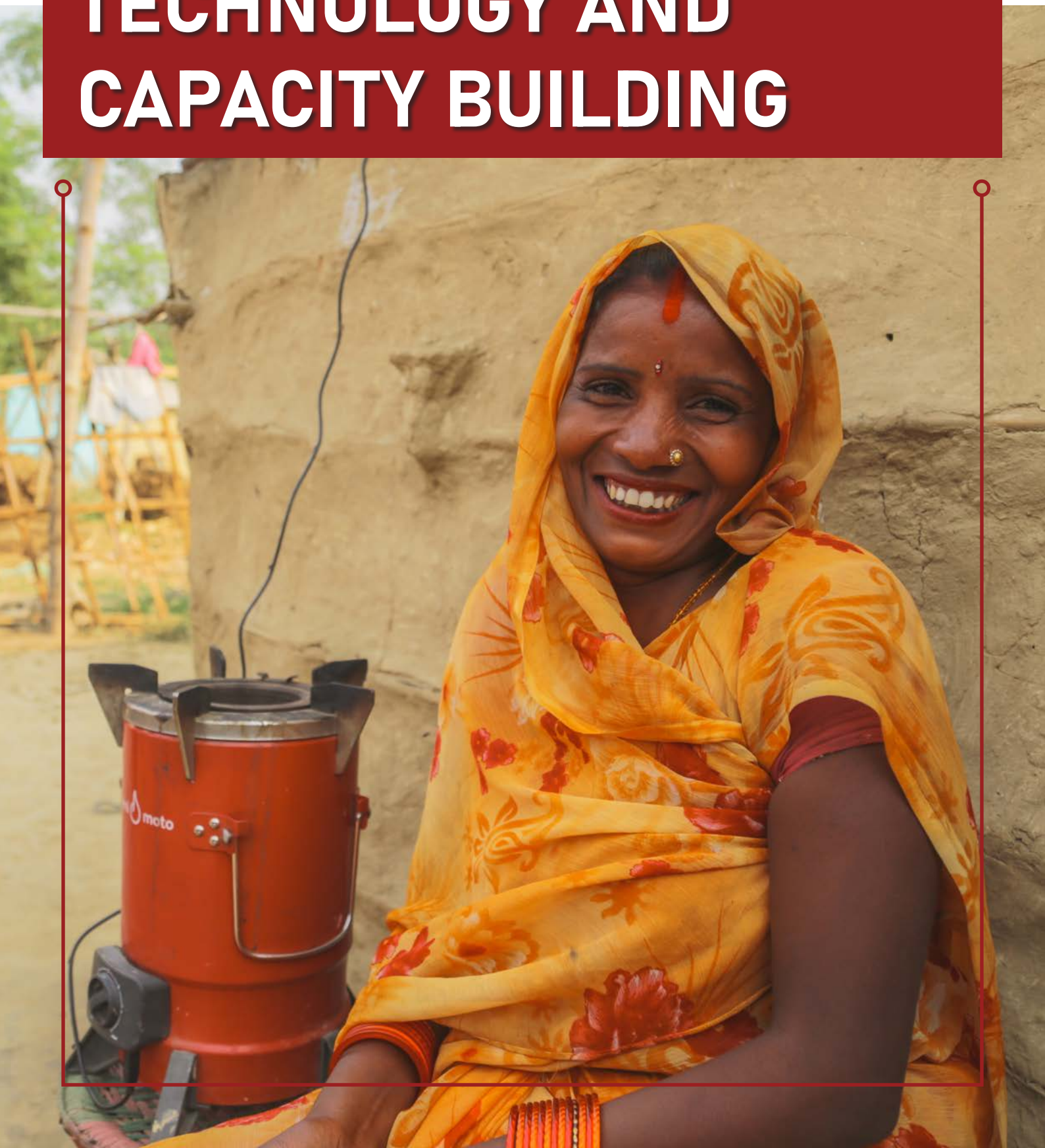
C.I.F CLIMATE CLUB

CARBON INITIATIVE FORUM

C6: FINANCIAL SUPPORT, TECHNOLOGY AND CAPACITY BUILDING



Carbon Initiative Forum is non-profit that aims to empower the youth through the mainstreaming of climate policy in education. *We see a void in the public space on policy discussions about the climate. There hasn't been enough awareness, conversation and therefore expectation from the public towards policy makers and corporations is lacking. We want to make climate a voting issue in India and create a space, through CIF, for dialogue, discussion and chiefly an impetus from youth and other individuals to drive actions at various governance levels.*

We are a comprehensive platform to ask the right questions to the right people and gain clarity and our target audience includes youth of age group 14-28 years.

OUR MISSION IS TO EDUCATE & ENGAGE ON CLIMATE POLICY

> Our planet needs each one of us right now. We need you to inspire change to control climate change.

> On our platform, understand what the policy makers are doing to limit global warming, engage with us and enhance awareness on it.

> We enable the youth to become better future climate decision makers by educating them on climate change and climate policy.

OUR OBJECTIVES

- Create city level chapters that work on city level issues
- Our vision is to become a national platform, growing and collated by the people
- Enable a larger movement and consequently a larger impact towards climate action

VOLUNTEER LIKE A PLANETEER!

Whether you're a lifelong environmentalist, a new activist just starting out, or someone totally new to the concept of climate change, join our **#CIFClimateClub** or **#LocalCityChapter** and be the planeteers our planet needs.

LEAD THE WAY. INSPIRE THE YOUTH. CLIMATE POLICY NEEDS YOU.

CARBON INITIATIVE FORUM

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Economic impacts of climate change

Climate change imposes far-reaching and irrefutable impacts on the global economy. Risks emanating from climate change fall into two prime buckets, namely, physical and transition risks.

Physical risks result in, inter alia, property loss, supply chain disruption or productivity loss. They are further categorized as acute and chronic risks. Acute physical risks are those associated with extreme weather-related events such as wildfires, droughts, floods, heatwaves, etc. The frequency and severity of these events have become increasingly erratic. Chronic physical risks, on the other hand, are linked to an overall shift in climate patterns. These include, sea-level rise, ocean acidification, etc. The second bucket, Transition risks, are essentially societal changes induced by a shift towards a low-carbon and climate-resilient pathway. These are further broken down into technology risks, market risks, reputation risks and policy and legal risks.

Taking an example, switching from fossil fuels to renewable sources of energy. This could render coal mines stranded before their anticipated date of retirement, thereby imposing financial losses upon investors.

