BUILDING CAPACITIES TO ACCELERATE SUSTAINABLE FINANCE AND MANAGE CLIMATE AND SUSTAINABILITY RISKS

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1. Key Messages

1. A solid knowledge base and an enhanced capacity for sustainable finance are needed across financial sector stakeholders to ensure that the relevance of climate and sustainability-related financial risks and opportunities are incorporated into their mandates at all levels.
2. There is a growing demand from frontrunning financial institutions and corporates for clear policies and regulatory guidance from central banks, ministries of finance, and market regulators to enable the integration of climate and transition risks in lending and investment. This is a global phenomenon but with varying degrees of preparedness levels in developed, industrial economies and developing economies.
3. New guidance or regulations are generating demand among financial institutions to start building the necessary capabilities and adopting improved investment and lending practices; regulators themselves are cognizant of the need to ramp up their institutional capacities.
4. There is a need to deepen climate and sustainability risk & opportunity know-how, build robust transition plans, and access green and sustainable finance.
5. The Sustainable finance Technical Assistance Action Plan (TAAP) proposed to be drawn up by the G20 Sustainable Finance Working Group (SFWG) will be well informed by a stocktake of major trends in the sustainable finance landscape, identification of universal commonalities, and build contextual priorities to deliver tailored support to relevant stakeholders focusing on creating a system where financial institutions systematically work with their borrowers to enhance resilience, reduce emissions and align themselves to Sustainable Development Goals (SDGs). To this end, direct beneficiaries of capacity-building support should include debt providers, investors, borrowers, financial sector regulators, and development banks. The focus of capacity building should be on accessing innovative financial instruments such as thematic loans and bonds and risk and policy toolkits which can be customised.

2. Introduction

The magnitude of financial assets managed by the private sector, banks and institutional investors makes them an important source of financing. However, they are not investing in green and social infrastructure at desired levels. They face several structural and institutional barriers, as well as those related to policies and regulations within their jurisdictions. Similar barriers afflict risk (climate, nature, sustainability) identification and mitigation.

Globally, some green or climate-relevant sectors are awash with capital; for example, investments in renewables reached a record high of $785 billion in 2021. But these global figures hide a disturbing trend: clean energy investments in emerging markets and developing economies (EMDEs) have declined from $73 to $68 billion between 2018 and 2021, largely due to a drop in foreign direct investment (FDI) from $22 to $15 billion.[i]

Similarly, experts surmise that the unlocking and effective deployment of the roughly US$135 trillion needed to fund the SDGs depends on addressing many critical issues. Although many investment vehicles have been created to target the SDGs, the Organization for Economic Cooperation and Development (OECD) estimates a US$4.2 trillion funding gap between the annual financing needed to meet the SDGs by 2030 and what is provided by current investment levels, with macro shocks creating additional capital needs and reducing existing funding.

Among some barriers to SDG finance flows are reasons such as a lack of standards for measuring and reporting impacts and risk, the creation of scaled funding pathways for each of the goals, and a high degree of coordination between and among public and private investors to ensure that capital is deployed most effectively. This is a problem because the climate and SDG finance needs are most pressing in EMDEs, where clean energy alone will require annual investments of $1 trillion.

There are growing requirements from regulators, financial institutions, investors, and other stakeholders to assess, disclose, and manage climate-related risks. Regulators across the world have made references to sustainability reporting based on national standards or voluntary standards such as Taskforce on Climate-related Financial Disclosures (TCFD) or Network for Greening the Financial System (NGFS). Consumers are increasingly inclined

towards green products and an environmentally conscious lifestyle with mass movement campaigns, such as Lifestyle for Environment (LiFE), initiated by India during COP26.

The increase in availability and reliance on sustainability-related data requires capacity development so that such data is systematically collected regularly, reported, and analyzed to make informed business decisions. The sustainability reporting and the data, along with investor pressures and consumer preferences, will, in turn nudge institutions to improve their sustainability profiles. Rating agencies and assurance companies need professionals to create standardized tools for financial institutions to analyze sustainability risks and opportunities.

The financial industry needs to be equipped with the right knowledge and skills in the field of sustainability to decipher the changing investor demand, understand the impact of changing regulations, and structure new financial products for entities.
The requirements for capacity development are higher in emerging markets and developing economies (EMDEs) as they are likely to suffer most from the negative impacts of climate change and need to balance economic interests for their sustainable development.

In this context of burgeoning demand for skills in the ecosystem for financing sustainable development across the developed and developing world, **the Sustainable Finance Working Group (SFWG),** during India's G20 presidency, has agreed to develop a Technical Assistance Action Plan (TAAP) with an initial set of focus areas to include the following:

i. **Transition finance framework and instruments:** Based on the G20 Transition Finance Framework developed in 2022, the TAAP may pursue work on how to assist countries in developing and implementing local versions of transition finance policy frameworks.
ii. **Climate and sustainability data gaps:** The TAAP may pursue work on how to support capacity-building efforts with a specific focus on closing climate and sustainability data gaps and improving data availability and methodological consistency.
iii. **Other focus areas,** as deemed appropriate, such as: assisting countries in building capacity to develop sustainable finance alignment approaches, disclosure policies, incentive policy design, or the design of bankable projects.

The discussion paper consists of seven sections, with section 3 highlighting capacity-building needs and skills gaps of policymakers, regulators, banks and financial institutions, and issuers

of instruments. Section 4 focuses on barriers to capital flow and risk identification with respect to transition finance framework and instruments. It also identifies measures to scale up capital flows and manage risks and capacity-building areas for mobilizing transition finance. Section 5 focuses on climate and sustainability data gaps and challenges and areas where capacity building needs to be prioritized. Section 6 discusses capacity building needs of the ecosystem at systemic, institutional and individual levels. Section 7 concludes by summarizing areas of capacity building in the areas of transition finance and climate and sustainability data.

3. Areas of demand, capacity-building needs and skill gaps

To create or design capacity development programs for the ecosystem, it is important to take into consideration the demand and existing skill gaps. As countries belonging to different regions and their financial ecosystem are not at the same growth trajectory and maturity, the one-size fits all approach might not give the desired result. Due to huge demand and skill gaps, there is a need for global financing of EMDEs' capacity development needs. The sections below briefly explain the status of capacity building and skill gaps in sustainable finance across the ecosystem, with a specific focus on developing countries.

