Practical actions to finance India's sustainable recovery

Report

INDIA-UK SUSTAINABLE FINANCE WORKING GROUP

JANUARY 2021

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FOREWORD

The India-UK Sustainable Finance Working Group was set up in May 2019 to scale flows of finance to support India's ambitious sustainable development goals. The group is unique in bringing together private sector suppliers of capital and consumers of capital to discuss practical actions to increase flows of sustainable finance, particularly into infrastructure. The composition includes some of the largest mutual funds, banks, asset managers and borrowers with top level executives from these organisations who are well versed with sustainable finance aspects, reflecting their practical experiences.

We published our first report, Supercharging Green Finance in India, in late 2019 shortly before the onset of Covid-19. As the world seeks to recover from the pandemic, it is clear that financiers have a substantial role to play in building back better, capitalising a sustainable recovery, unlocking capital in support of India's economy and sustainable finance agenda. There is already evidence that finance is rising to the challenge. Sustainable funds outperformed during the downturn and investor appetite for sustainable projects continues to grow rapidly.

However, there remains a persistent financing gap for the infrastructure we need for our future. The challenge is how to close this gap by mobilising private capital at scale into opportunities aligned with sustainable future. This was a critical issue for the 10th India-UK Economic and Financial Dialogue.

We are encouraged that the Ministry of Finance and HMT indicated their strong support for the work of the India-UK Sustainable Finance Working Group, anchored by FICCI and City of London, during the 10th Economic and Financial Dialogue (EFD). We also look forward to the Hon'ble Prime Minister of UK's next visit to India and the engagements by both Governments on sustainable finance co-operation.

We have developed this report which sets out practical actions that government and the private sector can take to unlock capital in support of India's sustainable recovery. In the first instance, with our working group members, we will focus on advancing three interlinked priorities over the coming 12 months.

1. Clear and consistent sustainable finance definitions

2. Mobilising domestic capital

3. Attracting international capital

Our immediate priority will be to progress the ten short term actions developed in the course of this report. We firmly believe these actions have the potential to unlock new capital quickly. But delivering them will require close working between our members, UK and Indian government colleagues and regulators. Over the long term, India has an immense opportunity to become a global sustainable finance leader. Each of our sub-working groups has a clear vision of the long-term focus areas to deliver long-term competitiveness.

There has been enormous enthusiasm for the group as we have developed this report. A rich vein of detailed analysis and granular suggestions are included as annexes to the report. We hope to explore these in depth with policymakers in the coming months. Over the same time horizon, we will also look to new priorities including looking into sectoral transition pathways.

Finally, special thanks must go to Navneet Munot, Anita George, Sunil Jain, and VS Rangan for ably leading our sub-working groups and driving this agenda forward; to the sub-working group members who provided practical insights and inputs, to Akshay Paonaskar for his superb drafting skill, and to the FICCI and City of London Secretariat for coordinating the entire effort.

Richard Abel
Co-Chair

Hitendra Dave
Co-Chair

EXECUTIVE SUMMARY

Globally, sustainable finance is gaining momentum. Refinitiv research shows that inflows into environmental, social and governance (ESG) funds in the first quarter of 2020 were USD 36 billion. Covid-19 has accelerated a previous trend of increased financial flows into ESG products. The trend looks set to continue with PwC forecasting that ESG funds will outnumber conventional funds by 2025. Mutual fund assets held by investors in Europe that consider ESG factors is forecasted to increase from 15% today to 57% in 2025, amounting to EUR 7.6 trillion (USD 8.9 trillion).

Sustainable finance is growing in prominence in India too, despite economic headwinds. Between January and March 2020, foreign investors into India sold assets worth USD 18.5 billion. However, ESG funds received inflows worth USD 500 million. According to Morningstar Research, despite net outflows from India in Q2, ESG funds retained positive, albeit small inflows.

The supply of sustainable capital is misaligned with demand. Despite the rapid growth of the pool of sustainable capital, evidence of this capital flowing to real economy projects remains subdued. Analysis by leading investors through the Climate Finance Leadership Initiative suggests that misalignment of investor expectations with local policy environments creates frictions that constrain investment. Overcoming these challenges and creating an enabling environment are key to unlocking capital.

The rise of sustainable finance presents India with a unique opportunity to close its infrastructure financing gap. Estimates suggest that India faces a financing gap of between USD 75-200 billion per year. In a low yield environment and investors developing an increasing taste for sustainability, India could offer an attractive destination for sustainable capital. However, this would require focused efforts to attract sustainable investments into Indian projects.

India should develop a robust sustainable finance policy framework. This will enable India to address this financing gap with domestic and international capital. Based on the international best practice, India's approach to sustainable finance should draw on three pillars. The private sector, through the India-UK Sustainable Finance Working Group, is keen to support the Government to develop this framework and roadmap.