Economic pain will grow over time

Presently, the global mean temperature has already spiked to 1.1°C. A Swiss Re Institute report published in 2021, lays out the expected impact on global GDP by 2050 under four different scenarios compared to a world without climate change. These are:

4% if Paris Agreement targets are met (a well-below 2°C increase)

11% if further mitigating actions are taken (2°C increase)

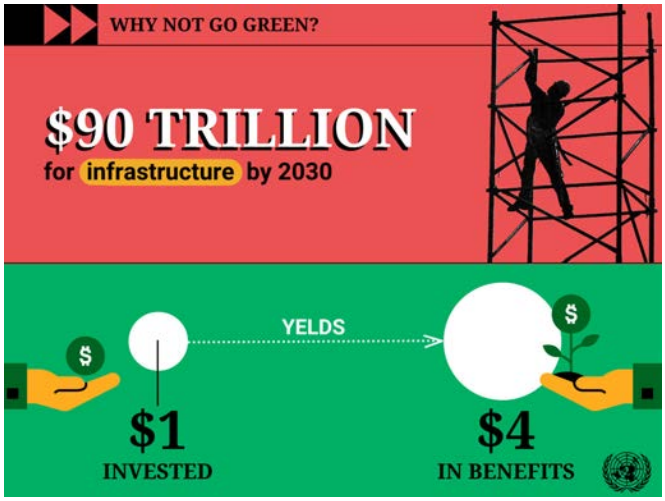
14% if some mitigating actions are taken (2.6°C increase)

18% if no mitigating actions are taken (3.2°C increase)

The impact of climate change has been forecasted to be the hardest hit for Asian economies (mainly South and Southeast Asian regions), with a 5.5% hit to GDP in the best-case scenario, and 26.5% hit in a severe scenario. The Mckinsey Global Institute, for instance, projected that in the absence of adaptability measures and severe temperature rise, about 200 million Indians could be subjected to intense heatwaves by 2030. The advanced economies in the north, on the other hand, would be less vulnerable to the exposure of climate change induced physical risks.[1]

Many emerging markets have most to gain if the world is able to rein in temperature gains. For example, action today to limit to 1.5°C would mean economies in southeast Asia could prevent around a quarter of the GDP loss by mid-century that they may otherwise suffer.

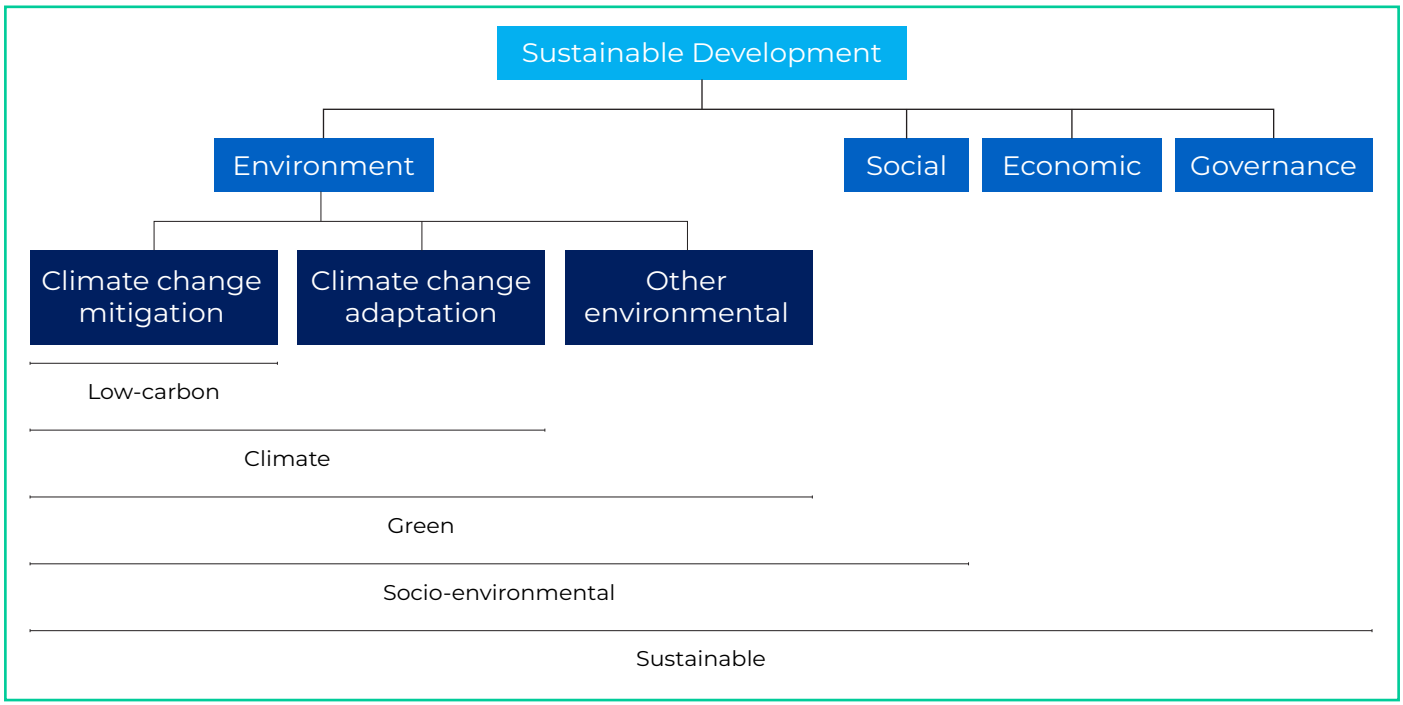
According to October 2019 data from the World Bank, the world will need to make significant investment in infrastructure over the next 15 years of around US$90 trillion by 2030. But it can recoup those investments. Transitioning to a green economy, it found, can unlock new economic opportunities and jobs. An investment of US$1, on average, yields US$4 in benefits.[2]



Demystifying climate finance

The operational definition of Climate finance is still under consideration. *The task of coming up with a common understanding of the term is bestowed upon the Standing Committee on Finance (SCF).* As defined by the UNFCCC, Climate finance refers to "local, national or transnational financing-drawn from public, private and alternative sources of financing-that seeks to support mitigation and adaptation actions that will address climate change." Often conflated with green finance, climate finance, per se, is a subset of green finance. It refers primarily to public finance, or where developed countries provide financing through a variety of sources, that promotes multilateral efforts to combat climate change. Green finance is a wider term that encompasses all financial flows that support sustainable environmental objectives.[3]

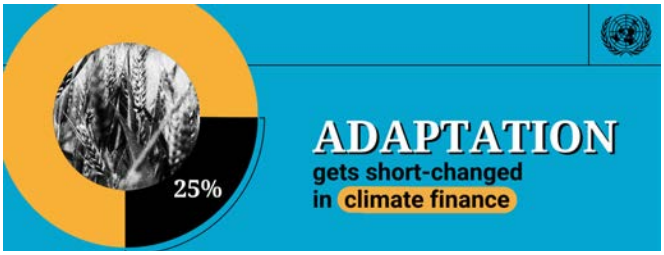
A simplified scheme for understanding broad terms on sustainable finance[4]



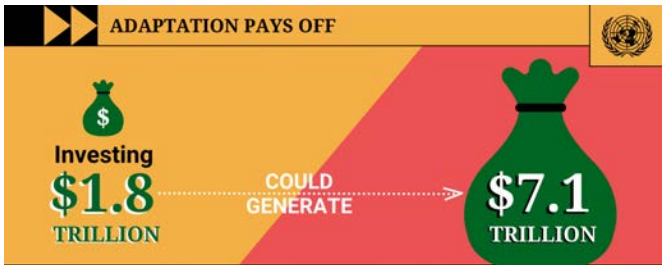
Source: Definition and concepts: Background Note, UNEP, 2016.

