

Executive Summary

JUSTICE IN THE BALANCE: CLIMATE DEBT RELIEF AND EMERGENCE OF NATURAL RIGHTS LED GOVERNANCE

Climat Debt Risk Index-2025

Background

The principle of common but differentiated responsibilities under the Kyoto Protocol obliges high emitting developed countries to support vulnerable nations financially. Yet Least Developed Countries (LDCs), which produce under 3.3% of global emissions but suffer 69% of climate-related deaths, are now heavily indebted for adaptation, mitigation, and loss-and-damage efforts. Since 1993, climate disasters have killed about 765,000 people and caused USD 4.2 trillion in losses. The International Court of Justice has clarified that such financial cooperation is a legal duty, not charity. However, rising external debt service has pushed many LDCs into a “Climate Debt Trap,” where they borrow to cope with crises they did not cause. Such a mismatch of debt-based climate finance undermines both sustainability and trust in the global climate finance system. LDCs thus face a twin crisis of worsening climate impacts and mounting debt burdens. The Climate Debt Risk Index (CDRI’24) has documented these risks, and CDRI’25 will extend the analysis to 55 vulnerable countries to monitor trends, assess financing structures, and identify equitable and propose ways to offer equitable and sustainable finance solutions.



Overview of the Study

Climate Debt Risk Index (CDRI) assesses how countries manage the financial burden of climate change by examining the intersection of climate finance, vulnerability, and debt risk. It was designed to justice gaps in climate finance, framing the issue as one of rights and accountability. The index highlights a key contradiction in the global financial system: when low-emitting nations must borrow to cope with climate impacts, the system violates the polluter-pays principle.

CDRI'25 broadens this analysis by adding indicators of debt, exposure to climate hazards, governance, and ecological stewardship, and by examining how these interact to create “climate debt traps.” Using the Natural Rights-Led Governance (NRLG) framework, the index aligns indicators with NRLG pillars to identify where current finance practices infringe on the basic rights of people and ecosystems to exist, thrive, and recover.

Countries relying on loan-heavy climate finance and constrained by weak fiscal capacity, high poverty, or limited environmental management face the greatest risks. In contrast, those with stronger governance and higher shares of grants perform better.

CDRI'25 evaluates 55 countries: 13 falls in the very high-risk group including Burkina Faso, Niger, Madagascar, and Mali due to severe climate exposure and low income. Thirty-four nations, such as Bangladesh, Tanzania, and Sri Lanka, are classified as high-risk. Six, including Samoa and Vanuatu, are moderate-risk, and Botswana and Tuvalu are low-risk. Regional trends show that the Sahel and coastal West Africa experience frequent climate disasters, small island states vary widely depending on debt levels, and South Asia's risks differ by country, with Bangladesh particularly exposed due to its reliance on loans. Overall, the balance between loans and grants determines resilience, with grants providing greater financial stability.

Results and Discussion

Data from the Climate Debt Risk Index reveal structural gaps in how climate finance is delivered. The disbursement-to-commitment ratio which shows how much approved funding reaches countries is lowest in Sub-Saharan Africa, with Angola at 0.18 and Burkina Faso at 0.40. South Asia performs moderately better, with Afghanistan at 0.97 and Bangladesh at 0.63. Fragile states in the Middle East and North Africa (MENA) and Pacific Small Island Developing States (SIDS) face similar bottlenecks. The evidence underscores the need for fast, grant-based, and easily disbursed funding to enable timely climate protection.

The Debt-to-Grant Ratio highlights major mismatches in financing structures. Bangladesh (2.70) depends heavily on loans, while Nepal (0.10) receives mostly grants. Guinea (0.76) in Sub-Saharan Africa shows rising loan dependence, and SIDS and fragile economies continue to rely on limited and unpredictable grants. These findings point to the need for “grant-first” financing and tailored debt-sustainability measures.

The Adaptation-to-Mitigation Ratio shows uneven allocation across regions. South Asia prioritizes mitigation, as seen in Bangladesh (0.42), whereas Sub-Saharan Africa emphasizes adaptation, with Chad at 2.45. Fragile and conflict-affected states such as South Sudan (3.71) focus almost entirely on immediate adaptation. Expanding grant-based adaptation finance is essential in regions with high climate hazard exposure.

The Climate Debt-to-GDP Ratio varies widely. Sub-Saharan Africa (Ethiopia 0.0017) and South Asia (Bangladesh 0.0077) show relatively small ratios, though continued borrowing could strain fiscal space.