3.1. Government (Policymakers), Financial regulators, and other related bodies

Government and financial sector regulators play a critical role in promoting sustainable finance and enabling the private sector to contribute towards sustainable development goals. Building capacity within these institutions is essential to mitigate systemic risks arising out of climate and sustainability factors, encourage responsible investment practices, mobilise global capital towards sustainable projects, and promote disclosures and transparency. A few priority areas of capacity development in these public institutions are mentioned below:

1. **Development of Framework for sustainable finance**: The central banks, capital market regulators and the government play a vital role in creating a sustainable finance market. Capital Market regulators create frameworks for sustainable finance instruments, such as green bonds, ensuring a fair, transparent, and credible sustainable finance market. Central Banks facilitate governments to issue green/sustainable debt instruments, which have attracted low-cost capital across the world. These issuances require a credible

framework for the utilization and monitoring of proceeds as well as impact reporting. In addition, the sovereign issuance creates a benchmark price/yield for private entities to raise sustainable financing, while the framework acts as a blueprint for deploying the capital into sustainable assets. For instance, India recently announced the issue of two sovereign green bonds (worth a total of INR 80 Bn)[1] backed by the Government of India's Framework for Sovereign Green Bonds.

2. **Definitions of activities:** To catalyze financing toward national targets of sustainable development goals and Paris Commitments, a classification system for green, social, and transition projects/activities will help in creating transparency and credibility in the utilization of proceeds. There has been a steady increase in countries developing classification systems, accounting for local needs and circumstances. Technical assistance is necessary for assisting, especially Emerging Markets and Developing economies (EMDEs), to develop a relevant taxonomy keeping in mind country specific circumstances.
3. **Disclosure standards and frameworks:** The increase in demand for sustainability reporting and disclosures across the globe has led to the adoption of voluntary disclosure standards (such as TCFD, Global Reporting Initiative (GRI), etc..) by entities and, in a few nations, the development of sustainability reporting requirements by regulators. In India, the Securities and Board Exchange of India (SEBI) introduced sustainability reporting requirements for the top 1000 listed entities known as Business Responsibility and Sustainability Reporting (BRSR)[2]. Regulators need the capacity to develop reporting requirements with domestic frameworks to ensure consistent sustainability-related data globally.
4. In addition to the above, policymakers and regulators across the EMDEs, need the capacity to create enabling regulations and policy incentives for the development of new ESG-related financial products. Government institutions need to build capacity for creating a green project pipeline and build Monitoring, Reporting and Verification (MRV) capabilities. Also, it is critical to build capacities, especially across EMDEs, for climate adaptation and resilience building.

[1] https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=55077
[2] https://www.sebi.gov.in/legal/circulars/may-2021/business-responsibility-and-sustainability-reporting-by-listed-entities_50096.html

3.2. **Banks and Financial Intermediaries**

Banks and other financial intermediaries play a pivotal role in helping economies address the climate crisis and facilitating low-carbon transition through efficient capital allocation. Since most of the banks' exposure to climate risks arises from loans and investments, embedding climate risks and opportunities into banking models is inevitable. Developments in sustainable finance have picked up pace across global markets. Recently, a guidance[3] was issued by the Central Bank of Kenya in 2021 to enable banks to integrate climate-related opportunities and risks in their governance structure, strategy, and risk management frameworks. The Central Bank of Malaysia issued its climate change and principle-based taxonomy[4]. In India, RBI is moving towards guidelines on disclosure framework on climate-related financial risks, climate scenario analysis and stress testing, and SEBI-mandated BRSR for the top 1000 listed entities.

The business integration of climate and sustainability risks and opportunities, along with increased regulatory obligations, has created a huge demand for skilled professionals across financial institutions. There is an immediate need for capacity development in the following areas.

i. Banks and financial institutions need to incorporate climate risks and opportunities in their governance, investment strategy, and risk management based on well-accepted frameworks such as TCFD.

ii. Climate change scenarios and stress testing play a crucial role in creating a resilient financial infrastructure by identifying and mitigating risks. The financial entities need to develop the ability to undertake scenario analysis and act to mitigate long-term risks.

iii. Investor demand for sustainable financial products has grown rapidly. The ability to structure products and create processes to maintain the credibility of these products is important.

    a. Banks offer innovative products such as green deposits and green loans to consumers.

[3] Climate Risk Regulation in Africa's Financial Sector (Baseline Study)

[4] Malaysia Principle-based Taxonomy

b. Fund managers increasingly offer schemes that have ESG investment objectives in addition to financial returns. The investment strategies need to incorporate tools, metrics, and targets in their processes and disclose ESG performance.

iv. Financial institutions are increasingly held responsible for the environmental and social impact of their portfolios. Impact measurement by identifying and measuring metrics such as GHG emissions and water usage is an area for capacity building.

3.3. Issuers

Building skills in sustainable finance is essential for companies that raise capital for sustainable projects or activities. ESG-labelled securities are designed to meet investor demand, enhance credibility, and mitigate risk. By effectively communicating their sustainability performance and impact through disclosures, issuers can contribute to the development of sustainable finance practices that promote environmental and social sustainability, as well as financial stability and economic growth. Based on the survey of various stakeholders, it is observed that skill developments in the following are the need of the hour.

i. Understanding of national, regional, and local regulatory requirements on the environment, health, safety, and social aspects.
ii. Design and implementation of sustainable finance instruments/products
iii. Sustainability reporting
iv. ESG assessment
v. Climate and sustainability risks
vi. Impact measurement and reporting
vii. Metrics and tools (GHG accounting, carbon pricing, etc.)

In addition to the above key institutions in the financial market, retail investors need to understand the characteristics of sustainable finance products to evaluate them and understand sustainability-related information. Hence, it is necessary to educate retail investors on sustainable finance to protect themselves against fraud and greenwashing.