Climate finance is vital in supporting developing nations pursue mitigation and adaptation responses to climate change. *Article 9 of the Paris Agreement calls upon developed nations to provide financial assistance to developing nations, while considering capacity challenges and allocating differential responsibilties. It further underscores the need for promoting equally proportionate disbursal of funds towards both adaptation and mitigation actions.*[5]

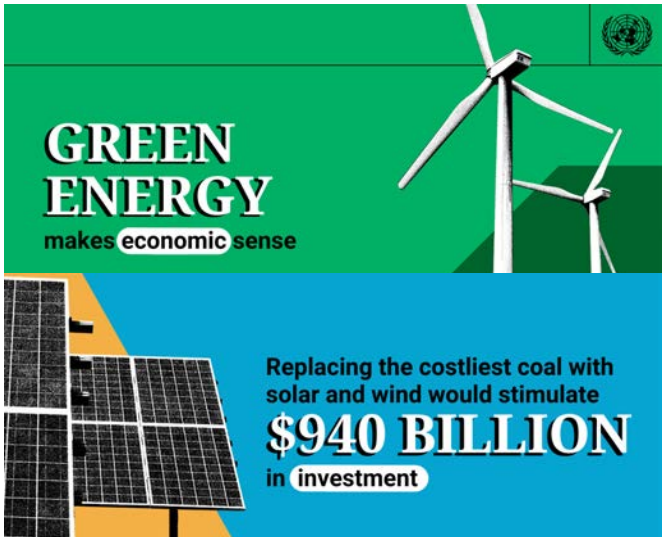
> ***Studies indicated that mitigation finance covered roughly two-thirds of the overall climate finance flows in 2019. For the same year, the Climate Policy Initiative reported that only 0.1% of private finance was channeled towards adaptation finance. According to the estimates shared by Organisation for Economic Co-operation and Development (OECD), adaptation finance constituted a mere 20.1% in contrast to mitigation finance which stood at 50.8% in 2019. Lower profitability from funding adaptation actions has deterred finance flows in this area.***[6]



Emphasizing on the need for diverting greater investments for adaptation measures, the Global Commission on Adaptation, for instance, estimated that investing US$1.8 trillion from 2020 to 2030 could generate US$7.1 trillion in total net benefits in five areas-early warning systems, climate-resilient infrastructure, improved dryland agriculture crop production, global mangrove.[3]



The Green Climate Fund has an essential mandate to maintain an even balance between mitigation and adaptation in its portfolio, and to engage the private sector through its Private Sector Facility to mobilize private finance toward low carbon and climate resilient investments. But that even balance has been difficult to achieve so far.[2]



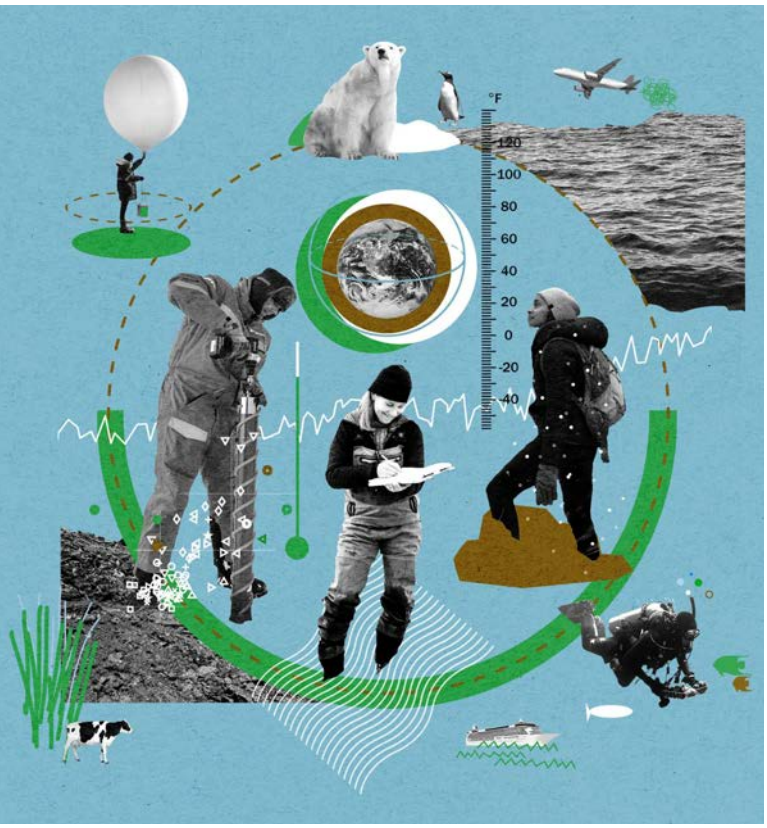
> ***The COP15 meeting held in Copenhagen, resulted in a monumental decision that was formally recognized at the following COP16 meeting. Developed nations jointly agreed to provide $100bn annually till 2020 to developing nations in enabling them to pursue cimate action.***
>
> **This was reinforced under the Paris Agreement during COP21, with a new timeline that extended from 2020 to 2025. Developed nations have yet to prove their mettle. It seems the likelihood of meeting this budget would be difficult as the nearest possible timeline for reaching the $100bn goals is projected to be 2023.**[7]

Investment decisions now will determine whether we create or destroy wealth and potential paths to prosperity. It is increasingly clear that the world cannot afford to burn all of its fossil fuel reserves if we are to succeed in limiting climate change to sustainable and livable levels. The long-term economic reality is that only a fraction of proven fossil fuel reserves can be burned if we are to keep temperature rise to 1.5°C.[2]

Key developments under UNFCCC

The United Nations Framework Convention on Climate Change (UNFCCC) and its affiliated organizations, the Kyoto Protocol and the series of COP meetings and decisions have been instrumental in underscoring and mobilizing climate finance to address climate change.

The Paris Agreement, which came to force in 2016, reinforced the obligations of developed nations while calling for 'common but differentiated responsibility and respective capabilities', in the light of different national circumstances.

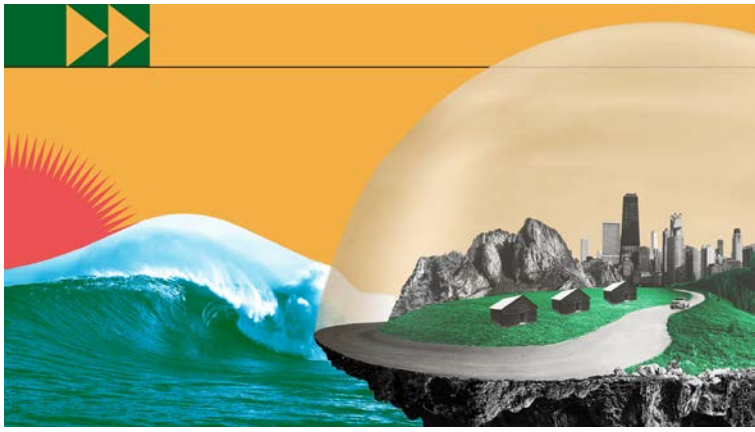


Under the UNFCCC, the Standing Committee on Finance (SCF) was announced at COP16 primarily to assist the COP in exercising its functions concerning the Financial Mechanism of the Convention. The Financial Mechanism is accountable to the COP, which decides on its climate change policies, programme priorities and eligibility criteria for funding. Apart from SCF, UNFCCC comprises of various funds, entities and bodies that look into climate finance.[3]

> ***The Green Climate Fund (GCF), for instance, is considered one of the largest funds for climate finance. It supports developing countries in designing and delivering ambitious climate action plans known as Nationally Determined Contributions (NDCs).***

An operating entity of the financial mechanism under the Convention, Green Climate Fund was operationalized at COP16. It is also mandated with ensuring an even balance between mitigation and adaptation responses and rope in private investments.[8]