1. Long term decarbonisation and sustainability targets
2. Structured efforts to green the financial system to account for climate risk
3. Policy changes to incentivise capital towards sustainable projects

India's global renewable energy leadership highlights how to succeed. Average annual financial flows in the renewable energy sector have increased from $1-2.5 billion per year between 2005-2012 to $10 billion per year between 2013-2017. Lessons from this success, particularly clear long-term targets, an enabling policy environment, and close public-private collaboration, offer a repeatable model to attract more sustainable capital to close the infrastructure financing gap.

The India-UK Sustainable Finance Working Group was set up to increase flows of sustainable finance, particularly into Indian infrastructure. Since inception, the Working Group has focused on identifying barriers to investment and practical solutions to overcome these. Three subgroups have been formed to deliver the overarching objective of mobilising sustainable finance into India.

Drawing on international best practice, these Subgroups have each contributed a chapter to this report. The three areas of focus are:

- Clear and consistent sustainable finance definitions: Developing a sustainable finance taxonomy is a priority for many governments seeking to scale sustainable finance. **Chapter 2** sets out considerations for a phased approach to develop an Indian taxonomy. **Annex 2, Annex 3,** and **Annex 4,** compiled by the Sub-Working Group set out a mapping of a potential sustainable finance taxonomy, considerations and processes to develop such a taxonomy, and an overview of existing policy initiatives.
- Mobilising domestic capital: There is significant potential to leverage India's domestic savings and institutional capital to invest in sustainable infrastructure. **Chapter 3** sets out concrete suggestions the working group can progress to unlock this untapped potential. **Chapter 5** compiled by the Sub-Working Group sets out 21 related impediments to domestic capital mobilisation and maps potential mitigations.
- Attracting international capital: International investors remain highly interested in investing in India. However, frictions and challenges persist that increase the cost of capital for Indian projects. **Chapter 4** sets out a program of analysis for the Working Group to explore how Indian projects can capture a growing share of international sustainable finance flows. **Annex 5** compiled by the Sub-Working Group provides a detailed mapping of sustainable finance instruments and comments on their potential applicability in India.

SHORT TERM ACTIONS TO CATALYSE INVESTMENT

The Working Group recognises that it will take time for a robust sustainable finance framework to develop and embed in India. This development process will be fundamental to future market growth. However, in light of the current economic context, there is a need to accelerate private investment over a shorter timeframe.

The Working Group has identified ten short term actions to accelerate flows of sustainable finance into India. In selecting these actions, due consideration was given to efforts that would unlock capital for immediate investment, support the economic recovery, and provide building blocks for India's long-term infrastructure investment ambitions. Via the three Sub-Working Groups, these proposals will be developed for consideration by both governments.

This table of action breaks down the details for implementing each short-term proposal submitted by the Working Group, indicating the participants involved to take this forward and timeframe of application.

Key for timeframes:

Short-term 2021-2022

Medium-term 2023-2025

Recommendations	Action Required by:	Timeframe
Sub-Group on Taxonomy		
1.Signalling intent on a long-term sustainable finance taxonomy for India (p18). *The Government of India needs to signal India's objective of developing a taxonomy and indicate that this will replace SEBI's green bond guidelines when completed.* *Adopting a phased approach to develop the taxonomy could allow the Government to move quickly in priority areas. The Government could begin with a narrower taxonomy that covers a few priority sectors and expand the scope over time.* *Regardless of the Government's chosen approach, there needs to be an effective set of criteria to screen activities or technologies that should be included in the taxonomy.* **This would need to tackle key considerations including:** *a. Alignment with existing international best practice to link local financing needs across sectors with*	SEBI, MoF, MoEFCC	Short-term (2021-22); Signal intent Medium-term (2023-25); Development of taxonomy

Recommendations	Action Required by:	Timeframe
international capital *b.Aligning domestic capital and investor base to create and unlock demand for sustainable activities across sectors* *c.Clearly set out the conceptual framework for taxonomy with focus on green transition, adaptation and resilience objectives with net positive outcomes for people, especially those at the risk of being left behind* *d.Take a phased approach for sectors to deliver clear classifications in green and transition categories* *e.Employ best practice approaches to consultation and uptake for the taxonomy*		
2. Adapt SEBI green bond guidelines to provide investors clarity while a taxonomy is developed (p24) *Launched in 2017, these guidelines are a useful first step towards defining green activities. The Government/SEBI can tighten the green definitions under the green bond guidelines as an interim measure that will provide greater clarity to investors.* *This could recognise unambiguously green projects and would facilitate small regulatory tweaks that could kick-start the sustainable finance market.*	SEBI, MoF	→
3. Develop market guidance on climate risk and disclosures consistent with international best practice (p19) *Using best-practice from existing sustainable-related international frameworks, including the EU and CBI, to support develop a market guidance on climate risk and disclosures.* *Structured efforts are needed to green the financial system to account for climate risk and support develop robust market guidance. This proposal argues for a smart and effective approach that aligns itself internationally and outlines a way for financial institutions to strengthen their public climate-related financial disclosures, which firms can then use to develop their own approach.*	MoF, MoEFCC, Public and private sector financial institutions	→
Sub-Group on Mobilising Domestic Capital		
4. Feasibility study for a Green Infrastructure Investment Trust (InvITs) (p27) *InvITs have not yet gained wide-scale uptake in India. There are currently seven InvITs, two of which are publicly listed, and all regulated by SEBI.* *The Working Group will undertake a review of the current barriers facing InvITs and present findings to the UK and Indian Governments. This would address current barriers facing InvITs, lessons from the success of green yieldcos in the UK, and market demand for a pilot fund in India. The review would also explore reforms that could enable the use of InvITs to increase funding into sustainable infrastructure.*	SEBI	→