4. Focus area 1: Transition finance framework and instruments

Innovative financing instruments have a variety of new features and benefits. Since the first green bond was issued in 2007, today the sustainable finance landscape has evolved to include a plethora of thematic loans and bonds such as green, social, sustainable, sustainability-linked, pandemic, blue bonds etc. The global market in thematic bonds is today USD3.5 trillion from a few billion a decade ago presenting a huge opportunity to mobilise large-scale green investment.

These financing instruments also have systemic benefits like transparency, additional liquidity, new class of investors, higher capital flows to long-term investment needs, and more comprehensive risk identification, management and thus effective capital allocation.

However, understanding of these benefits is limited leading to suboptimal utilization of new sources to access this source of finance. Additionally, as these instruments have particular requirements to distinguish them from non-thematic financial instruments, those steps, processes, accountability mechanisms, disclosures and reporting, either voluntary or mandated by regulation all need to be understood and made mainstream within different functional verticals of financial institutions. Adequate sensitization and capacities are thus critical to identifying opportunities and projects, and deploying the right kind of innovative financial instruments to finance them.

Since this is a rapidly evolving field, the need for awareness building as well as tailored support is expressed to be high by all stakeholders, financial institutions, policymakers and regulators.

4.1. Key Barriers to Capital Flow and Risk Identification

Lowering of barriers mentioned below is required so that larger volumes of finance can flow to climate and sustainability focussed projects. Different entities will need tailored capacities and awareness to access the type of capital required by them for their portfolio of green projects and activities. This will be important as multiple sources of finance such as equity, debt, concessional/impact loans, and grants will be needed for projects located across the risk-return spectrum.

i) Key Barriers to capital flow towards sustainable development (focus on green and transition finance flows)

- Asset-liability mismatches in sustainable projects discourage both project developers and financiers.
- Limited financial incentives for borrowers to certify their projects restrict many green and sustainable businesses from migrating from banks to the capital market, thus limiting their capital-raising capacity.
- Underdeveloped capital markets provide long-term capital from investors having an appetite to invest in long-dated sustainable infrastructure assets
- The early-stage, small, innovative, unproven nature of many sustainable businesses limits their access to commercial capital.
- Existing debt instruments (lending) used by banks and NBFCs do not capture the benefits of sustainability in their terms of credit.
- Barriers to cross-border financial flows for green and transitional activities:
    - Inadequate visibility of investible pipelines. Ticket sizes below $200 million are automatically screened out by most institutional investors. Although some renewable energy projects easily reach that bankability threshold, their number in EMDEs has shrunk.[ii]
    - Low risk-adjusted returns. Although returns are growing due to the increased cost-competitiveness of renewables, so too are risks due to the physical impacts of climate change, rising inflation, indebtedness and depreciation of currencies
    - High costs of capital: Many low-carbon projects are sensitive to increased financing costs and risks because they are cheap to run but expensive to build. Currency risk has therefore been a persistent barrier to climate finance in developing countries. The US Federal Reserve's interest rate hikes and resulting dollar strength have heightened that risk even further and instigated capital flight from EMDEs.
    - Stability of policy/ lack of policy support for scaling up transitional activities

ii) Key Barriers to climate and sustainability risk identification and mitigation

- Knowledge and technical gaps: There is a lack of proper understanding of the financial implications of climate and sustainability risk and opportunity, resulting in its underestimation in lending and investments.
- Information asymmetry between borrowers and lenders/investors leads to market inefficiencies in assessing risks and opportunities accurately.
- Incoherence between practices of sustainability data and rating providers on methodologies leads to conflicting results.
- The lack of adequate disclosure and reporting by businesses (borrowers) limits banks and institutional investors in mapping their climate risks and opportunities.
- This also limits financial policy and regulators in assessing climate-related risks in the financial system.
- No mandatory requirement for integrating climate and sustainability risks into financial risk models of banks and institutional investors delays solutions to data challenges and can mask stranded assets in the system.
- The inadequate historical record of sustainability and climate risk makes it challenging for financers and rating agencies to take informed decisions as they rely on empirical evidence to rate fixed-income securities and loans.
- Banks and large institutional investors rely heavily on the historical record of businesses and industries to price investments and take investment decisions.
- Since existing data on climate change and sustainability are at a nascent stage and are still evolving, it is challenging to ascertain the financial implications of this risk by using existing sustainability data, especially as most of the risks and opportunities are forward-looking.

4.2. Steps To Scale Up Capital Flows and Manage Risks

Table 1. Snapshot of steps required to scale up capital flows and manage risks and barriers

Mobilising capital flow	Enhancing the financial system's resilience	Cross-cutting ecosystem enabling measures
• Determining the right mix of capital instruments for priority investments (loans, bonds, equity) • Broadening the tent from pure play green to financing credible brown-to-green transitions and resilience measures to be financed • Framing mechanisms to lower the cost of capital and de-risking investments (blended finance structures) • Enabling sovereign and sub-sovereign issues to green the capital-raising plans of central and state governments • Initiating and deepening the dialogue between investors/lenders and issuers/borrowers • Repurposing national DFIs • Identifying investible sustainable activities in different sectors based on science-backed criteria for transition as per IPCC/country pathway (taxonomy and standards) • Definitions and classification of activities	• Integrating climate risk in lending and investment by financial institutions, regulators • Increasing transparency and accountability through disclosures • Regulatory alignment and incentives for scaling up sustainable finance • Regulatory and policy measures for sustainability and climate-aligned capital allocation for financial sector resilience and stability	• Building capacities of financial institutions, policymakers, regulators and other stakeholders on priority investments and integrating climate risk • Carving out international cooperation compacts for greater coordination to ease and enhance the cross-border flow of green capital into emerging economies • Increasing use of technology and digitalisation for financing sustainability and climate action

and resilience factors alongside de-carbonisation		

With the above snapshot as the backdrop, this paper focuses on India's G20 Presidency, which can advance two critical elements of achieving green and transition finance through capacity building:

1. Building tailored know-how on identifying and realizing the opportunities associated with green and transition finance.
2. Building tailored knowhow on identification, disclosure and management of physical and transition risks associated with climate change (and nature);

4.2.1. Building Tailored Support for Identifying Opportunities Associated with Green And Transition Finance

Building tailored know-how on identifying and realising the opportunities associated with green and transition finance.

