

Public-Private Synergy in Climate Financing

Addressing the Climate Finance Gap to Achieve Climate Mitigation and Adaptation Targets

The urgent need for climate adaptation and mitigation strategies in developing and least-developed countries necessitates robust climate finance. Climate finance is the investment specifically made in adaptation-mitigation projects. It is based on the idea that developed countries, which have historically emitted more carbon, have a responsibility to financially help those who emit less.

Climate finance, to date, has been dominated by the public sector, which comprises almost 70 percent of the total finance provided to developing countries between 2013 and 2020. However, there are certain shortfalls associated with public finance.

To bridge these gaps, public-private partnerships are essential. The Policy Brief underscores the importance of private sector participation in climate and biodiversity financing. It suggests that the public sector can catalyse private investment by mitigating risks and providing incentives. The brief outlines strategies to attract private capital and offers policy recommendations to create a conducive environment for private players.

India's Commitment to Prioritise Climate Action, Adaptation and Mitigation in G20 Summit

India's commitment to climate action has strengthened, highlighted in the G20 declaration. India aims for net-zero emissions by 2070, prioritising mitigation and adaptation for vulnerable communities. G20 facilitated impactful discussions on climate threats for Least Developed Countries (LDCs) and Small Island Developing

States (SIDS). The commitment to restoring 30 percent of degraded ecosystems recognises the interconnectedness of biodiversity loss with climate change.

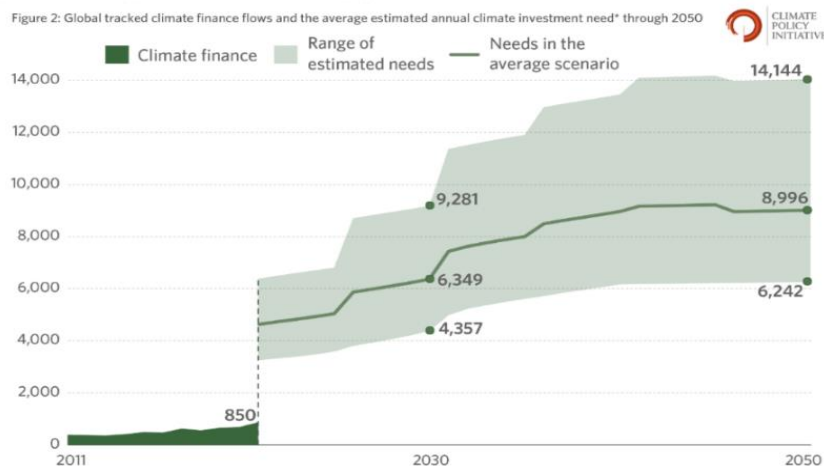
Needless to say, any action-based climate plan requires financial strength to execute. Developing countries need robust financial assistance to translate adaptation mitigation plans into implementation. The recommendations laid out by the Sustainable Finance Working Group have gained attention at the summit as they direct us to the importance of blended finance and the private sector’s involvement in climate financing.

The declaration has also emphasised the role of Multilateral Development Banks in offering concessional loans for developing countries in their climate actions and in de-risking climate financing for the private sector. The summit has also advocated for the second replenishment of the Green Climate Fund, and an effective carbon pricing that is critical to the global ambition of carbon neutrality.

Climate and Biodiversity Finance Gap and Public Sector’s Limited Ability

Although the annual climate finance has grown over time, there is a significant gap in the financial amount required to meet the adaptation-mitigation targets and the amount received by the developing countries. This raises a question on the possibility of achieving the target of restricting the global temperature rise to 1.5°C. The current level of climate financing at about 630 billion dollars is a very small fraction of what is needed. It has been estimated that 3 to 6 trillion dollars per year will be required till 2050 (IMF, 2022).