> ***The Global Environment Facility (GEF), another operating entity of the financial mechanism under the Convention, inter alia, overlooks the administration of Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF).***[9]



Overview of the global climate finance architecture

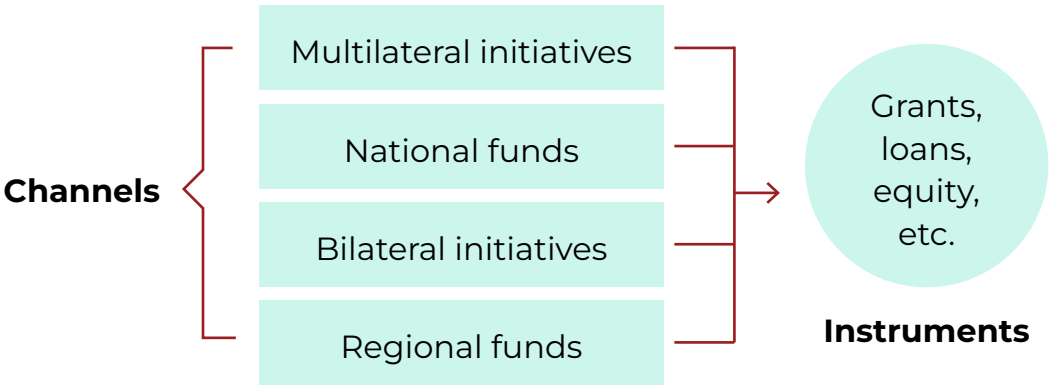
It is apparent that the collective effort of all the stakeholders involved, both private and public, is necessary to avert the looming climate crisis. The global architecture for climate finance is one that highly complex and dynamic in nature, comprising of multiple channels, funds and diverse actors.

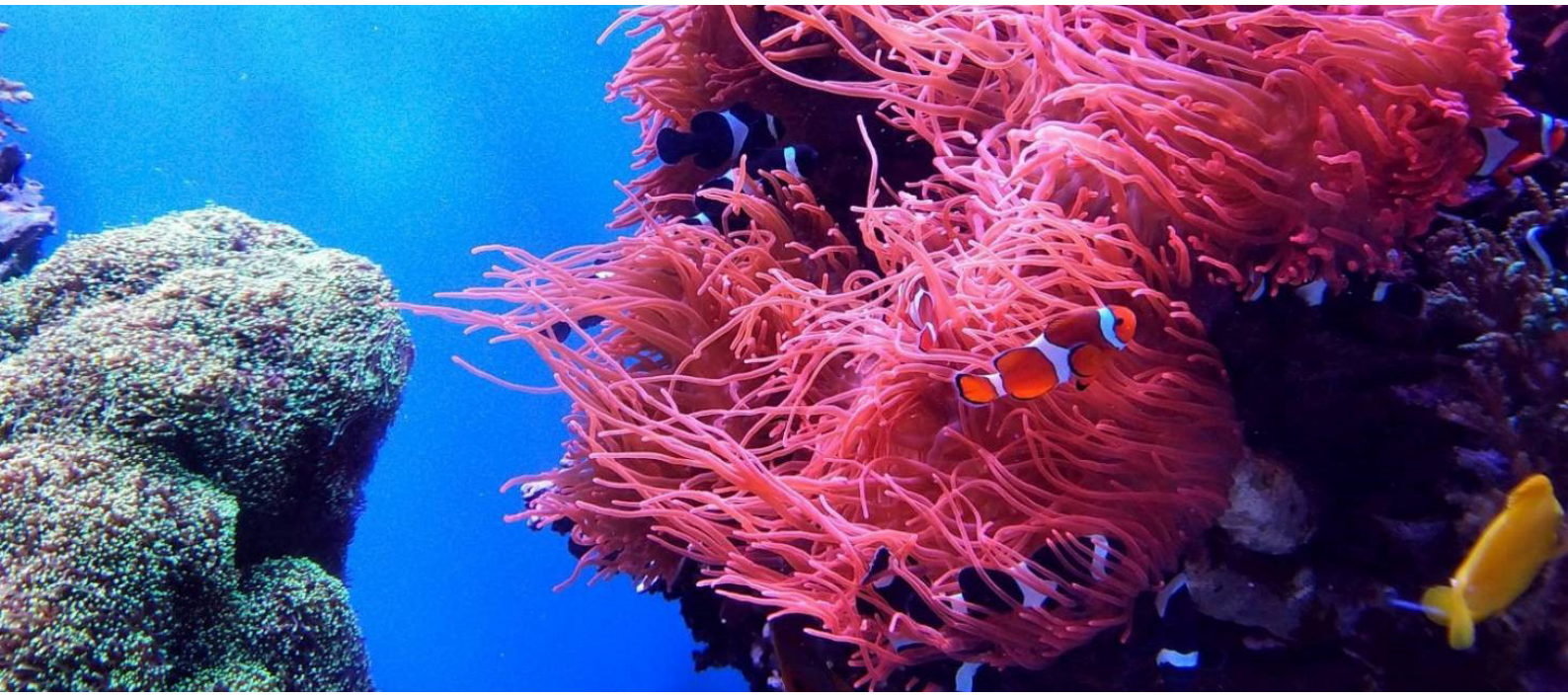
Public finance, in this space, moves at large through Development Finance Institutions (DFIs), State-owned financial institutions' and Direct finance flows (domestic and international) from governments. On the other hand, private finance is funded by corporates, commercial financial institutions and domestic expenditure. Debts, equity investments and grants are the prime instruments for climate finance.

The bouquet of options through which countries can avail climate finance has been considered both a boon and a bane. On one hand, the diversity of funds would lead to better accessibility and complementarity. While on the other, it could shroud transparency, weaken accountability and increase complexity. Tracing the global climate finance flows, Climate Policy Initiative in its assessment for the period 2019-2020, attributed 50% of the Multilateral Climate Funds (MCFs) to Green Climate Fund (GCF). Examples of MCFs include UNFCCC's funds, The World Bank's Climate Investment Funds (CIFs) and Multilateral or Regional Development Banks (MDBs).[10]

At COP26, the Standing Committee on Finance was tasked with preparing a Biennial Assessment and overview of climate finance flows, drawing on the available sources of information. The overview looked into the financial flows from diverse sources for 2017 and 2018 and also presented a comparative assessment of previous trends. The report also elucidated on the various challenges in information assimilation and analysis resulting owing to prevalent data gaps and uncertainties.[11]

The diagram below depicts the primary means of public climate finance





Climate finance negotiations at COP26

Some of the key takeaways from the COP 26 meeting, held in Glasgow in 2021, are summarized below:

At COP26, the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement deliberated on discerning a new collective quantifiable goal that would come into play for the period 2025 to 2030. The threshold for this goal is supposed to be upwards of $100 billion annually. In this regard, developing nations pushed for financial support upwards of $1.3 trillion per year. A conclusive figure on the goal, however, failed to see the light of the day. Instead, a Work Programme for 2022-24 was formed in order to lay the groundwork for the new goal.

While the new goal is thus yet to be determined, it is clear from the most recent UNEP Adaptation Gap Report that adaptation costs and needs are rising, and are five to ten times greater than current international public adaptation finance flows, leading to a widening adaptation finance gap.