SIDS such as Kiribati (0.066) bear heavier burdens, while fragile states like Yemen are near zero. This suggests the need for debt relief and conversion of loans into grants.

The Per-Capita Climate Debt-to-Income Ratio is especially high in SIDS such as Cabo Verde (0.17) and Kiribati (0.06). Sub-Saharan Africa and South Asia generally record low values (≤ 0.01), but even small debts such as Mozambique’s 0.04 can escalate quickly with additional borrowing, reinforcing the importance of grants and relief.

The Per-Capita Climate Debt-to-CO₂ Ratio exposes the inequity faced by low-emitting nations. South Asia records high burdens, with Bangladesh at 29.53 and Maldives at 2.72, while Sub-Saharan Africa shows extreme values, for instance Niger at 103.23 and Rwanda at 93.11. SIDS such as Cabo Verde (287.95) carry the highest loads, indicating the urgent need for grant-first funding, debt conversion, and climate debt swaps.

The Per-Capita Climate Debt vs. Natural Capital Index shows an “ecological wealth paradox.” Many Sub-Saharan countries, such as the Democratic Republic of Congo, have rich natural capital but low debt, while others like Senegal and Cabo Verde hold high debt despite limited natural resources. South Asia maintains moderate values in both, and SIDS such as Kiribati and Cabo Verde combine high debt with low ecological capacity. Debt-for-nature swaps and grant-based adaptation funding are needed to address this imbalance.

The Total Climate Debt-to-Debt Service Ratio signals growing risks. Sub-Saharan Africa mostly remains below danger levels (e.g., Chad 0.03), but Cabo Verde (1.75) and Niger (1.25) face severe strain. Bangladesh (0.46) falls in the moderate-risk range, while SIDS like Cabo Verde exhibit structural vulnerability. High-burden countries require debt swaps and grant-based support.

