

THE IMPACT OF CLIMATE FINANCE AND ITS SOURCES IN THE DEVELOPED AND DEVELOPING COUNTRIES

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ABSTRACT:

Climate finance refers to the financial resources allocated to support global efforts aimed at mitigating the effects of climate change and adapting to its impacts. As the world grapples with the growing threat of climate change, climate finance has emerged as a crucial mechanism to support countries, businesses, and communities in transitioning to a lowcarbon, sustainable future. *This research explores the key aspects of climate finance, examining the flow of capital from public and private sources, the role of international agreements such as the Paris Agreement, and the mechanisms available to finance climate action, including green bonds, climate funds, and investment in clean technologies. The study investigates the challenges and opportunities in climate finance, such as the gap between the financial needs of developing countries and the resources available to meet them, as well as the integration of climate-related risks into financial decision-making. A key focus is on the growing significance of private sector involvement in financing climate initiatives and the integration of Environmental, Social, and Governance (ESG) criteria into investment strategies. Additionally, the research highlights the importance of climate adaptation financing, particularly for vulnerable regions facing severe environmental impacts such as rising sea levels, extreme weather events, and droughts. By exploring global efforts and national strategies to mobilize climate finance, the research aims to provide insights into how financing mechanisms can be optimized to accelerate climate action, foster sustainable development, and enhance resilience to climate change impacts. And the addresses of the climate finance of this year (cop 29).*

KEY WORDS: climate finance, flow of capitals, Paris agreement, investment-funds,

INTRODUCTION:

The concept of just transitions evolves from the idea that countries need to achieve a balance between their development needs to provide access to clean and affordable energy and meet their commitments to contribute to the reduction of global GHGs emissions. Climate finance has been central to India's energy transition needs. *According to the UNFCCC, "Climate finance refers to local, national, or transnational financing, which may be drawn*

from public, private, and alternative sources of financing that seeks to support mitigation and adaptation actions that will address climate change". Since the term is multifaceted, this definition does not constitute an all-encompassing understanding of climate finance.

However, it touches upon what could comprise climate finance.

Climate finance is embedded in the principle of 'common but differential responsibility'(CBDR)

in international climate change policy. Through the years, the CBDR principle has taken on different meanings, but at its very core, it establishes that although all countries have a shared responsibility towards climate change. Yet these responsibilities differ due to the nature and magnitude of the harm caused by industrialised countries in their development process over the years. To formalise the adoption of this principle, it has been enshrined in the legal framework of the UNFCCC and recognised in international agreements such as the Kyoto Protocol and the Paris Agreement. In 2009 at the 15th Conference of Parties (COP15), industrialised countries pledged US\$100 billion per year by 2020 to the Least Developed Countries (LDCs) and developing countries (EY, 2022). Considering the slow movement towards meeting the goal, the timeline for mobilising climate finance as promised by the developed countries was further extended to the year 2025 at COP21 (PIB, 2022a).

REVIEW OF LITERATURE:

1. **Stern (2007):** In his seminal work *The Economics of Climate Change*, Nicholas Stern discusses the economic costs of climate change and the necessary global investments to address it. Stern emphasizes the importance of financial flows to low-income countries for both mitigation and adaptation, outlining that the required financial commitments exceed the capacity of individual countries, thus necessitating international cooperation and robust financial frameworks.
2. **Boyd et al. (2009):** This paper, *The Role of Carbon Finance in the Clean Development Mechanism (CDM)*, delves into the role of carbon markets and financial instruments such as carbon credits in climate finance. Boyd et al. discuss the challenges of aligning financial incentives with sustainable development goals and the need for a regulatory framework that ensures both environmental and economic benefits.
3. **Buchner et al. (2011):** In their report, *The Landscape of Climate Finance*, published by the Climate Policy Initiative (CPI), the authors provide a comprehensive analysis of the global climate finance landscape. The study identifies key public and private financial flows and their respective roles in supporting global climate goals. They argue for the need to increase private sector involvement, as public finance alone is insufficient to meet the funding gap.
4. **Anderson and Tushman (2013):** In their paper on the evolution of climate finance institutions, Anderson and Tushman explore the roles of multilateral organizations such as the World Bank and the Green Climate Fund (GCF). They stress the importance of governance structures and transparency to ensure effective distribution and use of funds for climate adaptation and mitigation projects.
5. **Klein et al. (2005):** In their influential paper *The Challenge of Climate Finance*, the authors identify key challenges such as the misalignment of climate finance with development priorities, inefficiencies in fund allocation, and a lack of capacity in recipient countries. Klein et al. advocate for a better understanding of how to leverage both public and private capital to overcome these challenges.
6. **Parker et al. (2015):** This study, *Financing the Future: Moving the Needle on Climate Finance*, critiques the challenges facing climate finance, specifically the difficulty in measuring and tracking financial flows. Parker et al. propose better monitoring mechanisms and accountability measures to track how funds are being utilized effectively for climate projects, especially in vulnerable regions.
7. **Schneider and Brandt (2010):** In their paper, *The Role of Private Sector in Financing Climate Change Mitigation in Developing Countries*, the authors explore how private