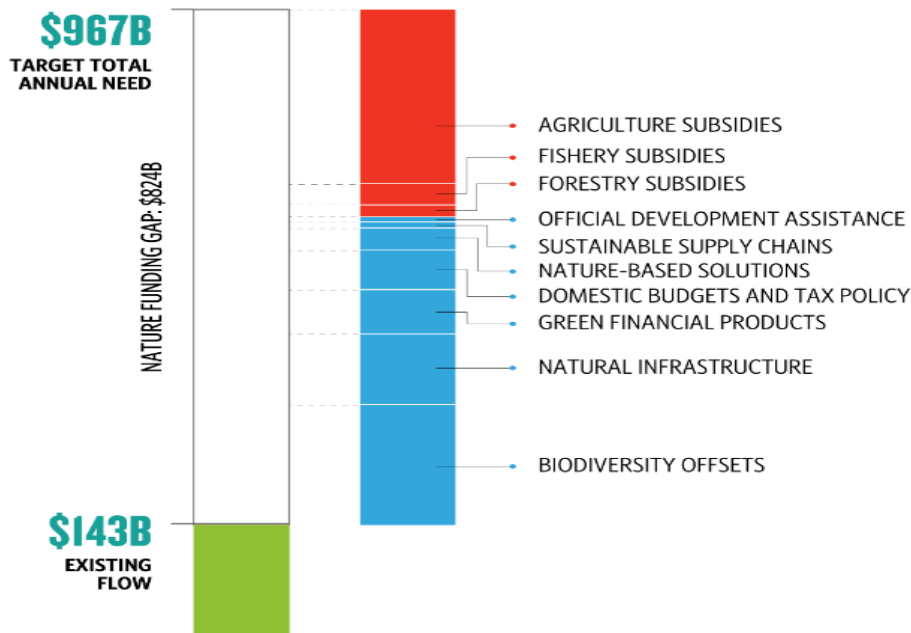
Figure 1: Climate Finance Gap



Source: *Global Landscape of Climate Finance – Climate Policy Initiative (2021)*

According to the Climate Policy Initiative analysis (2022), annual climate finance needs an upscaling of 590 percent to meet the climate objectives by 2030. Similar to climate finance, the gap exists in global biodiversity finance as well. Climate change and biodiversity loss go hand in hand. Given the current rate of biodiversity loss, the 824 billion dollars per year gap needs to be bridged (The Nature Conservancy, 2020).

Figure 2: Biodiversity Finance Gap



Source: *Financing Nature: Closing the Global Biodiversity Funding Gap* – The Paulson Institute, The Nature Conservancy (2020)

Climate and biodiversity financing has been historically dominated by bilateral and multilateral public channels but the huge financing gap points to the limited capability of public financing. Moreover, the public sector has other social priorities and contingencies to direct its funds. Therefore, public finance, alone, is unable to bridge the current gap. In this scenario, private-sector financing becomes highly relevant. It is then imperative to say that collaboration and integration of the public and private sectors is immediately required in the domain of climate and nature finance to make it meaningful.

Current Gaps in Global Climate Finance

Climate finance, comprising mitigation, adaptation, cross-cutting, and other categories, is crucial in transitioning to a low-carbon and sustainable global economy.

In COP 15, held in Copenhagen in 2009, developed countries committed to providing US\$100bn in climate finance per year to developing countries by 2020 (CSE, 2023). However, what seems like a promising step by the developed countries in addressing the aftermaths of climate change disasters and mitigation needs of developing and less developed countries has gaping holes.

Adaptation Finance Continues to Lag

The adaptation sector, which aims to reduce the vulnerability of people and ecosystems to climate change, received only US\$63bn in 2021-22, or about 5 percent of total climate finance, where US\$49bn, US\$57bn, US\$55bn, and US\$72bn were allocated to adaptation in 2019, 2020, 2021, and 2022, respectively.

The Adaptation Gap Report 2023 by the United Nations Environment Programme (UNEP) revealed that adaptation finance for developing and least-developed countries is lagging. Over 50 low-income and developing economies require adaptation funding exceeding 1 percent of GDP per year, reaching 20 percent for small island nations vulnerable to tropical cyclones and sea-level rise (IMF, 2022).

However, adaptation finance flows have declined as a proportion of total climate finance. The adaptation finance needs of developing countries are 10-18 times as big as international public finance flows. The modelled adaptation costs in developing countries are estimated at US\$215bn per year this decade. The financial requirements for adaptation in developing nations are projected to range from US\$140bn to US\$300bn annually by 2030 and rise to US\$280bn to US\$500bn by 2050 (UNEP 2021).

However, the estimates of current global expenditure on adaptation remain less than US\$50bn annually. Despite recent increases in adaptation finance relative to mitigation, it still constitutes less than 10 percent of total climate investments, with developed countries contributing only 34 percent of the US\$100bn goal during 2016-20 (CPI, 2021).

Private investments, too, towards adaptation were meagre. The focus was on mitigation. If adaptation and climate finance in 2021 and 2022 are compared, US\$545bn and US\$674bn were directed towards mitigation in 2021 and 2022,

respectively, compared to a mere US\$1bn and US\$2bn towards adaptation. Adaptation was a neglected part of climate finance, and it remains neglected.