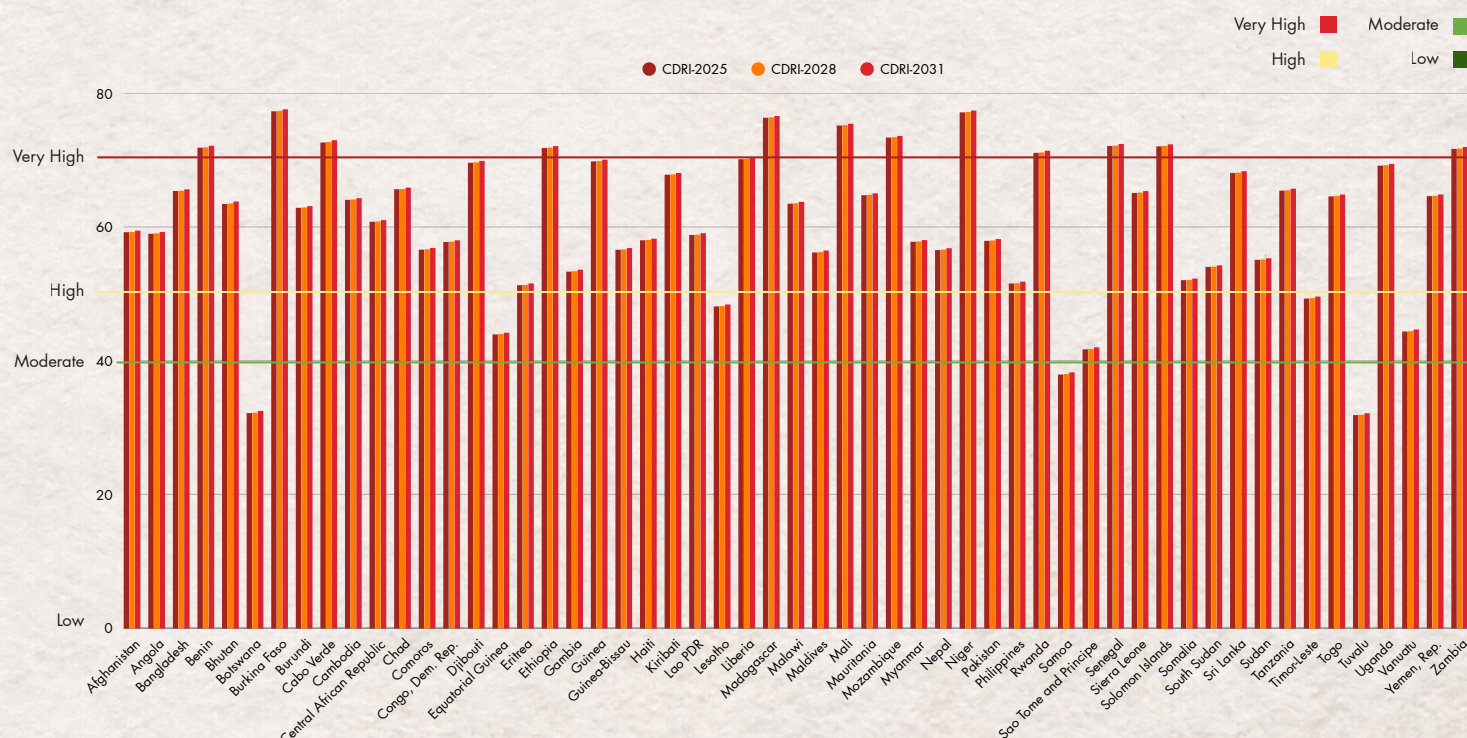


Figure: Climate Debt Risk Index-2025 (CDRI'25) Results

Per-capita cumulative debt levels further illustrate the disparity: Cabo Verde (USD 554.75), Kiribati (USD 167.93), and Bangladesh (USD 79.61) carry heavy loads due to climate exposure and limited revenue bases. Moderate burdens are seen in the Philippines (USD 20.00) and Mozambique (USD 14.32), while several African and small island states maintain low debt levels. Heavily indebted nations need immediate grant-based finance and debt relief.

Overall, climate finance distribution remains uneven. Loan financing dominates energy and transport sectors, while grants are concentrated in agriculture, disaster preparedness, and water. Countries like Bangladesh and Senegal, which face high climate exposure, also bear disproportionate debt loads. Adaptation finance remains insufficient, and delayed disbursement continues to hinder resilience-building in fragile and small island economies.

Misclassification of Climate Finance

Over the past decade, billions of dollars reported as climate finance have instead financed fossil fuel projects and unrelated ventures. Examples include Japan funding coal-fired power plants in Bangladesh and Indonesia, the United States financing a Marriott hotel in Haiti, and Italy supporting luxury chocolate shops in Asia. The European Bank for Reconstruction and Development (EBRD) classified a Moroccan coal port as climate finance, while the World Bank overstated up to USD 41 billion in untraceable expenditures. France counted loans for cancelled projects, and Belgium included a rainforest-themed romance film. Such misreporting inflates official climate finance figures, diverts resources away from genuine climate action, and undermines trust in international commitments. These findings underscore the urgent need for clear definitions, transparent reporting, and global accountability standards.

The Neo-Colonialism of Climate Debt

Climate Debt Risk Index (CDRI) exposes a growing climate debt trap in which vulnerable, low-emitting countries are forced to borrow billions to recover from climate disasters. Between 2009 and 2022, the total climate-related debt of Least Developed Countries (LDCs) rose by more than USD 21 billion, deepening fiscal vulnerability. Nations such as Madagascar, Mozambique, and Sri Lanka register some of the highest CDRI scores, as each new disaster compounds existing debt and diverts funds from essential services like health and education.

This imbalance reflects a wider injustice: the richest 10 percent of the global population generate over half of all greenhouse gas emissions, while the poorest who contribute least bear the greatest losses and mounting debt. With over 70 percent of climate finance now delivered as loans, the system has created financial fragility instead of resilience. Addressing this inequity requires restructuring global climate finance toward grants, debt relief, and climate debt swaps that recognize the historical responsibility of high-emitting nations.

Pathway to Climate Debt Freedom

The scale of untapped global revenue sources underscores how the climate crisis persists not because of financial scarcity but because of structural choices. A carbon levy aligned with Article 6.0 and priced at USD 100 per tonne of CO₂e across the estimated 65 GtCO₂e of global emissions could yield roughly USD 6.5 trillion annually, with even a modest arms-revenue levy adding another USD 0.06–0.12 trillion. Allocating these resources through an equity-centred framework generates a distributive landscape that mirrors global need: a dedicated LDC Climate Justice Window alone would command nearly one-third of total flows (USD 1.92 trillion), reflecting acute vulnerability and constrained fiscal space; a quarter would support the wider Global South transition (USD 1.5 trillion); one-fifth would facilitate domestic just transitions that ensure labour and sectoral alignment (USD 1.2 trillion); and the remainder would strengthen nature and biodiversity priorities consistent with NRLG principles (USD 0.9 trillion) and governance, MRV, and innovation systems (USD 0.48 trillion). Together, these figures illustrate that a rule-based global fiscal architecture could mobilize orders of magnitude more than the current climate finance system delivers, while distributing resources in ways that respond to differentiated responsibility, ecological stewardship, and justice-based transition needs.