The level of understanding of financial institutions (Fis) and development banks on climate, nature and sustainability risks and opportunities varies. While some Fis are in the process of designing new products and stylized multiple new thematic instruments (like green bonds, transition and sustainability-linked bonds and loans), and some have started using privately available tools to integrate climate and sustainability risks, there is a general lack of proper skills to understand the financial implications of such transition-related aspects on their operations and portfolios. Fis must accordingly develop skill upgradation programmes to re-purpose the existing models of risk management or access innovative financing instruments.

Plugging the knowledge gap of different actors, through capacity building, will enable them to deploy different instruments and unlock private capital from high-income countries for emerging and developing countries. Capacity building will further mainstream these concepts through market development within countries and leveraging domestic and global pools of finance for transition. The know-how to identify a credible transition finance activity and set up internal processes, and continually improve it, as well as coordinate between treasury, sustainability and other vertices will be important. This would mean upgrading and/or inviting expertise, and assurers to keep the plan and its implementation robust. In this context,

Illustrative examples of financial sector actors and instruments that could unlock private capital for green and transition finance are in the **annexure**.

Critically, no industry or organisation can be left behind in the process of transition. While progress has been made in expanding renewable energy supplies and reducing our reliance on fossil fuels, in the energy and transport sectors particularly, many other activities continue at levels of emissions that have the potential to stall or undermine the low carbon resilient transition. Addressing this means companies producing goods and services needed in the long term are rapidly and progressively decarbonising their activities (this includes 'hard-to-abate' sectors such as cement, steel, and aviation). Alongside this, it means companies producing goods and services that cannot be aligned with a low carbon economy and for which substitutes exist 'transition away' from their current activities and re-orientate their business around activities that can be so aligned (for example, a fossil fuel energy generation company re-orientating its business to generate energy from renewables). And it means the rapid ramp-up of activities which enable either of the above to happen.

It means that to mobilise capital for transition finance, the universe of instruments will expand, as listed in the **annexure**. The know-how to identify a credible transition finance activity and set up internal processes, and continually improve it, as well as coordinate between treasury, sustainability and other vertices, will be important. This would mean upgrading skills and/or inviting expertise and assurers to keep the plan and its implementation robust.

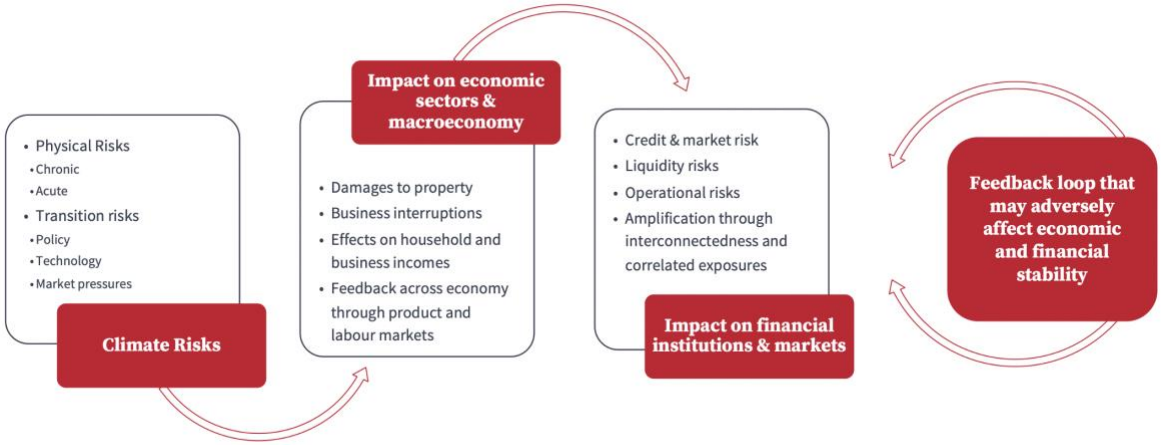
4.2.2. Building Tailored Support for Identification, Disclosure and Management of Physical And Transition Risks

Building tailored knowhow on identification, disclosure and management of physical and transition risks associated with climate change (and nature)

Despite the growing physical and transition risks associated with climate change, most financial institutions do not collect climate-relevant information, such as the carbon intensity of their lending portfolios, and are not required to disclose this information. Recognising the systemic risk that climate change causes to price and financial market stability, there is growing momentum among central banks and financial supervisors within the G20 to

encourage and eventually enforce regulated entities to identify, disclose and mitigate such risks in their portfolios. However, policy experimentation around mapping and managing financial-sector risks associated with climate change has largely been concentrated in high- and upper-middle-income countries to date, particularly China, Mexico, and various European central banks.[iii]

Figure 1. Physical and transition risk feedback loop



Source: Authors

Preliminary analyses suggest that G20 countries and regions may be significantly exposed to the physical and transition risks of climate change (see Table 2).

Table 2. Exposure to physical and transition risks of climate change in some G20 members

Type of climate-related risk	**Exposure of G20 members**
Physical risks of climate change	The European Investment Bank's Climate Risk Country Scores provide a systematic assessment of the climate-related physical and transition risks faced by 184 countries over the next 5–10 years. **India** emerges as the only G20 country facing elevated physical risks of climate change in this period.[iv]
	The Cross Dependency Initiative's (XDI) Gross Domestic Climate Risk report for 2023 ranks regions across the world according to the exposure of buildings and properties to acute physical risks of climate change, such as heat waves, flooding, strong winds, forest fires or soil movements. Among the top 50 most vulnerable regions around the world, 80% are located in China, India or the United States.[v]

Transition risks of climate change	The European Central Bank (ECB) has mapped the **euro area's** banking sector's exposure to climate policy-relevant sectors. 8% of domestic bank lending to non-financial corporations in the Euro region is to energy-intensive sectors[5] , and 5% of bank lending in the euro area is to electricity utilities.[vi] However, the carbon intensity of European electricity is relatively low on average, so the transition risks associated with this outstanding credit are relatively small.
	Climate Bonds Initiative, ODI and auctusESG have mapped the **Indian** banking sector's exposure to climate-policy relevant sectors. 12% of outstanding credit is to energy-intensive sectors[6] , and 5% is to power generation.[vii] However, the carbon intensity of Indian electricity is relatively high, so the transition risks associated with these bank loans are quite significant.