sector investments, through mechanisms like carbon trading, can play a key role in bridging the financing gap for climate change mitigation. Schneider and Brandi suggest that regulatory certainty and market-based incentives are necessary to attract private investments into climate-related projects.

8. **Karp and Maffei (2018):** In their analysis, Private Sector Participation in Climate Finance: Challenges and Opportunities, the authors argue that despite the potential of private investment, there are significant barriers such as high risks, short-term investment horizons, and the need for innovative financial instruments. They suggest solutions such as blended finance models and risk-sharing mechanisms to encourage private sector involvement in climate finance.
9. **Pattberg et al. (2012):** In their research on blended finance, Innovations in Climate Finance: Blending Public and Private Resources, Pattberg et al. explore how blending public funds with private sector investments can effectively scale up financing for climate projects in developing countries. They argue that innovative blended finance models can reduce risks for private investors and improve the financial viability of climate initiatives.
10. **Rajamani (2018):** In her book Climate Finance and Global Justice, Rajamani explores the complex relationship between climate finance and global justice. She discusses how climate finance must address both historical emissions and the capacity of developing countries to deal with climate change. Rajamani argues that the distribution of climate finance should align with both climate goals and development priorities, ensuring that vulnerable nations receive adequate support.
11. **Caldecott et al. (2021)** discuss the concept of stranded assets in the context of climate

change, defined as “assets that have suffered from unanticipated or premature writedowns, devaluations, or conversion to liabilities”. They discuss the transmission channels of climate related risks and the possible effects on societies, economies, and the financial system. They also review the growing central banks and supervisors’ responses, including climate disclosure and stress testing.

12. **Jung and Engle et al. (2021):** develop a climate stress testing methodology to assess the resilience of the financial system. They estimate the exposure of financial institutions (beta) to a stranded asset portfolio and calculate an expected capital shortfall conditional to a stressed climate scenario (provided by the Network for Greening the Financial System). They find that some banks might be particularly exposed to these risks and argue that climate change might be a systemic risk for the financial system

What counts as climate finance?

‘Climate finance’ is a multifaceted concept. It generally refers to finance for activities aiming to mitigate or adapt to the impacts of climate change. However, it is sometimes conflated with the related and overlapping concepts of green finance, sustainable finance, and lowcarbon finance. Although there is no single definition of climate finance, the United Nations Framework Convention on Climate Change (**UNFCCC**) **Standing Committee on Finance** provides the closest thing to an official version:

“Climate finance aims at reducing emissions and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts.”

This definition of climate finance represents the flow of funds to all activities, programmes or projects intended to help address climate

change: for both mitigation and adaptation, in all economic sectors, anywhere in the world.

Importantly, this definition only includes finance flowing directly to assets and activities and leaves out financial market activity, such as bank loans to companies or investments in private and public equity. This is to adhere to the core principle of avoiding ‘double counting’. (For example, counting both a loan from a bank to an energy utility as well as the investments in renewable energy generation made by the recipient company, using the proceeds from the loan, would mean counting finance for the same activity twice.)

The term ‘climate finance’ is also frequently associated with international diplomacy on climate change. In this context, climate finance implies “**new and additional financial resources**” provided by developed countries to developing countries so that they can meet the full and incremental costs of climate change and decarbonisation. Following countries’ initial commitment in 2009, the obligation to provide financial support was enshrined in Article 9 of the Paris Agreement.

In 2022, ahead of the COP27 UN climate conference, the Standing Committee on Finance reviewed definitions relating to climate finance. However, differences between developed and developing countries on this issue held back an agreement being reached on documentation and methodologies for the collective financial goal.

