



INSTITUTE OF
INTERNATIONAL
FINANCE

IIF Green Weekly Insight

Debt-for-nature swaps—tackling the triple threat

December 16, 2021

Khadija Mahmood, Economist, kmahmood@iif.com

Paul Della Guardia, Financial Economist, pdellaguardia@iif.com

Raymond Aycock, Research Analyst, raycock@iif.com

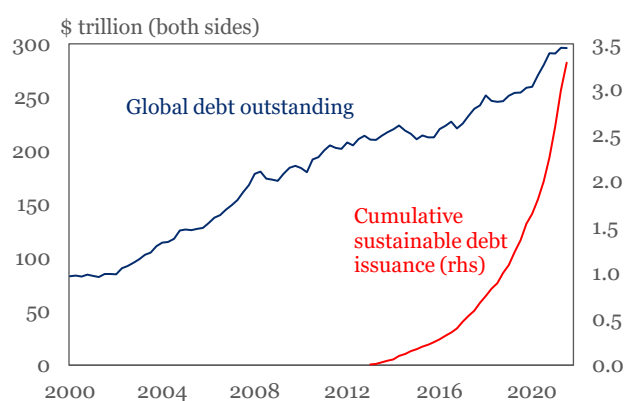
Editors: Emre Tiftik, Director, etiftik@iif.com; Sonja Gibbs, Managing Director, sgibbs@iif.com

- Low-income and lower-middle-income countries are tackling the triple threat of debt, climate change and biodiversity.
- The vast majority of sovereign and sub-sovereign debt restructurings do not incorporate ESG considerations.
- The recent experience of Belize highlights the potential benefits of debt-for-nature swaps in tackling this triple threat.
- Untapped potential: 30+ countries have used debt-for-nature swaps to fund more than \$1bn in environmental protection initiatives, though they have been used less frequently since the 1990s.

One instrument, many benefits: The case for debt-for-nature and climate swaps is increasingly evident as environmental, social and governance (ESG) considerations gain prominence in [sovereign debt markets](#), with cumulative issuance of sustainable debt [exceeding](#) \$3 trillion in 2021 (Exhibit 1). Introduced in the 1980s, debt-for-nature swaps are financial instruments that allow portions of a country's foreign debt (in hard currency) to be reduced or cancelled in exchange for commitments to invest (in local currency) in biodiversity conservation and environmental policy measures. Debt-for-nature swaps are also called debt-for-environment swaps (DFES) and can be classified as commercial/three-party, bilateral, or multilateral. Similarly, debt-for-climate swaps—a new innovation in development finance—offer debt relief to a country in exchange for payments to finance climate mitigation and adaptation projects, including renewable energy and carbon sequestration. Both debt swap categories involve countries that are financially distressed as well as those experiencing difficulties in repaying foreign debt. Accordingly, these [instruments](#) can address three urgent and interrelated problems in low-income and lower-middle-income countries (aka the triple threats): the buildup of [global debt](#), risks associated with [climate change](#) and the [risks to natural capital and biodiversity](#) (Exhibit 2).

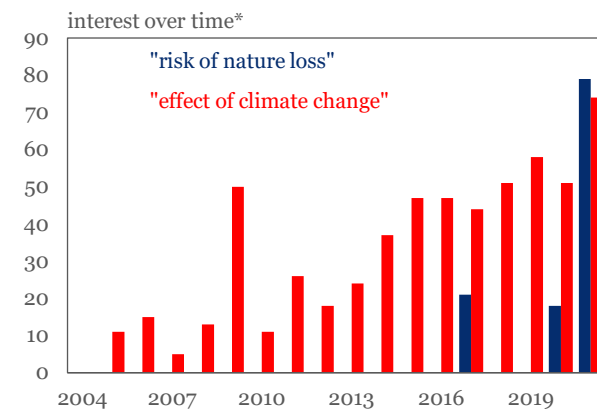
A brief history: Debt-for-nature swaps were initially created by private, non-governmental environmental groups as a means of protecting rainforests in Latin America—the first agreement was signed in 1987 between Bolivia and Conservation International. However, these instruments have been used less frequently since the 1990s. From 1987 to 2010, over 30 countries have participated in recorded debt-for-nature swaps to provide a total of over [\\$1 billion](#) for environmental conservation projects (Exhibit 3). The first debt-for-climate swap was used by [Seychelles](#) in 2016 with the Paris

Exhibit 1: Sustainable debt issuance tops \$3 trillion—rapid growth but still small vs. global debt markets



Source: IIF's [Global Debt Monitor](#) & [Sustainable Debt Monitor databases](#)

Exhibit 2: Much greater interest in the effects of climate change and the risk of nature loss



