructure and market conditions necessary for parametric insurance and climate risk transfer mechanisms to function effectively. Central banks can influence market development through prudential policies that recognise systemic climate risk, regulatory frameworks that support

innovative insurance products, and liquidity mechanisms that enhance market confidence.

- **Implementation:** G20 central banks should implement coordinated regulatory reforms including: (1) developing regulatory sandboxes and expedited approval processes for parametric insurance products that support adaptation finance; (2) establishing liquidity facilities or backstop mechanisms to support catastrophe insurance markets during extreme climate events; and (3) integrating climate adaptation criteria into prudential capital requirements and liquidity ratios to incentivise insurance sector investment in adaptation projects.[16]

The window for effective adaptation is narrowing as climate impacts intensify. With these recommendations, the G20 can demonstrate leadership that translates climate commitments into tangible financial flows that protect lives, livelihoods, and long-term prosperity

[16] Paola D'Orazio, "Realising Central Banks' Climate Ambitions Through Financial Stability Mandates," Intereconomics 57, no. 2 (2022): 85-92; IMF, "Climate Risks and Financial Stability: What Can Central Banks and Financial Sector Supervisors Do?" December 2023

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