A related and much broader concept is ‘consistency’ or ‘alignment’ of financial flows with global climate goals. The Paris Agreement’s Article 2.1c requires Parties to the UNFCCC to “make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”. ‘Consistency’ is not clearly defined under the UNFCCC, but ‘financial flows’ in this context are generally understood to include finance for real activities on the ground and activity in financial markets – prompting a wide range of initiatives, both public and private, in the financial sector.

KEY MECHANISM FOR CLIMATE FINANCE

1. **Green Climate Fund (GCF)**: The Green Climate Fund is one of the largest international funds dedicated to climate finance. It was established under the UNFCCC to support projects that *help developing countries mitigate and adapt to climate change*. The GCF provides grants and concessional loans to finance climate projects, aiming to mobilise additional funding from the private sector.
2. **Clean Development Mechanism (CDM)**: Established under the Kyoto Protocol, the Clean Development Mechanism enables *developed countries to invest in emission reduction projects in developing nations and gain carbon credits in return*. These credits can be used to meet their own emission reduction targets. The CDM encourages investment in sustainable development and provides financial resources for climate action in developing countries.
3. **Carbon Markets (CM)**: Carbon markets, such as the European Union Emissions Trading System (EU ETS), enable the trading of carbon credits. Companies and countries can buy and sell these credits to meet their emission reduction targets. Carbon markets create a financial incentive for reducing emissions and investing in clean technologies.
4. **Global Environment Facility (GEF)** was established by UNFCCC to operate the financial mechanism under the Convention on an on-going basis, subject to review every four years to provide funds to developing countries.
5. **Special Climate Change Fund (SCCF)** was created in 2001 to complement other funding mechanisms to finance projects relating to: (a) capacity-building; (b) adaptation; (c) Technology Transfer; (d) Climate change mitigation and economic

diversification for countries highly dependent on income from fossil

Financing in the Netherlands, and the Energy for Rural Transformation in Uganda.

6. **Least Developed Countries Fund (LDCF)** is intended to support a special work programme to assist the LDCs.
7. **Clean Development Mechanism (CDM)** allows a developed country with an emission limitation commitment under the Kyoto Protocol to implement an emission-reduction project in developing countries. Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO₂, which can be counted towards meeting Kyoto targets.
8. **Adaptation Fund** became operational with the first commitment period of the Kyoto Protocol in 2008 to finance practical adaptation projects and programmes in developing countries and support capacity-building activities.
9. **Climate Investment Fund (CIF)** was established in 2008 by several multilateral development banks. The CIF has balanced and equitable governance with equal representation from developed and developing countries. It includes: (a) Clean Technology Fund: Finances transfer of low carbon technologies; (b) Strategic Climate Fund: Targeted programs to pilot new approaches and improvements.
10. Community Development Carbon Fund provides carbon reduction financing to small scale projects in the poorer rural areas of the developing world. The Fund is a public/private initiative designed in cooperation with the International Emissions Trading Association and the UNFCCC. It became operational in March 2003.
11. The **World Bank and the International Finance Corporation** have also developed carbon funds with (co-)funding by States. A number of nationally-based financing instruments also exist, including: the Carbon Trust in United Kingdom, the Green

BACKGROUND:

In 1992, countries joined an international treaty, the United Nations Framework Convention on Climate Change, as a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change, and coping with impacts that were, by then, inevitable.

By 1995, countries launched negotiations to strengthen the global response to climate change, and, two years later, adopted the Kyoto Protocol. The Kyoto Protocol legally binds developed country Parties to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on 1 January 2013 and will end in 2020. *There are now 197 Parties to the Convention and 192 Parties to the Kyoto Protocol.*

The 2015 Paris Agreement, adopted in Paris on 12 December 2015, marks the latest step in the evolution of the UN climate change regime and builds on the work undertaken under the Convention. The Paris Agreement charts a new course in the global effort to combat climate change. The Paris Agreement seeks to accelerate and intensify the actions and investment needed for a sustainable low carbon future. Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change.

The UNFCCC secretariat supports all institutions involved in the international climate change negotiations, particularly the Conference of the Parties (COP), the Conference of the Parties serving as the meeting of the Parties (CMP), the

subsidiary bodies (which advise the COP/CMP), and the COP/CMP Bureau (which deals mainly with procedural and organizational issues arising from the COP/CMP and also has technical functions). For a brief depiction of how these various bodies are related to one another, please see Bodies.