Greater emphasis was directed towards bolstering adaptation finance, which in hindsight has received lesser preference in the past. In this regards, fresh commitments with net pledges exceeding $350 million and $600 million for the Adaptation Fund (totaling over) and the Least Developed Countries Fund (LDCF) respectively, were announced.

The forum also deliberated on the creation of an additional bucket of finance that would solely compensate for the loss and damages that developing nations, especially the Small Island states are exposed to. This fund would be leveraged only in cases where adaptation measures seem inadequate.

There were also deliberations regarding the necessity for coming up with a universal definition for climate finance, with developed nations strongly opposing the decision and instead opting for a more personalized definition.[12]

Transparency in climate finance disclosures

Article 13 of the Paris Agreement introduced the Enhanced Transparency Framework (ETF) to standardize the reporting and reviewing of information with regards to the progress of ratified parties under the agreement.

The purpose of Framework is to promote mutual trust and confidence among all involved parties, measure progress, promote sharing of best practices and inform the global stocktake of country-level efforts.[13]

The image below depicts the reporting and reviewing process to be followed for the ETF[13]

Aricle 13 of the Paris Agreement: Transparency of action and suppport

Reporting	**All parties *(shall)*** • National greenhouse gas (GHG) inventory report *{Article 13.79(a)}* • Progress made in implementing and achieving nationally determined contribution (NDC) *{Article 13.7(a)}*	+	**Developed country parties *(shall)* & other parties that provided support *(should)*** • Financial, technology transfer and capacity building support provided and mobilized to developing country parties under Article 9, 10 and 11 *{Article 13.9}*
	All parties *(should, as appropriate)* • Climate change imapcts and adaption *{Article 13.8}*		**Developed country parties *(should)*** • Financial, technology transfer and capacity building support needed and received under Article 9, 10 and 11 *{Article 13., 10}*
Technical expert review	**All parties *(shall)*** • Undergo technical expert review of information submitted under Article 13.7 *{Article 13.11}*	+	**Developed country parties *(shall)* & other parties that provided support *(may)*** • Undergo technical expert reveiw of information submitted under Articles 13.9 *{Article 13.11}*
Facilitative multilateral consideration of progress	**All parties *(shall)*** • Facilitative, multilateral consideration of progress with respect to efforts under Article 9, and its respective implementaion and achievement of its NDC *{Article 13.11}*		

*The transparency framework shall provide flexibility in the implementation of the provisions of this Article to those developing country PArties that need it in the light of their capacity *{Article 13.2}*

*The transparency framework shall recognize the special circumstances of the least developed cuntries and small island developing states *{Article 13.3}*

Instead of 'reinventing the wheel', the framework builds on the existing system under the Convention and the Kyoto Protocol. At COP13, the Bali Action Plan conceptualized a Measurable, Reportable and Verifiable process (MRV) which underwent a series of modifications over the course of subsequent COP deliberations. The MRV formed the basis for the ETF, which is slated to replace the former. The ETF provides built-in flexibility to those developing countries that need it owing to their national capacities. *Capacity-building and support from developed country Parties will be crucial to facilitating improvement in reporting over time. The guiding principles for the ETF are referred to as the Modalities, Procedures and Guidelines (MPGs). The MPGs were formulated at the COP24 in Katowice which, inter alia, aim to capture the flow of financial support.* At COP26, decisions pertaining to the reporting formats, outline of the biennial transparency report and the technical review report, were further ironed out.[14]

The table below displays the existing reporting and reviewing mechanism for Annex I and Annex II countries[15]

Parties	Reporting Obligation	Review Process
Annex I - Industrialized countries and economies in transition (OECD & EIT Parties)	National Communications, Biennial Report (BR), Inventory Report (CTF)	International Assessment and Review (IAR): Technical Review and Multilateral Assessment (MA)
Non-Annex II - Developing countries	National Communications, Biennial Update Report (BUR)	International Consultation and Analysis (ICA): Technical Analysis and Facilitative Sharing Views (FSV)

A special focus on prioritizing support to Least Developed Countries (LDCs) and Small Island Developing States (SIDS)

Small island developing states (SIDS) are the most economically vulnerable of all groups of developing countries, according to the Economic Vulnerability Index. They are particularly vulnerable to natural, economic and health-related shocks beyond domestic control.

In the Caribbean alone, the damage caused by climate-related and earth-related hazards is estimated at $12.6 billion per year. Before the 2000s, SIDS endured fewer than ten major natural disasters per year. Over the past two decades, 20 major natural disasters have struck SIDS each year.

Climate finance for SIDS is shockingly small

For SIDS, enhancing resilience to more frequent and intense natural disasters means mobilizing more domestic and foreign resources for adaptation and mitigation. However, the COVID-19 pandemic has deprived many SIDS of tourism revenues a crucial source of income for disaster risk reduction. In this context, climate finance is of particular interest to SIDS policymakers because of its role in funneling resources to building climate-related resilience.

At present, SIDS have little access to climate finance. Despite being hit hard by climate change while only contributing to 1% of global CO2 emissions, they only had access to $1.5 billion out of $100 billion in climate finance pledged to developing countries in 2019.

At the Fifteenth session of the United Nations Conference on Trade and Development (UNCTAD15) in October 2021, SIDS called for a change in the criteria for allocating concessionary support to their countries. They asked for more emphasis on the vulnerability criterion, instead of prosperity, as conventionally captured through per capita income.

In November 2021, Prime Ministers of Antigua and Tuvalu signed a historic accord establishing a SIDS commission, providing a mechanism for the largest climate change contributors to compensate SIDS for the climate hazards they face.

Building resilience is key to achieving economic progress

Financial solutions that blend public and private investment while expanding financial support on concessional terms are central to fostering SIDS' resilience. SIDS have deplored the absence of a SIDS-specific window under the Green Climate Fund.

Furthermore, the Finance ministers from the V20 Group of climate vulnerable and developing economies, a third of which are SIDS, have recently pushed for partnerships with the G7 and G20 in order to ensure the inclusion of vulnerable economies in their decision-making processes.

In this context, a potentially interesting example of how the Green Climate Fund could work for SIDS is that of the financial support it provided to the Development Bank of Southern Africa. Thanks to the support, the bank was able to create a climate finance facility involving a capital of $171 million for the implementation of climate adaptation projects.

Debt-for-climate swaps are another interesting climate finance vehicle for SIDS. These swaps consist of the creditor forgiving debt in return for the debtor's commitment to spend the foregone debt service payment on climate adaptation projects.

Belize, a small continental developing state, negotiated a $8.5 million debt forgiveness swap for a climate adaptation programme involving 300,000 acres of rainforest conservation and 48 grants for managing protected areas.

UNCTAD sees three crucial ways of supporting SIDS going forward[16]

1. Raising the visibility of island vulnerability issues.
2. Identifying mechanisms to boost island resilience-building efforts.
3. Providing a range of advisory services, including supporting SIDS to graduate from the least developed country category.

State of finance for nature

Nature loss is at the heart of many societal challenges. Interlinked crises like the pace of species extinction, global warming, and zoonotic diseases like Covid-19, have further reinforced the need to invest in sustainable action that enhances the resilience of ecosystems and addresses societal challenges, such as food security, climate change, water security, human health, poverty, sustainable agriculture and forestry and enhanced resilience to disaster risk. Nature-based solutions (Nbs) hold the potential to address these interlinked crises.