Source: Google trends; *Numbers represent search interest relative to the highest point on the chart for the given region and time. 100=peak popularity for the term, 50=term is half as popular, and 0=not enough data for this term

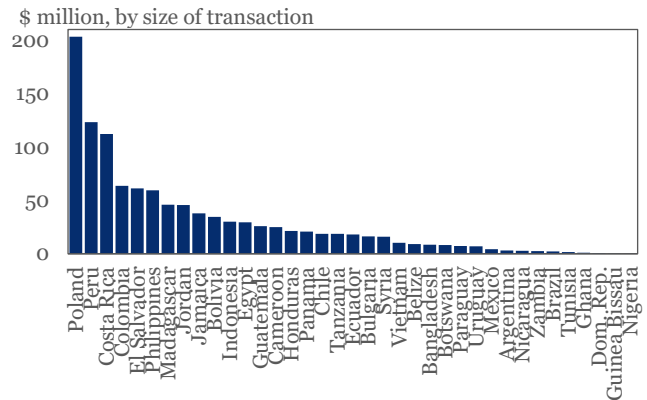
Club group of developed country creditors, targeting ocean conservation and climate resiliency. Although these swaps have often been proposed in recent decades as a source of climate finance in developing countries, particularly in the Caribbean, so far large-scale debt-for-climate swaps are not common.

Pros and cons of debt-for-nature and climate swaps:

When restructuring is unavoidable, debt swap agreements can create a relatively easy exit from debt payments at a high risk of default, with potential benefits to all parties. The *debtor country* reduces the total outstanding external debt either 1) by conversion to local currency and/or by paying a lower interest rate or 2) a total debt write-off. The debtor then has more purchasing power—it can buy back part of the debt on more favorable terms, freeing funds to pay for conservation initiatives and climate-friendly projects rather than debt service. In turn, these investments can stimulate private investment and assist in a sustainable economic recovery that incorporates climate resilience and environmental/biodiversity protection. By lowering debt ratios, debt-for-nature and climate swaps can also improve the credit-worthiness of the borrower and support the country’s credit trajectory. Moreover, better transparency on ESG factors opens the possibility of tapping into new pools of capital and helps issuers regain market access more quickly—at a more affordable cost. *Creditors* reduce risky claims via swaps and improve the long-term value of their investments. Finally, the *local conservation or environmental trust fund* in a debt-for-nature swap, which is responsible for administration, achieves their conservation goals and generates funding at a discount. Exhibit 4 shows a sample swap design.

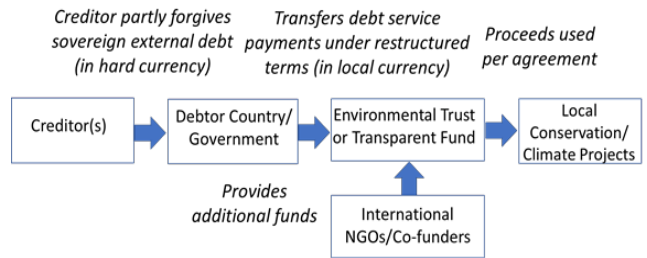
For the most part, sovereign, and sub-sovereign debt restructurings have not incorporated ESG considerations, despite concerted investor attempts to achieve this goal in certain cases. One recent groundbreaking example is the Government of Belize’s proposed [“blue bond” restructuring](#). Nevertheless, a replicable mechanism to layer ESG considerations into restructured debt markets has remained out of reach, partly due to country-specific challenges. Some challenges include imperfect commitment mechanisms, timing and logistical constraints, lack of transparency, divergent impact measures, debtor countries’ potential loss of legislative leverage and sovereignty to foreign entities, and lack of resource preservation for domestic development—see [ESG Considerations for Sovereign Debt Restructuring, Chapter 9 of the 2021 PCG Annual Report](#). Furthermore, criticism of debt-for-nature swaps may have contributed to the waning uptake in recent years. Critiques include mismanagement by the local conservation organization, overstated financial benefits of swaps, and misdirection of the funds generated.