OBJECTIVES:

1. To evaluate the Reducing Greenhouse Gas Emissions
2. To examine the Building Climate Resilience
3. To the Encouraging Sustainable Development
4. To explain the Closing Climate Finance Gap
5. To identify the capital flows from both private and public.

RESEARCH METHODOLOGY:

This research is based on doctrinal research methodology involve analysing and interpreting the text which are already in existence. The data collected for this research is mostly secondary sources and sources are journals, newspapers, articles, case analysis. This includes both quantitative and qualitative research process.

SIGNIFICANCE OF THE STUDY:

The followings are some of the importance about the study,

- 1) By this study, it helps to provide knowledge on the climate finance which the international relations will be at ease to access.
- 2) By Speeding up the Shift Towards a Low-Carbon Economy
- 3) This study will highlight the Managing Risks and Vulnerabilities Associated with Climate Challenges
- 4) This study will comprehend the class of Promoting Green Growth and Innovation 5) This research will provide grip to Meeting International Promises.

CORE FINDINGS OF THE STUDY:

1. climate finance sources;

There are a wide variety of climate finance sources, with different financiers having different focuses, objectives, criteria, and processes. These sources offer a range of flexible financial instruments, enabling them to respond to specific investment contexts and market barriers. These sources often have the ability to partner with the business world to mobilise institutional investors at scale to fund climate action, and to encourage the development of the local private sector in emerging markets and developing economies to deliver climate solutions. As climate change impacts continue to create greater challenges and threats, more stakeholders are mobilizing to invest in and contribute to the various dedicated climate funds, carbon funds, financing channels, and other funding mechanisms that are available to support actions to mitigate and efforts to adapt to climate change. Different climate financiers, mechanisms and funds have specific operational modalities and differing requirements, which should be assessed prior to determining whether to seek climate finance. Access, eligibility criteria, and monitoring, reporting and evaluation frameworks currently differ considerably across the myriad climate finance sources.

The likelihood of accessing any specific climate finance source will vary and depend on the specific aspects of the asset recycling transaction (such as sector, project size, availability of co-financing, and risks), as well as the desired financial instrument. Some of the key, earlystage criteria for assessing the likelihood of accessing climate finance are set forth in the section "**Transaction characteristics and amount: financing needs**". Different climate finance sources have diverse focuses and criteria that bear on the kinds of project activities they will finance. A few of the more common characteristics to consider include:

- Thematic area focus: Some financiers may support only mitigation actions or only adaptation efforts, though most of the largest sources finance both.
- Results area focus: Some financiers lend only to specific sectoral activities, for example energy generation and access (renewable energy and energy efficiency), transport, forest and land use, agriculture, health, food and water security, or for activities that engender specific outcomes, for example ecosystem services, biodiversity, land degradation, and disaster risk reduction.
- Geographic focus: This includes, for example, dedicated funds that invest only in specific countries and/or regions, or to specific groups of countries (for example, Small Island Developing States or Least Developed Countries).
- Borrower focus: Some sources only lend to public sector actors, some only private, and some preference public-private partnership (PPP) projects.
- Direct lenders versus intermediaries: Some sources lend and accept proposals at the project level (i.e., direct access), while others invest through public or private funds or bodies (at the national level or via DFIs) that in turn invest in projects and programs (i.e., intermediaries).
- Types of support: Some financiers may support project or program preparation or delivery, while others focus on technical assistance and capacity building to improve the overall enabling environment for accessing climate finance.

Public sources:

public sources have been the main source of capital available for climate finance, including financial resources from multilateral and bilateral DFIs, other types of multilateral and bilateral organizations and aid agencies, governments, and dedicated climate funds.

Bilateral sources and channels: Bilateral financial institutions (BFIs) are institutions, agencies, or funds primarily belonging to or governed by individual countries. This includes bilateral DFIs and development cooperation agencies of individual countries. These institutions are capitalized through the public budget of the donor country, supplemented by own-source funds and funds raised on global capital markets. Examples of bilateral channels for climate finance include Germany's International Climate Initiative (IKI), the United Kingdom's International Climate Finance (ICF) commitment, Germany's Global Climate

Partnership Fund (GCPF), and Norway's International Climate and Forest Initiative (NICFI), among many others.