Our livelihoods depend on nature. Our collective failure to date to understand that nature underpins our global economic system, will increasingly lead to financial losses.

More than half of the world's total GDP is moderately or highly dependent on nature. Agriculture, food and beverages and construction are the largest sectors that are dependent on nature and these generate $8 trillion in gross value added.

The integrity of ecosystems has been significantly compromised as a result of human activity and the paradigm that has prioritized short-term economic growth. In order, to ensure that humanity does not breach the safety limits of the planetary boundaries, we need a fundamental shift in mindset, transforming our relationship with nature.

Currently, the majority of the essential benefits of nature have no financial market value, despite underpinning our current and future prosperity. From government policies related to procurement, taxation, trade and regulation, to the way businesses and financial institutions make decisions on investment, risk and disclosure, it is vital that we hardwire into our economic system the value of nature in a profound way.[17]

A Climate Economy report, issued in 2018, found that bold climate action could yield a direct economic gain of $26 trillion through to 2030 compared with business asusual a conservative estimate, it said.[2]

> ***Knowledge on capital expended and needed for nature-based solutions (NbS) remains limited.***

Despite the growing interest from governments, businesses and financial institutions, there is typically poor knowledge and understanding as to how much capital is already directed to assets and activities that can be considered NbS, how much capital ought to be directed to NbS and what are the clear investment opportunities.

The State of Finance for Nature - Tripling investments in nature-based solutions by 2030 report aims to address these critical knowledge gaps. It analyses current global investment in NbS and estimates future investment needs to meet biodiversity, climate change and land restoration ambitions, as set out in the three Rio Conventions - The Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC).

The report offers recommendations and lays out opportunities to increase investment in nature-based solutions.

The report offers recommendations and lays out opportunities to increase investment in nature-based solutions. It finds that,

Approximately USD 133 billion/year currently flows into NbS (using 2020 as base year)

- Public funds makes up 86%, which total USD 115 billion/year
  - Over a third is invested by national governments into protection of biodiversity and landscapes
  - Nearly two-thirds is spent on forest restoration, peatland restoration, regenerative agriculture, water conservation and natural pollution control systems
- Private finance makes up 14%, amounts to USD 18 billion/year
  - This spans biodiversity offsets, sustainable supply chains, private equity impact investment and smaller amounts from philanthropic and private foundations

> ***The total volume of finance flowing into nature is considerably smaller than the flow of climate finance. Looking to the future, investment in NbS ought to at least triple in real terms by 2030 and increase four-fold by 2050 if the world is to meet its climate change, biodiversity and land degradation targets.***

This acceleration would equate to cumulative total investment of up to USD 8.1 trillion, and a future annual investment rate of USD 536 billion. Forest-based solutions alone would amount to USD 203 billion/year, followed by silvopasture with USD 193 billion/year, peatland restoration USD 7 billion/year, and mangrove restoration USD 0.5 billion/year. The report does not cover all types of NbS, notably those in the marine environment were excluded. These will be included in future editions.

The compilation of data on capital investment in nature across all sectors and for all major economies has proven challenging and the estimates are highly uncertain. The report calls for agreement on a system for labelling, tracking, reporting and verifying the state of finance for NbS. This would improve data comparability and quality, as an input to future decision-making.

> **The public sector plays a fundamental role in creating opportunities and demand for investment in NbS. First, the public sector brings forward policies and regulations that create a strong and stable revenue stream for NbS activities and assets.**

Governments and public international organizations can also contribute an enabling environment for project development and for scaling up. The opportunity for NbS to become a formal cross-cutting modality of investment is clear, benefiting from a formalized strategic plan and associated resource allocation.

NbS poses an opportunity for private sector investment in pursuit of sources of revenue, to reap the benefits of increased resilience, to reduce costs and to enhance reputation and purpose. As

businesses become more sophisticated in their understanding of NBs poses an opportunity, there will be a role for financial de-risking products such as guarantees and insurance, to create attractive risk-return profiles for large, mainstream investors.

> **The case studies presented in the report illustrate the business case and the potential for tackling climate change and environmental degradation through NbS. Examples range from the Scottish Government's commitment to spend £250 million on peatland restoration over the next ten years, to the Green Climate Fund in Laos, which supported the implementing agency in the restoration of an urban wetland that was fundamental for ecosystem service provision, such as water flow regulation and flood risk reduction.**[17]

Importance of private sector finance

The climate crisis is too big, too serious and too urgent to rely on the resources of public institutions alone. *Today, the private sector manages more than USD 210 trillion in assets but only a very minor part of it is dedicated to climate investments.*

As more governments put in place targeted policies and incentives to achieve their climate change and green growth ambitions, the private sector has an unparalleled opportunity to deliver the investment needed to spur innovation and create thriving markets, spanning across clean energy, sustainable transport, green infrastructure or climate resilient agriculture.

In order, to scale up Green Climate Fund's (GCF) activities and de-risk the delivery of capital flows, GCF has set up the Private Sector Facility (PSF), a dedicated division designed to fund and mobilise private sector actors, including institutional investors, project sponsors and financial institutions.

PSF promotes private sector investment through concessional instruments, including low-interest and long-tenor project loans, lines of credit to banks and other financial institutions, equity investments and risk mitigators, such as guarantees, first-loss protection, and grant-based capacity-building programmes.

PSF structures these instruments across different practices including:[18]

Financial Institutions:
Mainstreaming climate change considerations in the financial system

Project Finance:
Tailoring life cycle concessional finance to de-risk infrastructure projects for climate

Climate Funds:
Structuring anchor investments in climate equity/debt funds

Climate Markets:
Developing Capital/Carbon markets that require bespoke structuring solutions

Climate Innovations:
Scaling investments into high-impact climate technologies and innovations

What is a Green budget

As per the OECD Green Budgeting Framework 'Green budgeting, means using the tools of Budgetary policy-making to help achieve environmental and climate goals. This includes evaluating environmental impacts of budgetary and fiscal policies and assessing their coherence towards the delivery of national and international commitments. Green budgeting can also contribute to informed, evidence-based debate and discussion on sustainable growth.

India got its first 'Green Budget' in 2019 when the Union Budget was termed as Green on account of having provisions for pollution control and green infrastructure. This, however, is not a comprehensive way of green budgeting since it has a narrow focus. However, it did lay the foundation for adoption of a green budget and for potential improvements over time.

Bihar is the first state in India to do green budgeting in a more comprehensive manner. The Energy and Resources Institute (TERI) and Asian Development Research Institute (ADRI) have helped the Government of Bihar identify Budget-heads mapping to SDGs, and developing standard operating procedures.

One of the key takeaways from the above is the need for green tagging. With growing evidence of the need to increase financing to green, identifying what is 'green' is not only important but crucial.[19]

Green finance in the Indian context

India has started emphasizing on green finance as early as 2007. In December 2007, the Reserve Bank issued a notification on "Corporate Social Responsibility, Sustainable Development and Non Financial Reporting - Role of Banks" and mentions the importance of global warming and climate change in the context of sustainable development. In 2008, National Action Plan on Climate Change (NAPCC) was formulated with a vision to outline the broad policy framework for climate change mitigation.