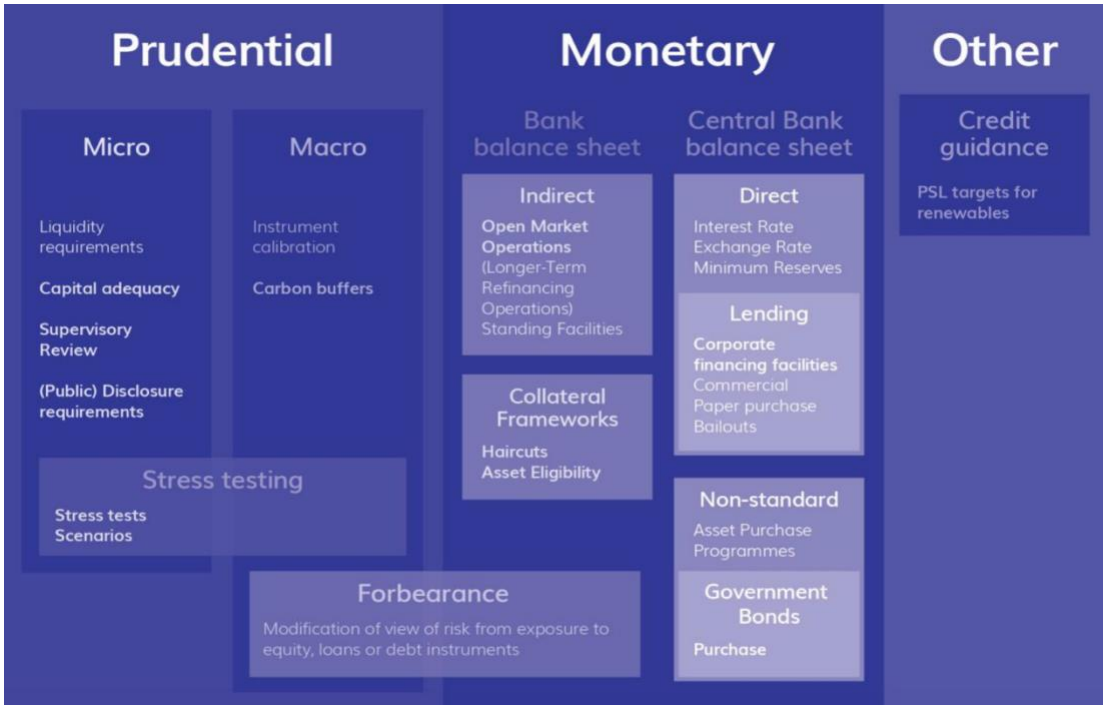
Worldwide, many central banks and supervisors are beginning to explore their role in managing the possible physical and transition risks of climate change, including those of G20 members: Banco Central do Brasil, the People's Bank of China, the Bank of England, Banque de France, the Reserve Bank of India, the Bank Indonesia and the Banco de México. Central bankers are able to justify their interventions on the basis that stranded assets and other transition risks pose a potential threat to their primary mandate(s) of monetary and/or financial stability.

Central banks have a wide range of powers, including setting target interest rates (and intervening in money and financial markets to achieve the desired rates), lending to financial institutions for liquidity and settlement purposes, and supervisory and regulatory powers to ensure that individual financial institutions have sufficient capital and liquidity to cover potential losses. Their supervisory and regulatory powers constitute an extensive toolkit for achieving their given mandates of monetary and financial stability. Figure 2 below is a stylized representation of central banks' toolkits. Options in bold are or could be modified to manage climate (and nature) risk.

[5] Mining of iron metal ores and fertilisers; some food and beverage processing; the production of cement, ceramics and glass, textiles, leather, pulp, paper and other wood products; and the manufacture of steel, iron, machinery, aircraft, automobiles and more.

[6] Mining of iron metal ores and fertilisers; some food and beverage processing; the production of cement, ceramics and glass, textiles, leather, pulp, paper and other wood products; and the manufacture of steel, iron, machinery, aircraft, automobiles and more.

Figure 2. Policy toolkit of a stylized central bank.



Source: Vaze P, Kumar N, Colenbrander S, Burge L, Sharma N. (2022) Identifying, managing and disclosing climate-related financial risks in India: Options for the RBI of India. London: ODI, Climate Bonds Initiative

This can be taken as a framework, combined with topics covered in the sections below for tailored support to central banks and financial institutions, and their borrowers. Ultimately, the change being pursued here is that through more (climate and sustainability) informed lending and investment practices and engagement with borrowers, real economy investments can shift at scale towards climate, (nature) and sustainable solutions, feeding back into incentive structures and policy responses that can make the financial system more resilient, stable and responsive to climate and sustainability risks and opportunities.

4.3. Capacity building areas for mobilizing transition finance

The capacity building of the following broad areas needs to be prioritized for mobilizing transition finance:

i. **Transition Finance Principles/Definitions**: As highlighted in the G20 Sustainable Finance Working Group report under Indonesia's presidency[7], policymakers and regulators across the world need to build a set of principles for the identification of

[7] https://g20sfwg.org/wp-content/uploads/2022/10/2022-G20-Sustainable-Finance-Report-2.pdf

transitional activities or define transitional activities for developing the transition finance market, particularly in EMDEs. The market participants need to build capacity on utilizing national/regional level frameworks for transition finance and voluntary international frameworks/principles such as those developed by International Capital Market Association (ICMA) and Climate Bonds Initiative (CBI).

ii. **Transition Plans**: Companies need to develop and execute a transition strategy (including targets, actions, progress, and accountability mechanisms) to transform their business model and operations towards low-emission, climate-resilient pathways.

iii. **Transition Instruments**: A toolbox of transition instruments need to be available for entities to raise finance for implementing transition plans.

   a. Debt instruments such as transition loans/bonds, sustainability-linked loans/bonds
   b. Transition-focused funds
   c. Risk mitigation products include insurance, guarantees, credit enhancement, and blended finance.
   d. Other instruments such as asset-backed securities, real estate investment trusts, and ETFs support the transition.

iv. **Data and Reporting**: Capacity building on the integration of appropriate data formats and relevant data in transition plans for corporates and financial institutions is crucial to create the credibility of transition claims. The reporting of information on methodologies, and processes along with reliable, consistent, and comparable data, at regular intervals, creates confidence in the transition finance instruments.

v. **Policy Tools**: Policymakers and regulators need to deploy price and non-price policy tools, measures, and incentives to align the economy and financial markets toward a low-carbon transition. The case studies, experiences, and learnings are especially important for developing countries to catalyze investments for transitioning towards low-emission and climate-resilient development.