Multilateral sources and channels: Multilateral financial institutions and funds have several governing members, including both borrowing developing countries and developed donor countries. This includes multilateral development banks (MDBs), which may be global (for example, the World Bank Group) or regional (for example, the Inter-American Development

Bank, the Development Bank of Latin America, and the Asian Infrastructure Investment Bank) in focus, as well as other regional institutions and United Nations (UN) agencies. Funds for these multilateral institutions are raised from a variety of sources and donors, including capitalization from member governments, fees for services, and income from different financial instruments such as concessional and non-concessional loans, among others.

Climate Funds: Sometimes referred to as carbon funds, these are dedicated, climate-specific funds, often multi-donor, set up and managed by national, bilateral, and multilateral organizations that usually provide trustee and administrative services. These funds may have a specific thematic focus, such as climate change mitigation and adaptation, and specific sectoral focuses, such as transport, energy, forestry, or land use, among others. In addition

to money pledged from donors, many of these funds leverage significant sums of finance, frequently from DFIs and by de-risking investments to mobilize additional private finance.

Examples of climate funds include: (i) Global donor funds established by UN agencies, such as the Global Environment Fund (GEF), the Climate Investment Funds (CIF), and the Green Climate Fund (GCF); (ii) other global donor funds, such as the Global Energy Efficiency and Renewable Energy Fund (GEEREF); and (iii) regional and national climate funds and channels, such as those established by several developing countries, with a variety of forms and functions, resourced through international finance and/or domestic budget allocations as well as the domestic private sector. The Indonesian Climate Change Trust Fund was one of the first of these institutions to be established.

Private sources:

the primary motive of private climate investors is to realize a risk-adjusted rate of return on their investment, as well as co-benefits such as sustainable development, gender-related, or social outcomes, which may be explicitly or implicitly included in their mandate as related filters for investment decisions. Nonetheless, private sources vary in their risk appetites and objectives. Some of the general categories of private finance sources are summarized, as follows.

Traditional commercial investors: These types of traditional financiers make investments primarily to generate financial returns and, as noted above, comprise the largest share of private sector climate finance. This category includes private equity firms, commercial banks, bond issuances, and other common and established sources of commercial finance. As compared to other categories of private investors, discussed below, these investors generally target more proven, less risky projects that promise a commercially viable rate of return, meaning financing is priced on market terms. Large-scale infrastructure projects

usually require special purpose vehicles (SPVs) to attract project finance through project loans, private equity, or project bonds. Large commercial banks and infrastructure funds (often capitalised by institutional investors) are among the main actors that provide private sector financing for infrastructure.

Angel investors/venture capitalists: Private investors that target earlier stage, higher risk projects with a relatively high rate of failure. Due to the high expectation of failure, however, these investors expect a correspondingly high return on investment for those projects that succeed.

Impact investors: Impact investing is an approach to investing that aims to generate both financial returns and achieve positive environmental and/or social impacts. Impact investors play an important role because they inhabit a unique space between private investors, which tend to expect a relatively high risk-adjusted return, and public and philanthropic investors, which can absorb more risk and expect less return. While impact investors need some return on investment to maintain financial sustainability, their return expectations may be more flexible, especially if they are seeing significant environmental and/or social impacts from their investments.

Philanthropic investors: Donor-based organizations that are motivated to make investments predominantly to generate positive social and/or environmental impacts and by achieving maximum impact in terms of climate-related outcomes, with relatively less or no financial return on invested funds.

2. climate finance instruments;

Climate finance is, first and foremost, finance, so the available instruments are the typical financial instruments that may be used for any type of financial transaction. In other words, what makes an investment climate aligned is not the nature of the instrument used, but the fact that the investment supports interventions

that contribute to climate change mitigation action and adaptation efforts.

Accordingly, the four (4) main categories of financial instruments to be utilized by an asset recycling transaction for climate finance are the typical financial instruments available for any type of financial transaction, namely:

- a. debt instruments;
- b. equity instruments;
- c. credit enhancement instruments; and,
- d. risk transfer instruments.(concessional bonds)

The difference between a typical financial instrument and a climate finance instrument is that funds raised under climate finance sources are ring-fenced for the purpose of achieving the specific climate-related objective, project, or physical asset. climatic finance instruments;

The appropriate financial instrument(s) selected by the borrower will depend on the project's specific attributes, such as type of infrastructure, sector, scale, financing and co-financing

needs, mitigation and/or adaptation objectives, as well as the borrower's characteristics, investor appetite for risks and returns, and the type of sources of financing available. Depending on the selected climate finance source (public or private) and financial instrument(s), the financier's key criteria will be different, with specific requirements to be followed by the climate finance proponent.