There are several factors attributed to why adaptation finance remains underinvested. The absence of clear financial returns for private investors in adaptation projects, reluctance to invest in perceived high-risk areas, and deficiencies in long-term planning, technical capacity, and data were identified as a few factors (CPI, 2023).

The CPI also evaluates the commitments of 60 public financial institutions towards adaptation and finds that these commitments continue to be insufficient, opaque, and lack clear delivery timelines.

Concentration of Climate Finance in a Few Geographies

Another major gap identified in the current finance was the concentration of finance in a few geographies. Three-quarters of global climate investments were concentrated in East Asia and the Pacific, Western Europe, and North America, while the remaining regions received less than a quarter.

Specifically, East Asia and the Pacific accounted for almost half (US\$292bn) of the total tracked global climate investments in 2019-20, amounting to US\$632bn, representing an increase of US\$43bn compared to 2017-18. In comparison, sub-Saharan Africa received US\$17bn, the US and Canada received US\$83bn, and South Asia received US\$30bn (CPI, 2021).

In terms of income groups, lower-middle-income countries (LMICs) were the primary beneficiaries, accounting for 43 percent of total climate finance provided and mobilized during 2016-21. In 2021-22, the majority (84 percent) of global climate finance originated from East Asia and the Pacific, the US and Canada, and Western Europe. China led in domestic climate finance mobilisation, contributing 51 percent globally.

International finance increased by 35 percent, with developed economies committing 84 percent, and emerging markets and developing economies (EMDEs) contributing 13 percent. However, least developed countries (LDCs) received less than 3 percent, and the ten most climate-affected countries received less than 2 percent of total climate finance (CPI, 2023).

Concentration of Finance in a Few Sectors

Not only lagging in uneven distribution in different geographies, climate finance also is lagging in different sectors in terms of equitable allocation of funds. Some sectors received heavy funding while some sectors remained underfunded. Water and Wastewater Management in the adaptation sector and energy system in mitigation received most of the funding. The climate finance numbers validate this statement. Adaptation funds received were only US\$63bn in 2021-22, and most of them were directed towards water and wastewater management, with US\$16bn, US\$20bn, US\$23bn, and US\$39bn in the years 2019, 2020, 2021 and 2022, respectively.

Conversely, mitigation attracted most of the funding securing an average annual funding of US\$1008bn and US\$1293bn, respectively, and energy systems took away most of the mitigation funds with US\$346bn, US\$462bn, and US\$559bn in 2020, 2021, and 2022, respectively, followed by substantial investment in the transport, buildings, and infrastructure sectors (CPI, 2023).

The energy sector relies heavily on private finance, while the transport sector leans on public sources. The building sector sees a mix of public and private contributions, with an industry dominated by corporate financing. Land use relies on public finance, and adaptation is predominantly funded by public sources. Instrument and recipient dynamics vary across sectors. The energy sector employs diverse instruments like equity, debt, grants, guarantees, and carbon markets. Transport mainly uses debt and grants; buildings rely on debt and grants; industry on equity and debt; land use on grants and carbon markets; and adaptation on grants and debt.

The Major Financial Instrument in Climate Finance is “Debt”

Most of the climate funds generated for adaptation and mitigation were raised in the form of debt. The major share of global finance instruments in 2021-22 was project-level market rate debt, which accounted for 44 percent of the total climate finance flows. This was followed by balance sheet financing (39 percent), low-cost project debt (6 percent), grants (5 percent), and project-level equity (4 percent).

The funding intends to help vulnerable and poor countries tackle the aftermaths of climate change and adapt to it; however, this debt is doing more harm than good for developing countries. Even though the World Bank and other multilateral development banks provide low-cost concessional loans to the poorest countries, these loans are still above the market rate.

Table 1: Source: Global Landscape of Climate Finance 2023
(All numbers are in US\$ bn)

Instrument	2017	2018	2019	2020	2021	2022
Balance sheet financing (debt portion)	209	224	104	119	102	156
Balance sheet financing (equity portion)			142	170	306	431
Grants	25	30	31	29	57	80
Low-cost project debt	51	79	55	66	78	74
Project-level equity	52	38	56	46	50	58
Project-level market-rate debt	271	168	246	225	513	609
Unknown			6	10	8	6
Total	608	539	640	665	1114	1415

Private Investment in Global Climate Financing

Private financing is a key enabler of climate action, supporting the development and deployment of low-carbon and climate-resilient technologies, practices, and policies. It can play a crucial role in reducing reliance on fossil fuels, the primary source of greenhouse gas emissions, and fostering opportunities for green growth and innovation (IPCC, 2022).