5. Focus area 2: Climate and sustainability data gaps

Sustainability reporting is an evolving area. It, therefore, needs holistic thinking and an integrated approach to responding with a long-term perspective. Investments have to be made in the near and medium term for managing longer-term developmental and climate challenges. Investors and governments must estimate sectoral and sub-regional risks to make wiser investment decisions. There are uncertainties due to incomplete understanding and incomplete information, and therefore, data is needed for making appropriate investments. Climate and sustainability data gaps refer to these areas where there is a lack of information or incomplete data. This also hinders the understanding of the environmental impact of human activities and the effectiveness of sustainability efforts. Some common examples of climate and sustainability data gaps include greenhouse gas emissions from various sources, data on the environmental impact of products and services, social and economic impacts of sustainability efforts, and comprehensive data on the health and functioning of ecosystems.

5.1. Data gaps and challenges

Gaps in sustainability and climate-related data encompass several dimensions: availability (e.g., coverage, granularity, accessibility), reliability (e.g., quality, suitability, transparency), and comparability[8]. The lack of quality in data deters institutional investors from using the data for investment decisions. Addressing these data gaps is essential to developing effective sustainability policies and strategies and to accurately tracking progress towards environmental goals.

A CBI-ODI-auctusESG study[9] reveals that less than half of the participating institutions systemically identify, quantify, and use climate and sustainability risks to guide financial decisions. Almost half of the participating banks do not have a standalone framework for assessing ESG risks. The key challenges for introducing disclosure processes for ESG and climate risks include the lack of capacity to analyze and report the data, and the lack of data, data collection tools, and understanding of frameworks.

[8] https://www.ngfs.net/sites/default/files/medias/documents/progress_report_on_bridging_data_gaps.pdf
[9] https://cdn.odi.org/media/documents/ESG_and_climate_risk_management_in_India_-_ODI_auctusESG_and_CBI45.pdf

5.2. Capacity Building in Climate and Sustainability Data Gaps

To mobilize finance toward green and sustainable projects, increase the confidence of the investors and avoid greenwashing, it is imperative that sustainability and climate-related data gaps need to be addressed. The skill gaps in the below areas need to be prioritized.

i. **Sustainability and Climate Risks**: Climate and sustainability risks are systemic and are important to be identified, analyzed, and managed by central bankers, policymakers, and financial entities at the firm, sectoral and sub-regional levels. The entities need to identify material risks related to climate and sustainability and incorporate mitigation measures based on scenario analysis. Identification and measurement of reliable data that underpins the assessment of risks is a critical skill gap that needs to be prioritized.

ii. **Metrics and Targets:** The disclosure frameworks and standards for sustainability reporting by entities help financial entities and investors to understand how business activities are impacted by sustainability risks and how the companies impact people and the environment. To ensure consistent disclosures of entities, it is necessary to identify and measure cross-industry common metrics such as emissions metrics, carbon intensity, and water usage. In addition, industry-specific metrics such as the percentage of recycled plastic in consumer staples, and metrics related to biodiversity are necessary for disclosures to be effective and complete. An organization may need to define targets over the medium and long term in alignment with its sustainability strategy. These targets may be absolute or relative, benchmark or index-based based. The huge skill gap in companies, financial intermediaries, and regulators in identifying and measuring metrics and targets is a priority area to be addressed.

iii. **Data formats:** Enhanced Transparency Framework, as decided under UNFCCC, suggest all countries report their future GHG mitigation and climate change impacts. These national-level assessments have to be cascaded to the firm level, especially for risk assessments. Sustainability reporting frameworks can follow a similar data format so that firm-level reporting becomes consistent. The structured data will also enable issuers, fund managers, and other stakeholders to consistently disclose their sustainability reports. The technological solutions (including the use of AI and ML) by GreenTech/ClimateTech can play an important role in this regard. It would be challenging to devise and decide on common formats for all firms. However, to

address sustainability and climate data gaps, data formats would have to be created that are simple to follow, easy to fill and report, and aligned with investors' needs.

iv. **Tools:** For investments to flow towards sustainable projects and activities and to monitor the progress, tools such as screening lists, and climate risk scores are useful in integrating the ESG parameters into their operations and investment decision-making. There is a need to build the capacity of issuers, investors, and financial intermediaries to develop and understand these tools for better tracking and deployment of sustainable financing.