- **Supply side (Developed Countries):** Make grants the default for adaptation and loss & damage, deliver 100% debt relief, scale debt-for-nature swaps, provide unconditional natural-rights-based support, and establish an Earth Solidarity Fund, multiple sourced (public, philanthropy and private) to mobilize real-time vulnerability specific direct grants to vulnerable communities.
- **Flow of funds bilateral, MDBs, multilaterals:** Provide grant-first approach aligning with the Natural Rights Led Governance System investment, shift portfolios so adaptation and loss & damage are financed primarily with grants. Moreover, to empower community-led MRV with transparent finance rules, link debt relief to resilience and nature protection, and reform MDBs toward rights-based, grant-focused climate finance with balanced mitigation-adaptation support. Stand up regional funds (e.g., SARF) capitalized by CIF, AF, GCF and partners.
- **Demand side - vulnerable LDCs:** Mobilize innovative finance, carbon pricing, pollution taxes, debt-for-nature swaps, bio-finance, strategic philanthropy, and private partners, while placing communities, especially youth, at the center of nature-led action. Establish a Natural Rights Fund in every LDC, financed by redirected fossil-fuel subsidies, carbon and pollution taxes, CSR, and Zakat, to provide predictable resources to frontline actors.

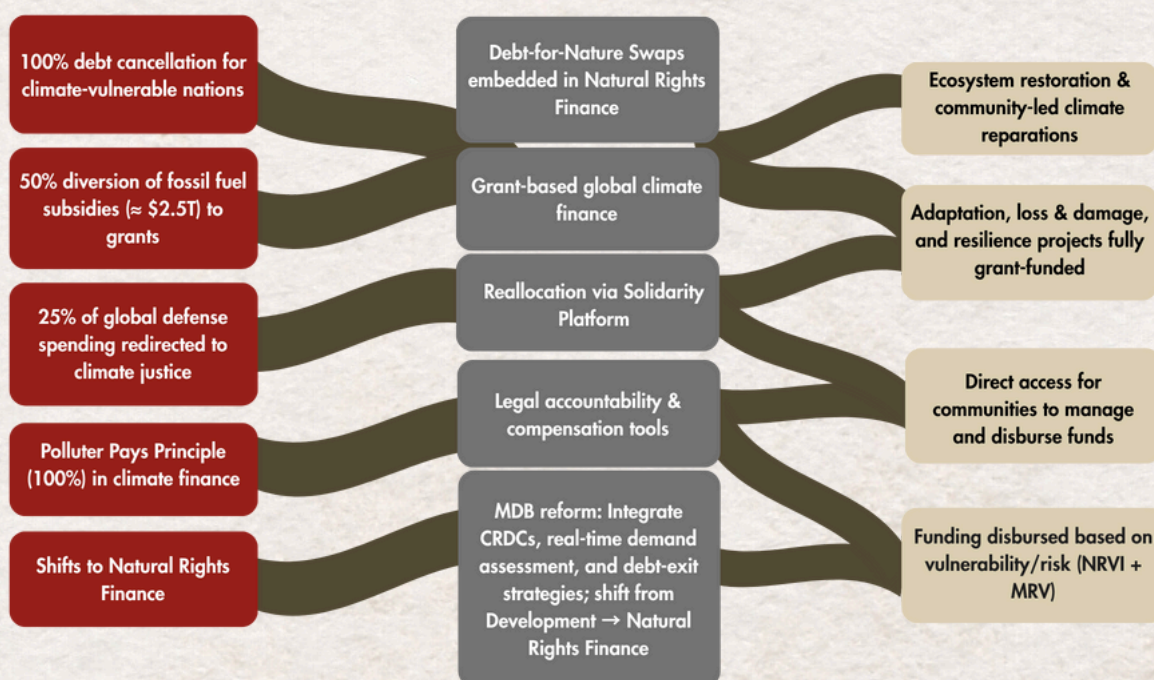


Figure: Potential Pathways for Equitable and Justice Based Climate Finance Towards Vulnerable Communities

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