Additionally, according to the UNDP report, "The Ecosystem of Private Investment in Climate Action," private investment is imperative to close the multi-trillion-dollar climate investment gap and achieve the goals of the Paris Agreement and the 2030 Agenda for Sustainable Development. The report highlights the crucial role of private investors, who control the majority of global financial assets and can mobilize capital at scale (UNDP).

The Need and Scope of Private Investment in Adaptation Projects

An estimated US\$10.1tn will be required to achieve net zero by 2070 in India (CEEW). An imbalance in Climate Financing is visible. Both public and private sectors are funding mitigation projects; however, the public sector does comparatively better than the private sector here, taking into account that it funds certain adaptation projects. The statement stresses the importance of investing substantial resources in building climate resilience and adapting to ongoing changes by both the public and private sectors. Public investment alone is deemed insufficient to meet India's ambitious

adaptation and mitigation targets, making private-sector financing essential to scale climate solutions urgently (CPI, 2023).

The expected increase in public funding for adaptation in the coming decade must align with the growing challenges of adaptation. To meet financing needs, it is crucial to use limited public funds wisely to attract substantial capital from the private sector. The Landscape Resilience Fund provides a noteworthy example: an initial commitment of US\$1.3mn from the GEF led to the mobilisation of US\$25mn in private finance. This initial support has further spurred additional private investments from SMEs and other investors.

Substantial increases in both public funding and private investment are essential, accompanied by the redirection of finance flows harmful to nature. Public funding remains essential, yet the potential exists for private finance to elevate its contribution to nature-based finance from the current 18 percent to 33 percent by 2050 (UNEP, 2023).

Current Investments and Barriers to Climate Financing by the Private Sector

Private climate investments increased by 13 percent from 2017 to 2018 to US\$310bn. However, private sector institutional climate commitments towards the alignment of private finance flows with a climate-resilient pathway have been limited. The private actors provided 49 percent of total climate finance (US\$625bn) in 2021-22. The public sector plays a critical role in mobilising private investment, and multilateral development banks have an important role to play as conveners and facilitators for this approach.

During 2022, private funding of US\$674bn predominantly favoured mitigation efforts, allocating only US\$2bn to adaptation. In contrast, public finance allocated US\$70bn to adaptation and a substantial US\$619bn to mitigation. The number highlighted a notable divergence in priorities between the private and public sectors, with a stronger emphasis on investing in Mitigation projects by private financing (CPI, 2023).

In India, for the adaptation sectors, the total amount of green finance was ₹37,000 crores (US\$5bn) per annum over 2019-20. The major source of adaptation funding was domestic (94 percent), and it was fully funded by central and state government budgets. (CPI, 2022)

Table 2: CPI Report 2023 (All numbers are in US\$ bn)

Sources	2020	2021	2022
Private	333	565	685
Adaptation	2	1	2
Mitigation	328	545	674
Dual Benefits	3	9	9
Unknown		0.4	0.2
Public	332	549	730
Adaptation	55	54	70
Mitigation	261	453	619
Dual benefits	16	42	41
Total	665	1114	1415

Barriers to Private Investment in Adaptation in Developing Countries

The World Bank and IFC recently released a report identifying barriers that were hindering the attraction of private finance, especially for adaptation projects. These barriers can be categorised into three broad groups (IFC, 2021).

- First, the absence of country-level climate risk and vulnerability data and information services that can guide investment decision-making;
- Second, a lack of clarity regarding the government's capital investment gaps to achieve adaptation goals and where private investment is needed; and
- Third, low perceived or actual returns on investment.

Recommendations

Certain recommendations were made by the IFC to tackle these barriers and facilitate the influx of private finance for effective climate adaptation measures, and they were as follows:

- Provide access to localised data and integrate climate risks into capital investment planning conducted by governments and their partners;
- Establish institutional frameworks for multi-sector adaptation planning, emphasising the need for clear articulation of adaptation and resilience goals at the national level through policies, regulations, and standards specifying roles and responsibilities (IFC, 2021); and

- Strengthen financial incentives (or reduce risks and costs) for private participation through blended finance, guarantees, co-financing, and a risk-tolerant capital structure.