There have been several fiscal and financial incentives at work in India. In 2021, Indian Prime Minister announced the following new five-point set of targets at COP26 in Glasgow:

- India will increase its non-fossil fuel energy capacity to 500 gigawatt (GW) by 2030.
- It will meet 50% of its energy requirements from renewable sources by 2030.
- The total projected carbon emissions will be reduced by 1 billion tonnes from now through 2030.
- The carbon intensity of its economy will be brought down to less than 45%.
- India will achieve its target of net zero by 2070.

Policy measures by the Indian Government to promote the use of clean energy

Rooftop Solar Panels as a Subsidy:

The Government of India (GoI) offers 30% of the installation cost of the rooftop solar panels as a subsidy to the institutional, residential and social sectors in most states. In some of the special category states, the subsidy is up to 70% of the installation cost. In addition, beneficiaries can avail a generation based incentive wherein they can receive Rs. 2 per unit of generation, if the generation exceeds 1100kWh - 1500kWh per year. Further, the excess power can be sold at a tariff set by the government.

Hybrid and Electric Vehicles Scheme:

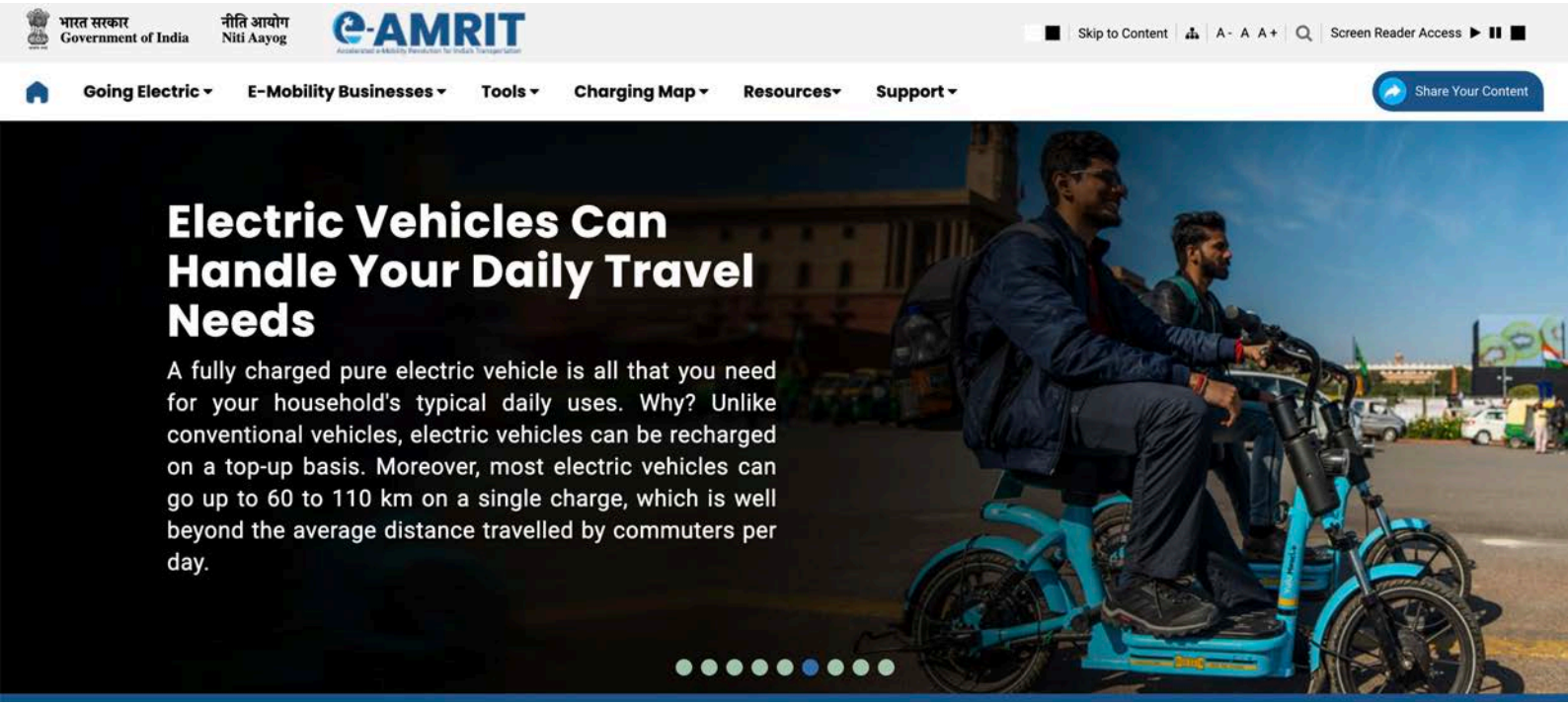
The GoI launched two phases of Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) scheme in 2015 and 2019, to enhance the flow of credit, reducing the up-front purchase price of all vehicles and developing the infrastructures (such as charging stations) to encourage green vehicle production and sales. In order, to counter the high up-front cost of such vehicles, the State Bank of India has introduced a 'green car loans' scheme for electric vehicles with 20 basis points lower interest rate and longer repayment window, compared to the existing car loans.

Renewable Energy Production Linked Incentive (PLI) Scheme:

The Government has also brought in a Production Linked Incentive (PLI) Scheme under the 'National Programme for High Efficiency Solar PV Modules'. The aim is to reduce import dependance in the area of renewable energy. The Reserve Bank has also been taking proactive policy measures to promote and support green finance initiatives. It has included the small renewable energy sector under its Priority Sector Lending (PSL) scheme in 2015. Under this scheme, firms in renewable energy sector are eligible for loans upto Rs. 30 crore (increased from Rs. 15 crore since September 4, 2020) while the households are eligible for loans upto Rs. 10 lakh for investing into renewable energy.

Green finance flows in India are falling far short of the country's current needs. In 2019-2020, tracked green finance was about $44 billion per annum, approximately a fourth of India's needs.

Since 2015, India started issuing green bonds. As of February 2020, the outstanding amount of green bonds in India was $16.3 billion. India issued green bonds of about $8 billion since January 2018, which constituted about 0.7% of all the bonds issued in the Indian financial market. *In sum, green finance in India is still at the nascent stage and bank lending to the non-conventional energy constituted about 7.9% of outstanding bank credit to the power sector, as on March 2020.*[19]



Key takeaways

- Green finance flows must increase rapidly to ensure that India meets its NDC targets.
- Public finance has played a major role in increasing green finance flows, but more involvement of the private sector is required.
- A strong policy environment is critical to enabling green finance at scale.
- Coordinated efforts across data collection, reporting, and access will increase green finance flows.
- Accelerating financial flows towards adaptation is critical.[19]

Mobilizing green finance while managing climate finance risk in India

Climate change has far-reaching impacts that are not limited to a particular sector or geography; it impacts the entire financial system. If left unchecked, this impact will be severe. The financial system plays a crucial role in every country's transition to a sustainable economy especially, in unlocking private investments needed to bridge the gap between supply and demand in green activities.

This transition towards a sustainable economy requires focusing on two primary objectives:

1. **Increasing green finance,**
2. **Managing climate-related risks that impact financial risk**

However, targeting both these objectives can create a potential dilemma.

In the current scenario, if we try to increase green finance through policy and regulation, it tends to increase overall financial risk, as green loans and assets are currently 'perceived' to be of lower credit quality. So, expanding green finance could lead to an overall higher credit risk profile-both at the individual bank/asset manager level and at the macro-prudential level.