Exhibit 3: Recorded debt-for-nature swap transactions by country, 1987-2010



Source: [Sheikh, Pervaze A. \(March 30, 2010\)](#)

Exhibit 4: Design of a typical debt-for-nature and climate swap

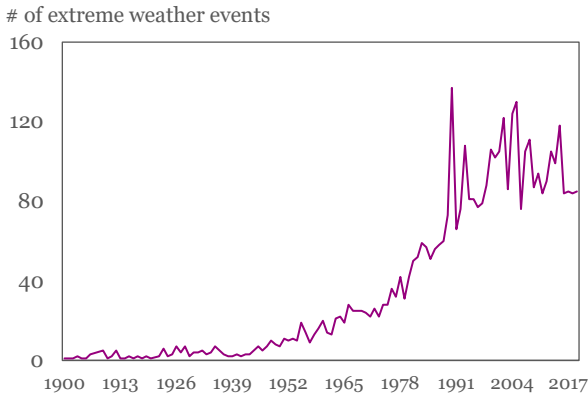


Source: [Climate Policy Initiative, IIF](#)

Looking ahead: Given the growing importance of ESG factors, identifying mechanisms that allow debt workouts to incorporate them will require close collaboration of various players: Paris-Club and non-Paris Club bilateral creditors, multilateral official creditors, credit rating agencies, and the private sector. Given the complexity of debt restructurings, these debt workouts should be narrowly focused, under the responsibility of economic authorities, and inclusive of environmental and social budget disclosures. By using debt-for-nature swaps and other ESG-aligned instruments, sovereigns can establish a strong foundation for ESG engagement, expand their access to global capital markets, and develop the foundation for deeper and more targeted ESG KPIs.

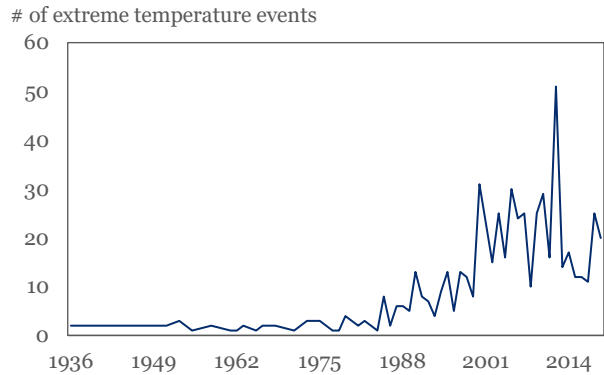
Weekly ESG Chartbook: Natural Catastrophes