Ways to Involve Private Capital in Climate Finance

Blended Finance

Blended finance is a way of combining public, private, and philanthropic funds, recognised as a solution to the funding gap in the Third International Conference on Financing for Development in July 2015, to support projects that have social and environmental benefits in developing countries. The funding aims to reduce the risks and increase the returns for private investors who want to contribute to the United Nations Sustainable Development Goals (UN SDGs) (Impact, 2021).

It enhances the risk-return dynamics of an investment by consolidating capital with diverse financial and non-financial return expectations within an investment structure. This method effectively addresses apprehensions related to financial uncertainty and knowledge gaps, facilitating the mobilisation of private capital that might not be accessible otherwise (WRI, 2023).

The Land Degradation Neutrality (LDN) Fund

The Land Degradation Neutrality (LDN) fund is an example of blended finance, emphasising social and environmental returns alongside financial gains. Managed by investment firm Mirova, it was launched during the United Nations Convention to Combat Desertification (UNCCD) COP 13 in China to promote sustainable business in agriculture, forestry, and land-use sectors, including ecotourism.

Guarantees and Co-financing

Guarantees and co-financing are two ways of attracting private investment in climate finance, especially for adaptation projects that face high risks and uncertain returns. Guarantees are instruments that reduce the risk of loss for investors by promising to pay back a portion of the principal or interest in the event of default. Co-financing is a mechanism that involves multiple sources of funding for a project, such as public, private, or multilateral entities, to share the costs and risks.

The Multilateral Investment Guarantee Agency (MIGA)

It is a member of the World Bank Group and provides guarantees covering country and contract risks to encourage investment in developing countries. MIGA has supported several adaptation projects, such as a hydroelectric plant in Nepal, a geothermal power plant in Indonesia, and a water supply project in Ghana.

Risk-Tolerant Capital Structure

Risk-tolerant capital structure for private finance is a way of arranging the sources of funding for a business or a project that can withstand higher levels of uncertainty and potential losses. It usually involves a mix of equity and debt that is flexible, patient, and concessionary, meaning that the investors are willing to accept lower returns, longer payback periods, and more adaptable terms. Risk-tolerant capital structure can help attract private investment for climate adaptation, which is often seen as risky and low-return by conventional investors.

The Global Fund for Coral Reefs

It supports the "blue economy" by providing growth equity for coral reef protection and related activities. Using a blended finance approach, it combines public, philanthropic, and private capital to achieve environmental and financial goals. The fund's risk-tolerant capital structure involves different investor layers with varying risk and return levels. Its objective is to catalyse US\$500mn in coral reef conservation and restoration by 2030.

Case Study

An illustrative case demonstrating the prevalence of private finance over public finance in the realm of climate finance is the Amundi Green Bond Fund. It invests in green bonds from emerging markets, with the support of the World Bank's International Finance Corporation (IFC). The fund aims to promote a green, resilient, and inclusive recovery from the COVID-19 pandemic, as well as to address the challenges of climate change and inequality.

The fund was launched in 2017 and has since grown to US\$1.42bn, with a target of deploying US\$2bn over its lifetime (IFC, 2021). The fund has also partnered with the Asian Infrastructure Investment Bank (AIIB) to create a US\$500mn Asia Climate Bond Portfolio, which focuses on renewable energy, energy efficiency, and low-carbon transportation projects.

The Annual Impact Report for 2021 highlights an overview of the strategy, including scores for mitigation, adaptation, and transition. The report discloses the quantity of Greenhouse Gas Emissions avoided, adhering to the industry standard for green bond issuers. By the end of 2021, the strategy surpassed its target goal, avoiding a total of 79,628 tonnes of CO₂ equivalent (tCO₂e) emissions, compared to the target of 18,000 gross tCO₂e. To put it in perspective, this achievement is equivalent to the emissions avoided from driving an average passenger vehicle for 702,638 miles.

Conclusion

A notable gap exists in adaptation and biodiversity funding, characterised by regional and sectoral imbalances, particularly with the private sector diverting the majority of its funds predominantly to mitigation projects. To bridge this gap, governments must offer transparent data and financial incentives, promoting blended finance opportunities where private investments can be directed towards the adaptation sector.