While the types of instruments available are those typical of any project finance transaction, climate finance instruments can further be categorised by the results the funds are lent against. Specifically, some climate finance is based on the greenness of the investment to be financed, i.e., the focus is on the proceeds are used. Other climate finance is linked to predefined, improved climate results that must be achieved by the borrower – either the interest rate goes down if the borrower meets

the climate target, or the interest rate goes up if it does not.

3. Climate finance challenges:

Funding Biases: Despite the existence of various financing sources, there has been an inherent funding bias (more than 80%) in favour of climate-change mitigation activities. Adaptation measures remain under-funded. This can be attributed to: (a) Results from mitigation investment are perceptible in the short run, g. returns on investments in energy efficiency or in renewable energy can be perceived through the financial cost savings, as well as from the estimable break-even periods. The same is not true for adaptation projects. For instance, returns on investment in cyclone-resistant structures might not be perceptible if cyclones do not occur; (b) Adaptation projects find less traction amongst funding agencies because of the “public goods” nature of such projects. The private sector does not consider financing “public goods” as viable investments.

Missed Target. According to an expert report prepared at the request of the UN SecretaryGeneral, the US\$ 100 billion target is not being met (available data for 2018 is US\$ 79 billion), even though climate finance is on an “upward” trajectory. Moreover, the annual

US\$ 100 billion commitment, “is a floor and not a ceiling” for climate finance, according to the UN.

Gap in Finance, Low Target: The UN Environment Programme (UNEP) estimates that adaptation costs alone faced by developing countries will be in a range of US\$ 140-300 billion per year by 2030, and US\$ 280-500 billion annually by 2050. IPCC estimates that US\$ 1.6–3.8 trillion is required annually to avoid warming exceeding 1.5°C. In this context, the target of US\$ 100 billion per year is very low.

Pandemic and its economic effects: The Climate Policy Initiative (CPI), a non-profit research group based in San Francisco, California, warns that the pandemic and its economic effects have put an emphasis on spending in areas such as public health

(developed nations spent trillions to deal with the COVID-19 pandemic), making the mid-to-long-term prospects of climate finance uncertain.

Private adaptation financing. is woefully underprovided because it deals with avoiding losses rather than delivering returns. A solar park can be set up to provide a reasonably predictable return for an investor. How do I sell my adaptation technology which hinges on avoiding something that may be years away? The adaptation finance gap ranges between USD 187–359 billion per year.

4. Climate finance at present cop29:

At last year's UN climate summit (COP29), wealthy nations agreed for the first time in 15 years to increase the amount of money they provide for climate mitigation and adaptation in developing nations. The new target – \$300 billion annually by 2035 – is better than the previous goal of \$100 billion a year by 2020. But it's still a far cry from what's needed.

That's why leaders from all nations also agreed that all actors should work together to mobilize \$1.3 trillion per year by 2035 for the countries most vulnerable to the impacts of climate change.

This \$1.3 trillion recognizes the gap between what developing nations can realistically provide domestically for things like clean energy development and climate-smart agriculture, and what will be needed from external sources. It will be extremely difficult to secure the \$1.3 trillion. But make no mistake: We must do it.

1) What's the Money For?

In short, the \$1.3 trillion must support two goals: building resilience in developing nations while also securing their low-carbon growth.

The effects of climate change are growing ever-more costly and dangerous, but the risks aren't evenly distributed. Vulnerable nations – those with the fewest resources to respond – are

projected to face more than half a trillion dollars in climate-related damages every year by

2030. Meanwhile, finance for building resilience remains paltry, with a \$360 billion gap between what's needed and what's provided every year. Of the adaptation finance that is flowing, less than one-fifth reaches the communities who need it most. whether the world is achieving these twin goals for climate finance:

- Will negotiators at the next UN climate summit (COP30) commit to at least doubling adaptation finance from \$40 billion to \$80 billion per year?
- Will the Loss and Damage Fund established in 2023 start disbursing funds?
- As part of the global Paris Agreement on climate change, countries agreed to submit new national climate plans in 2025. Will they be ambitious on both mitigation and adaptation, and come with clear investment plans?