Global extreme weather events have been on the rise since 1900



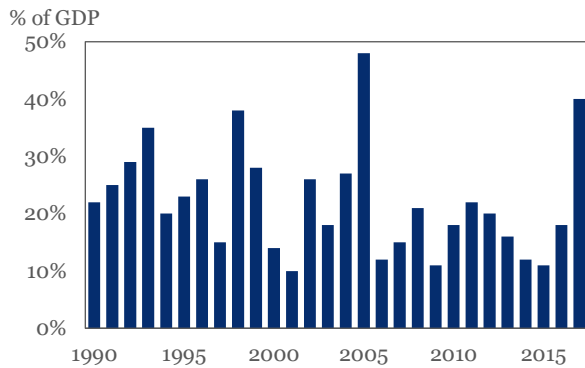
Source: EM-DAT, IIF

Global extreme temperature events have steadily increased since the 1990s



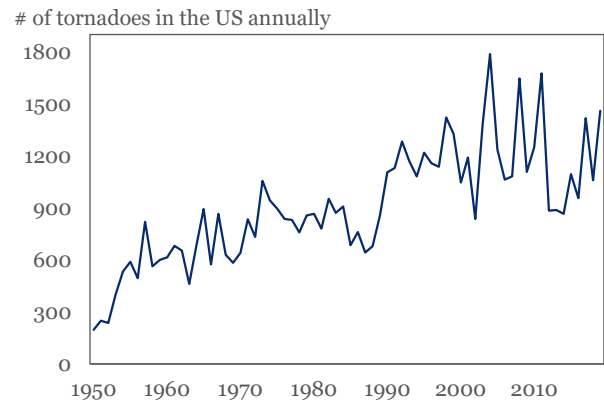
Source: EM-DAT, IIF

Weather disaster losses as a percentage of global GDP



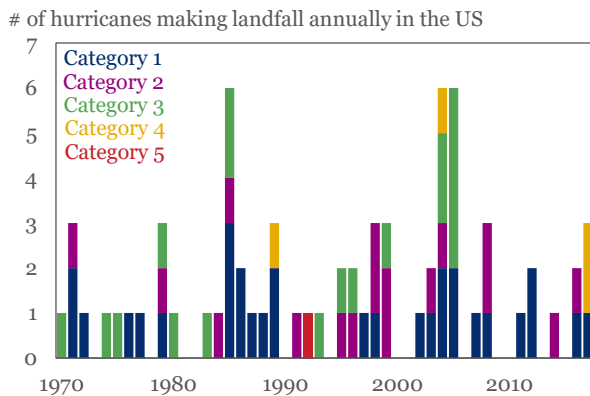
Source: Our World in Data, IIF

Total number of tornadoes in the US has increased over the past decade



Source: NOAA SPC, IIF

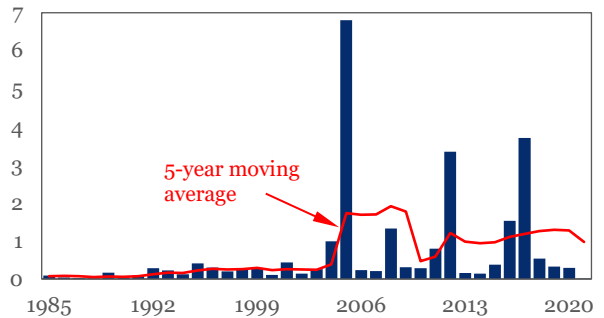
Number of hurricanes making landfall in the US annually



Source: NOAA HURDAT, IIF; *hurricanes are categorized by the Saffir-Simpson hurricane wind scale categories (1=lowest, 5=highest)

Floods are responsible for the most climate-related damage in the U.S., generating large insured losses

\$ billion, amounts paid by National Flood Insurance Program on building claims



Source: IIF, FEMA/National Flood Insurance Program (NFIP)

Recent reports:

- [Can hydrogen drive decarbonization?](#) (12/09/2021)
- [Navigating to Net-Zero: Greenflation Risk](#) (12/02/2021)
- [Sustainable Finance Monitor – November 2021](#) (11/30/2021)
- [IIF COP26 Outcomes and Implications](#) (11/22/2021)
- [Net zero – with or without nuclear?](#) (11/18/2021)
- [Global Debt Monitor: Confronting Climate Change and Policy Normalization](#) (11/17/2021)
- [The EU Carbon Border Adjustment Mechanism](#) (11/10/2021)
- [COP Views – Developing Countries Need Market Access](#) (11/4/2021)
- [Notes from DC: ESG themes from our AMM](#) (10/21/2021)
- [Frontier Debt Monitor: Debt Hit New Highs, but Borrowing Subsidies](#) (10/08/2021)
- [Sharp Slowdown in ESG Flows](#) (10/05/2021)
- [Greening the Agriculture Sector -- Part 2](#) (09/28/2021)
- [Greening the Agriculture Sector -- Part 1](#) (09/20/2021)
- [Global Debt Monitor: Reassessing the Pandemic Impact](#) (09/14/2021)
- [A Closer Look at Public Sector Debt Transparency Initiatives](#) (08/30/2021)
- [ESG Funds – More Please!](#) (07/22/2021)
- [Mapping the Sustainable Investment Universe](#) (07/15/2021)
- [Sustainable Debt Monitor: A Record-Breaking Year](#) (07/14/2021)
- [The Next Big Thing – Sustainability-linked Bonds](#) (07/08/2021)
- [Returns, Volatility, and Liquidity in ESG Bond Markets](#) (07/01/2021)
- [Tackling the Infrastructure Jigsaw](#) (06/24/2021)
- [Better Dialogue, Better Investor Relations](#) (06/17/2021)
- [Updating the Principles for Stable Capital Flows and Fair Debt Restructuring](#) (06/10/2021)
- [The Need for Better Debt Transparency](#) (06/03/2021)
- [Mind the green R&D gap!](#) (05/27/2021)
- [Global Debt Monitor: Chipping Away at the Mountain?](#) (05/13/2021)
- [Greening Real Estate Markets](#) (05/06/2021)
- [Sustainable Finance Monitor – April 2021](#) (04/30/2021)
- [Navigating Net Zero](#) (04/29/2021)
- [Sustainable Debt Monitor: Race to net zero drives ESG debt flows](#) (04/22/2021)
- [ESG and Emerging Markets](#) (04/15/2021)
- [S in the Spotlight](#) (04/08/2021)
- [Frontier Market Debt Monitor: Double-edged Sword](#) (04/05/2021)
- [ESG in Bond Markets](#) (03/25/2021)
- [The Social Cost of Carbon](#) (03/18/2021)
- [Beyond Climate Change](#) (03/11/2021)
- [Beyond the DSSI](#) (03/04/2021)
- [Carbon Efficiency 101 – Emerging Markets](#) (02/25/2021)
- [Global Debt Monitor: COVID drives debt surge – stabilization ahead?](#) (02/17/2021)
- [Sustainable Finance Monitor – February 2021](#) (02/16/2021)
- [Carbon Efficiency 101](#) (02/11/2021)
- [Chinese debt – still on the rise](#) (02/04/2021)
- [ESG Disclosure - from chaos, order?](#) (01/28/2021)
- [Sustainable Debt Monitor: Up, up and away](#) (01/21/2021)
- [Heyday for EM corporate Eurobonds](#) (01/14/2021)