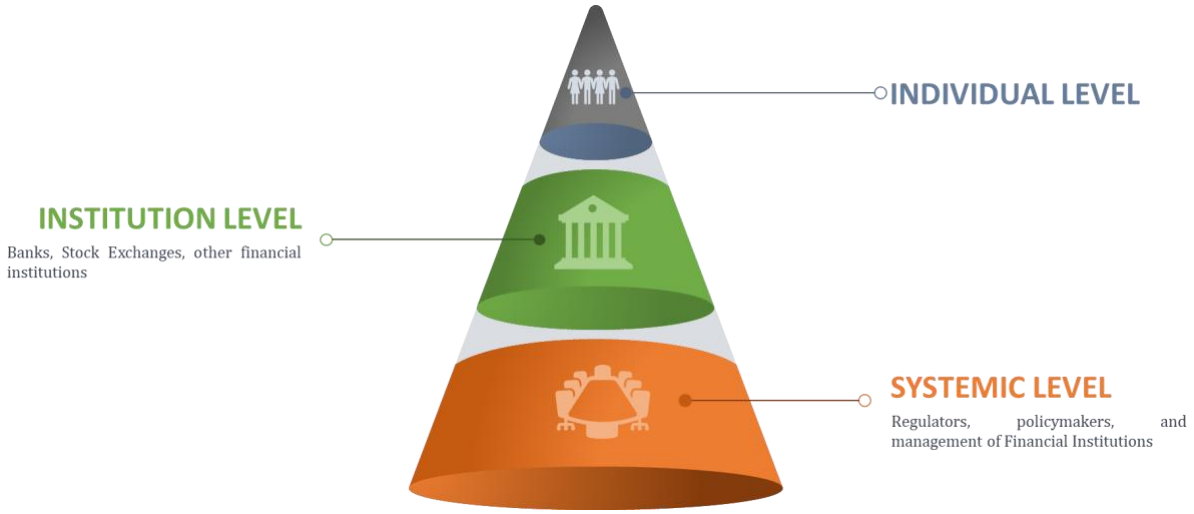
6. Capacity Building for the ecosystem toward sustainable development

As highlighted above, the skill gaps and data barriers exist across stakeholder groups: companies, banks, financial intermediaries, investors, regulators, and governments, who are at different stages concerning their sustainable journey. Hence, one size-fit-all approach for capacity development will not entail the desired results. To design and develop capacity development programs for any region/country/entity, there is a need to map the ambition, growth trajectory, resource availability, and existing skill sets available. Accordingly, there is a need to design and develop training modules and delivery mechanisms to achieve their sustainability and climate goals.

Keeping into consideration of above, there is a need to have a multi-pronged approach[10] to guide various stakeholders in bridging the skill gaps to achieve Nationally Determined Targets (NDCs) and Paris Agreement (Figure 3).

[10] https://ifsca.gov.in/Viewer/ReportandPublication/33

Figure 3. Multi-level approach for the capacity building activities



Source: Report of Expert Committee on Sustainable Finance, IFSCA

6.1. Systemic Level

Capacity development at the systemic level aims to support governments and regulators to accelerate investment in clean energy. Regulators, policymakers, and management of financial institutions should undergo capacity building on Sustainable Finance. To achieve this, financial sector regulators and governments should organize training for their staff. Faculty for such training could be provided by leading academics and professionals from international organizations like the World Bank, United Nations, Organisation for Economic Co-operation and Development (OECD), or regulators from European Union (EU), Luxembourg, or other nations who have experience in policy making on Sustainable Finance. In addition, subject matter experts from private consulting firms and top management institutions could be involved to bring in practical inputs for designing material and curriculum for various levels, compliance monitoring, and for imparting training at all levels.

6.2. Institution level

Banks/Financial Institutions should facilitate education programs to train the institutions towards integration of sustainability factors into their operations. Some of the methods to do the same area as under:[10]

i. Mandatory Certifications – The personnel/managers involved in the design, development, and selling function of sustainable finance/ green products must necessarily undergo a certification course and gain accreditation from recognized

organizations. These certification courses could be designed by bodies like the Institute of Chartered Accountants of India (ICAI), CFA Institute, Global Association of Risk Professionals (GARP), etc.,

ii. Industry-ready and industry-acceptable certification programs: Such programs can be launched to increase the human resources capable of evaluating sustainable finance reporting and ratings over the next few years. Respective financial sector regulators may authorize these professionals to operate within their jurisdiction on a principles-based approach.

iii. Continuing professional education requirements for enhancing knowledge and skills– Financial institutions should incentivize their staff to undertake training on Sustainable Finance/ responsible investment through attending seminars/conferences, certifications, e-learning courses, etc. This is important to understand and evaluate the key risks and opportunities and provide adequate direction to their respective organizations.

iv. Corporates (including SMEs) – Financial sector regulators could collaborate with industry bodies to introduce capacity-building programs for the Key Managerial Personnel (KMP) of corporates to sensitize them on the key tenets of sustainability reporting, best-in-class sustainability reporting practices, and opportunities to avail low-cost sustainable finance. These training programs could be facilitated in collaboration with globally recognized organizations, academic institutions, and consulting firms.

6.3. Individual level

At an individual level, the respective governments could engage with academic institutions/universities to introduce specialized courses or degree programs in the field of Sustainable Finance. A component should also be introduced as a part of the current management, financial, and economics graduate course curriculum. Students could be provided with an option to gain dual specialization (with a Sustainable Finance component).

7. Conclusion

Capacity building of stakeholders will enable them to deploy diverse financial instruments, unlock domestic and global pools of finance for transition, and mainstream sustainability

concepts through market development and diversification within countries. Table 3 summarizes capacity-building needs in areas of transition finance and climate and sustainability data.

Table 3: Summary of capacity building needs in areas of transition finance and climate and sustainability data.

Transition finance framework and instruments	Climate and sustainability data
Develop a set of principles to identify transitional activities or define transitional activities for developing the transition finance market	Identifying material risks related to climate and sustainability and incorporating mitigation measures
Develop transition plans and execute a transition strategy to transform the business model and operations towards sustainability	Identifying and measuring cross-industry common metrics for effective and complete disclosures
Develop a toolbox of transition instruments	Develop structured data formats to report future GHG mitigation and climate change impacts at the national as well as firm level
Develop data and reporting capability to integrate appropriate data formats and relevant data in transition plans	Build the capacity of issuers, investors, and financial intermediaries to develop and understand tools of sustainability reporting for better tracking and deployment of sustainable financing.
Deploy diversified policy toolkit to align companies/ economy towards sustainability	

The two focus areas taken up in this paper can serve to refine and build out an approach that is climate and sustainability compatible, inclusive, and yet objective to propose sustainable finance architecture aligned not only interests of the countries across the world but also to the aspirations of the global south.

Policy Questions

1. What should the G20 Sustainable Finance Technical Assistance Action Plan (TAAP) areas of work be in order to move forward with comprehensive strategies to address challenges, skill gaps, and collaboration needs while ensuring accessibility, effectiveness, agility, and adaptation to local contexts, as well as involving stakeholders?