2) How to Mobilize Private Capital?

Even if experts agree that half of the \$1.3 trillion needs to come from private capital, it will be difficult to make this amount flow to the right places. Low-carbon investments in developing nations are still considered to be risky and expensive. For example, a solar project in Germany would require 8% in equity returns; the same project in Zambia would require

51%. While institutions like the World Bank use financial instruments like guarantees to “derisk” these investments, they simply cannot be deployed to upwards of \$700 billion in private climate finance per year by 2035.

3) What Will Fund Nature's Future?

We can't fight climate change without safeguarding nature. Trees, healthy soils and the ocean sequester vast amounts of carbon dioxide. Healthy forests regulate rainfall, reduce erosion, provide clean water and support many other ecosystem services. Some estimate that a whopping 55% of global GDP depends on nature. And yet economic incentives continue

to drive ecosystem destruction. According to WRI's Global Forest Watch initiative, the world loses 10 football fields of tropical primary rainforest every minute.

This is where the financial innovation mentioned earlier can play a role.

Yes, economies currently value nature's destruction more than its preservation. But creative finance can change that. For example, the proposed Tropical Forest Forever Facility, or TFFF, would pay countries \$4 for every hectare of forest conserved while taxing them \$400 for every hectare destroyed. Conceived of by the Brazilian government and World Bank, the initiative would use an initial \$25 billion from wealthy nations and philanthropies to attract an additional \$100 billion in private finance. All investors would see a return after 20 years that's slightly higher than a government bond. And that's just one example. Innovations like land banks, debt-for-nature swaps, carbon markets – all paired with better policies, standards and regulation – can bring much-needed finance toward nature conservation that's good for people and the climate.

4) Areas of progress to watch for this year include:

- Will the TFFF initiative move from idea to reality?
- Will national leaders return to the UN biodiversity conference in February and hammer out a global nature finance deal?
- Will new integrity standards and increasing government support boost investor confidence in high-quality carbon markets?
- Will debt-for-nature swaps, where wealthy nations and institutions forgive nations' debt in exchange for conservation, become more common? Ecuador is currently using onesuch measure to protect Galapagos National Park, promising to spend \$17 million in conservation over the next 18 years in exchange for debt forgiveness.

- Will more governments redirect harmful agricultural subsidies toward nature-friendly practices, as Denmark and the UK have recently done?

CONCLUSION:

Climate Finance so far has remained an unfulfilled promise. As Al Gore emphasised, it is time to realize that the window to act to address climate change is getting shortened and developed countries are "not doing enough". Climate Finance is the most potent tool to mitigate and adapt to effects of climate change. The faster the consensus on climate finance is reached, the better. In this context, all levers, public and private should be mobilized to meet the enhanced financing target. Climate finance plays a crucial role in supporting global efforts to mitigate and adapt to climate change. The mobilization of climate finance can help bridge the gap between current emissions reduction efforts and the goals outlined in the Paris Agreement. To achieve this, a diversified range of funding sources, including public, private and alternative sources is necessary. Additionally, climate finance must prioritize climate resilience and adaptation efforts, particularly in vulnerable developing countries, by scaling up climate finance and promoting sustainable development, we can support the transition to a low-carbon economy and promote a more sustainable future for all.

The recent COP29 summit highlighted the urgent need for increased climate finance mobilization to support the implementation of Nationally Determined Contributions (NDCs) and the transition to a low-carbon economy. The summit emphasized the importance of scaling up climate finance to \$100 billion annually by 2025, as agreed upon in the Paris Agreement. Furthermore, the COP29 outcome document emphasized the need for climate finance to be aligned with the goals of the Paris Agreement, including the goal of limiting global warming to 1.5°C above pre-industrial levels. The document also highlighted the importance of

transparency, accountability, and inclusivity in climate finance mobilization and deployment.

REFERENCE:

1. <https://ppp.worldbank.org/public-private-partnership/applicable-all-sectors/financinginstruments-climate-finance-asset-recycling>
2. https://forumias.com/blog/climate-finance-meaning-need-andchallenges/#What_is_the_need_for_Climate_Finance
3. <https://ppp.worldbank.org/public-private-partnership/applicable-all-sectors/sourcesclimate-finance-asset-recycling>
4. <https://www.wri.org-cop25>
5. <https://unfccc.int-climate> finance
6. <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-finance-and-where-will-it-come-from/-> background.