On the other hand, if we focus on managing financial risks through climate policy and regulation, we may end up reducing green finance flows, because in the current models the 'perceived' higher risk of green loans and assets produces a higher cost of capital. Therefore, a balancing act to address this potential dilemma is crucial.

Existing policies and frameworks do not lend themselves to the balancing act mentioned above.

According to a Network for Greening the Financial System (NGFS) study, current regulatory and supervisory frameworks do not adequately factor in the climate-related risks impacting financial risk. This is compounded by the fact that current fiscal frameworks are not conducive to green activities, particularly in emerging economies, mainly because green activities are usually new and have limited track records, inconsistent information, and less proven collateral.

In addition, there is heavy reliance on the current credit rating system for loan issuance, which funnels long-term capital without factoring in climate-related risks. Similarly, Environmental, Social, and Governance (ESG) evaluation is gaining popularity in India, however, it is not equipped in its current form to effectively mobilize green finance. Current ESG rating systems suffer from integrity issues as well as the lack of ability to extract the data driving those ratings, in order to focus on the environmental aspects evaluated.

Another gap in the existing frameworks is how climate risk is currently addressed in capital markets. While there is a slow but growing appreciation of how climate risk threatens assets, we still do not have adequate risk mitigation options in place. This leads to reduced capital flows towards green investment.

To address these challenges, key areas of intervention have been identified that would achieve the twin objectives of increasing finance to green activities and managing climate related financial risk. *We look at three key pillars:*

1. *Policy Interventions*
2. *Regulatory Prescriptions*
3. *Market and Institutional Mechanism*

Figure: Regulating Green Finance – Three Key Pillars

Policy interventions/ government action	Regulatory Prescriptions	Market and Institutional Mechanisms
▪ Initiate credit guarantee/enhancement ▪ Implement the use of carbon pricing ▪ Issue Green Government Securities ▪ Establish an Indian green bank ▪ Relax External Commercial Borrowing norms (international borrowing)	▪ Increase directed priority sector lending as a tool to mobilize sustainable finance Introduce carbon ratings and modify credit ratings ▪ Introduce interest subvention ▪ Modify risk weights ▪ Define and conduct stress tests and scenario analysis ▪ Introduce regulations for additional bond offerings ▪ Introduce regulations aimed at mobilizing funds from insurance and pension funds	▪ Enhance capacity building and create a data sharing platform ▪ Measure and disclose climate-related financial risk ▪ Strengthen governance and board-oversight

While some of the details of these recommendations are specific to the Indian financial system, the overall guidance applies to many middle-income developing economies. The recommendations aim to increase green finance, manage risks, or do both. They address constraints faced by banks, institutional investors, and capital markets among others.

Regulators, policymakers, and central banks will have a pivotal role to play in achieving the twin objectives mentioned, and in coordinating such activities closely. Achieving both objectives of increased climate flows and better risk management is necessary to reach India's climate and sustainability goals, and be on track to meet the 1.5°C pathway. Focusing on one over the other will not suffice.[21]

COP27, Eygpt 2022

The main objective of the COP27 climate conference held in Eygpt in 2022 is to move from pledges to implementation.

Global climate financing is significantly lower than needed and is also unevenly distributed, with Africa receiving less than 5.5%.

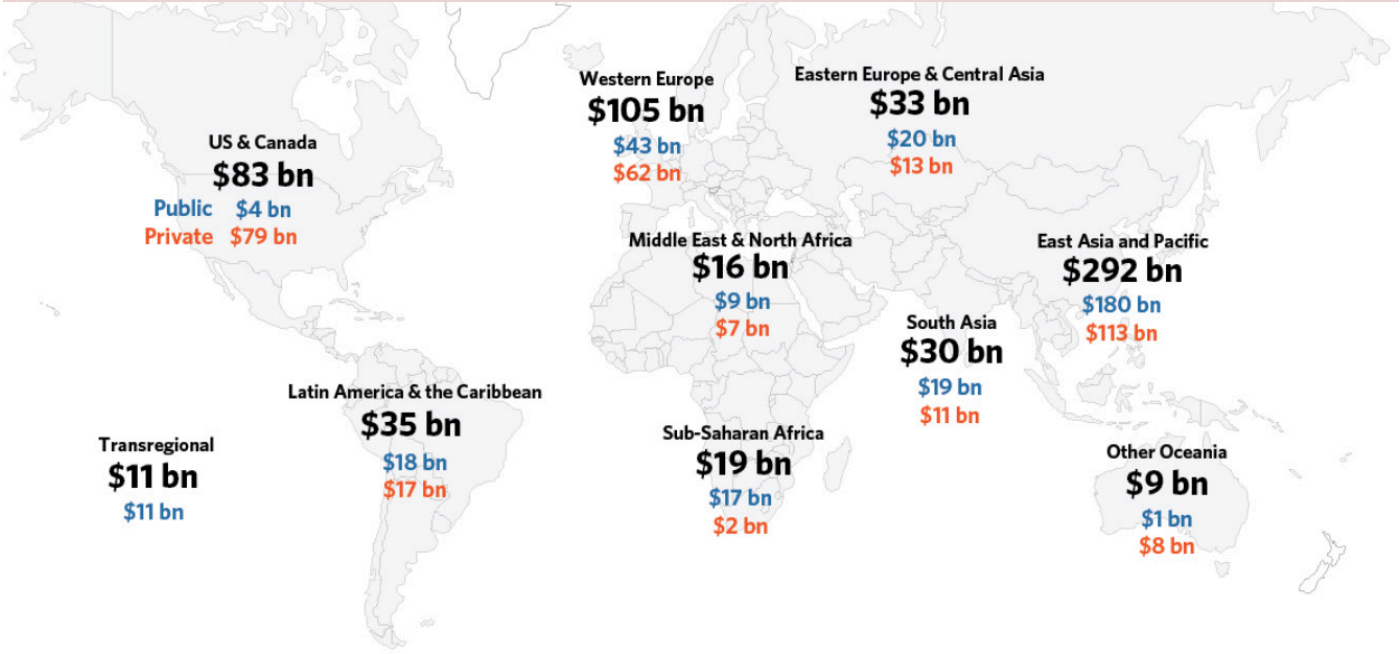
Innovative and collaborative financing models are required to finance urgent climate action, particularly in developing and emerging markets where it is needed most.

Pledged global commitments, particularly from the private sector, may not make their way to the countries that need them the most. Innovative solutions, such as de-risking instruments and blended finance, are therefore more important than ever. *The 'Sharm El-Sheikh Guidebook for Just Financing' aims to outline the key role of each stakeholder in translating financial commitments into implementable projects and address the critical challenges of leveraging and catalyzing needed finances and investments to support the climate agenda.*

As depicted by the Climate Policy Initiative, the tracked global climate finance averaged $632 billion in 2019/2020, which is significantly lower than the needed annual financing estimated at $4.13 trillion.

The map below demonstrates regional disparities, with Africa among the lowest recipients with a share less than 5.5%. Meanwhile, the continent is considered the most vulnerable to climate change. Therefore, the guidebook will target developing and emerging economies, with a special focus on Africa to unlock investment opportunities in green projects.[22]

Destination region of climate finance, by public/private (USD billion, 2019/2020 annual average)[10]



Source: Climate Policy Initiative

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