2. What are the TAAP's possible deliverables, and how can they be monitored to assure the initiative's success?
3. How can various stakeholders work together to develop capacity-building programs that effectively address the unique needs of different groups while fostering collaboration and knowledge sharing, while also creating and promoting comprehensive training modules, certification programs, and educational opportunities that bridge the skill gaps in sustainable finance, ensuring a steady pipeline of professionals capable of navigating the challenges associated with transition?

Annexure

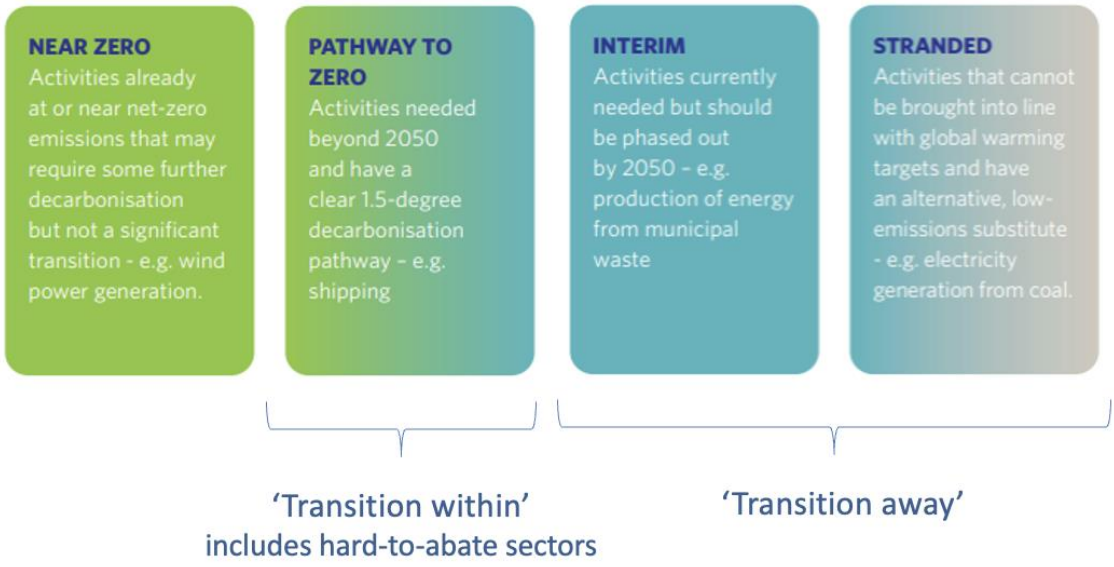
A. Illustrative examples of financial sector actors and instruments that could unlock private capital for green and transition finance

Entity	Advantages	Actions to unlock potential
Different actors		
National Development Banks	Compared to multilateral development banks, NDBs are deeply rooted in the national context, with unrivalled knowledge of local markets and long-standing relationships with local private and public sector actors. This often makes them better placed to understand and price risks; build pipelines; originate investment opportunities; and intermediate public and private domestic and international capital. Compared to domestic commercial banks, NDBs are less risk-averse and able to provide the longer-term, affordable financing necessary for public goods. They have also played an important role in shaping policies and developing local capital markets, which can incentivise climate-smart investment within countries. NDBs such as PT SMI in Indonesia and NAFIN in Mexico were among the first issuers of green bonds in their respective countries	NDBs must have enough capital to operate at the scale that is required. With a few exceptions, such as the China Development Bank, the Brazilian Development Bank (BNDES) and Germany's KfW, most NDBs have small capital bases. In Africa, NDBs are relatively small and struggle with high currency mismatches on their balance sheets.[viii] NDBs, therefore, need more support from their national governments and access to international concessional finance to create climate investment opportunities at scale. NaBFID, India's newly operational infrastructure development bank, capitalised with INR 20000 crore, could mobilise thematic debt onshore or offshore five times this seed corpus.
Banks	Direct agents of change, direct beneficiaries --- Examples:	-Examples ---

	• Developing science-based transition plans adapted to country scenarios derived from NGFS (and IEA) and identifying credible finance opportunities. • Loan products aligned to climate and sustainability solutions	---Embed sustainability into the bank's engagement and oversight at the leadership level -Integration of sustainability aspects into loans and investments decisions ---self-assessment tool to measure the performance on transition plans and instruments, opportunity assessment --- building a green loan book and raising finance for credible green transition through domestic/international capital markets (recycling capital) Targeted support to select banks for engagement with their leading borrowers on transition investment plans
Government	Clear definitions of green and transitional activities and approach towards transition finance as a subset of sustainable finance	Clear signals on financial policy and regulation, incentives
Regulators	Definition and disclosure frameworks	Guidelines and guidance on financial instruments, definitional criteria, and database of financial flows
Diverse instruments and financial structures		
Thematic bonds	• Large opportunity to drive private capital for green and transition finance: Credible green, social, sustainable,	--creating a market for certified issuances tapping international and domestic capital pools, --diverse issuers – governments, banks, companies, PSUs

	sustainability linked (GSS+) --- USD 3.5 trillion globally • Energy is the most funded sector, followed by transport, land use and buildings.	--- promote sovereign and sub-sovereign issuances for liquidity and market-making effects - local currency thematic issuance, especially by sovereigns, to avoid currency mismatch and guard against volatility in international markets, thus protecting against external debt traps. Following India's success, Brazil plans to issue local currency debt to mobilise financing for climate and SDG-aligned transition
Transition plans	1. Paris-aligned targets* (see Figure A.1 below) 2. Robust plans 3. Implementation action 4. Internal monitoring 5. External reporting.	--- financial institutions can use this to rebalance portfolios, integrate scenarios, --- corporate borrowers --- governments and regulators
De-risking instruments (guarantees, credit enhancement, blended finance	A larger number of green projects in the pipeline	Blended finance solutions alongside platforms like investment trusts, real estate trusts and alternative investment funds to extend credit and refinance portfolios of green assets or credible transition plans. Currently, their scale is very small, and processes are too cumbersome.

Figure A.1 Paris-Align Targets



Source: Climate Bonds Initiative

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