Achieving a more equitable distribution of funds among different geographies and sectors is imperative. However, meeting global climate goals requires collaborative efforts, innovative financial instruments, and strengthened public-private sector partnerships to address the challenges of climate change and build a sustainable, resilient, and equitable future for all.

Therefore, tools like guarantees, co-financing, and risk-tolerant capital structures play an essential role in encouraging private investment in climate finance, thereby helping developing and less developed countries combat the challenges of climate change and move to a low-carbon and sustainable economy.

Bibliography

Adaptation Gap Report (2023, November)

<https://www.unep.org/resources/adaptation-gap-report-2023>

Arame et al (March 2022) *Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action*

<https://openknowledge.worldbank.org/entities/publication/6219bf23-87e1-5f30-aaf9-30e0cd793ce3>

CEEW, 2021 *Investment Sizing India's 2070 Net-Zero Target*

<https://www.ceew.in/cef/solutions-factory/publications/CEEW-CEF-Investment-Sizing-India%E2%80%99s-2070-Net-Zero-Target.pdf>

Choi et al (2023, May) *What it takes to attract private investment to climate adaptation* <https://climatechampions.unfccc.int/what-it-takes-to-attract-private-investment-to-climate-adaptation/>

Climate Policy Initiative (2021) *Global Landscape of Climate Finance 2021*

<https://www.climatepolicyinitiative.org/wp-content/uploads/2021/09/Presentation-Slides-I-GLCF-2021.pdf>

Climate Policy Initiative (2022) *Global Landscape of Green Finance in India 2022*

<https://www.climatepolicyinitiative.org/publication/landscape-of-green-finance-in-india-2022/>

Climate Policy Initiative (2023, December) *State and Trends in Climate Adaptation Finance 2023*

<https://www.climatepolicyinitiative.org/publication/state-and-trends-in-climate-adaptation-finance-2023/>

CSE India Report. (2023) <https://cdn.cseindia.org/COP28/Climate-Finance.pdf>

Deutz, A., Heal, G. M., Niu, R., Swanson, E., Townshend, T., Zhu, L., ... & Tobin-de la Puente, J. (2020). Financing nature: Closing the global biodiversity financing gap. *The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability.*

https://www.nature.org/content/dam/tnc/nature/en/documents/FINANCINGNATURE_FullReport_091520.pdf

Georgieva and Adrian. (2022, August 18). *Public Sector Must Play Major Role in Catalysing Private Climate Finance*. International Monetary Fund.

<https://www.imf.org/en/Blogs/Articles/2022/08/18/public-sector-must-play-major-role-in-catalyzing-private-climate-finance>

IMF (2022, March) *Poor and Vulnerable Countries Need Support to Adapt to Climate Change* <https://www.imf.org/en/Blogs/Articles/2022/03/23/blog032322-poor-and-vulnerable-countris-need-support-to-adapt-to-climate-change>

IPCC (2022) *Climate Change 2022: Impacts, Adaptation and Vulnerability* https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf

Ministry of External Affairs. (2023). *G20 New Delhi Leaders' Declaration*. <https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf>

Songwe et al. (2022, November). *Finance for climate action: scaling up investment for climate and development*. Independent High-Level Expert Group. <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/11/IHLEG-Finance-for-Climate-Action-1.pdf>

The World Bank Group. (2020). *Mobilizing Private Finance for Nature*. <https://thedocs.worldbank.org/en/doc/916781601304630850-0120022020/original/FinanceforNature28Sepwebversion.pdf>

UNEP (2023, December) *Global annual finance flows of \$7 trillion fueling climate, biodiversity, and land degradation crises* <https://www.unep.org/news-and-stories/press-release/global-annual-finance-flows-7-trillion-fueling-climate-biodiversity>

UNEP (January 2022). *Annual Report 2021* <https://www.unep.org/annualreport/2021/index.php>

This Briefing Paper has been written by Pracheta Acharya and Sanobar Imam, Research Associates, CUTS International.

© CUTS International 2024. This Briefing Paper is published by CUTS Centre for Competition, Investment & Economic Regulation (CUTS CCIER), D-217, Bhaskar Marg, Bani Park, Jaipur 302 016, India. Ph: +91.141.228 2821, Fx: +91.141.228 2485, E-mail: c-cier@cuts.org, Web: www.cuts-ccier.org.

Also at Delhi, Calcutta and Chittorgarh (India); Lusaka (Zambia); Nairobi (Kenya); Accra (Ghana); Hanoi (Vietnam); Geneva (Switzerland); and Washington DC (USA).