Recommendations	Action Required by:	Timeframe
5. Evaluate the feasibility of a voluntary sustainability sub-target under Priority Sector Lending (PSL) (p28) *The Working Group will assess the potential investment changes to PSL could unlock and present its findings to the UK and Indian Governments. The Working Group will look at the potential of including a green/sustainable sub-target in addition to reviewing the current caps on how much can be lent to a particular project. This could apply to projects that have received independent certification of sustainability credentials.* *Changes to the PSL targets could increase funding for sustainable projects. The first-best solution would be for the Government of India to gradually relax PSL targets over time. This will allow capital to be allocated more efficiently based on growth opportunities, and a bank's internal risk assessment of the viability and bankability of a particular project. The Working Group recognises that this may not be feasible, and there are reasons why the Government may wish to direct funding to certain sectors.*	RBI, MoF, Commercial Banks	→ UKISFWG assessment on PSL. ⇒ Government / RBI implementation of changes to PSL targets
6. Comparative analysis of domestic savings into long-term infrastructure (Chapter 5). *There is significant potential to leverage India's domestic savings and institutional capital to invest in sustainable infrastructure. India's personal savings market is valued at $5.5 trillion[1]. With the inability of large pension, retiral and insurance funds to invest in sustainability projects, there is scope for the Government of India to direct a share of its domestic savings towards sustainable infrastructure.* *The Working Group can draw upon the experience of the pooling of UK Local Authority Pension Schemes, CDPQ, and other international examples to help inform the Government's thinking in this space.*	SEBI, MoF, India's Pension funds including the Employees' Provident Fund Organisation (EPFO) and National Pension Service (NPS	→
7. Assess demand-side factors that make it difficult for borrowers to raise sustainable finance, and the underlying factors that raise the cost of finance (Chapter 5). *The Working Group has produced a detailed analysis of the impediments that restrict borrowers from raising sustainable finance, highlighted in Chapter 5.* *The Government, with the regulators, could further review this analysis and compile a list of the demand-side barriers issuers face when opting for sustainable finance, and indicate the mitigation needed to remove them. This would explore how the cost of sustainable capital could be lowered in India.*	MoF, Consultation with Financial Institutions/ issuers	→
Sub-Group on Attracting International Capital		
8. Develop a proposal on ways to reduce hedging costs (p32) *The Working Group will develop a proposal for the two governments on ways to reduce hedging costs. This review will assess the range of barriers facing international*	RBI, MoF, consultation to financial institutions and international investors	→

[1]Internal analysis by the Working Group.

Recommendations	Action Required by:	Timeframe
investors and possible solutions, including the role of Green Debt Funds in addressing the current market failures inhibiting sustainable finance.		
9. Accelerate sustainable infrastructure investment via ECB route (p33) *External Commercial Borrowing (ECB) offers a route for residential entities to raise finance overseas. Funds raised through this route need to be conform to certain guidelines set by the RBI, such as minimum maturity and end-use requirements (RBI). Current ECB regulations have stipulations which need to be relooked to allow reasonable flow of foreign capital into sustainability projects.* *The Government could run a trial for a single sector before testing the viability of expanding the sectoral scope. As mentioned above, the SEBI green bond guidelines with tighter green definitions could be used on an interim basis until the sustainable finance taxonomy is ready.* *The Working Group will build on its initial assessment and present a fuller review of possible options to the UK and Indian Governments. This will focus on the following areas: Relax minimum maturity requirements, relax end-use restrictions, Waive withholding tax and Preferential treatment of Cross-border borrowings.*	RBI, MoF	→ UKISFWG detailed assessment on ECB → Government implementation of options
10. Explore how to promote sustainable investment through FPI & FDI rules (p33) *Amendment to measures under the Foreign Portfolio Investment (FPI) and FDI route can provide an additional incentive to invest in sustainable projects. The Government could consider adjustments to the Voluntary Retention Route (VRR), which is the only viable option under the FPI set of rules for an Indian subsidiary to raise finance from a parent company. These could include increasing the overall limit to raise finance from Indian subsidiaries from their offshore parents for sustainable projects, permitting VRR investments into unlisted and unrated non-convertible debentures (NCD) for projects that have an independent green certification and reduction in minimum maturity requirements and a waiver of withholding tax.* *For FDI, measures could be implemented to allow investments in optionally convertible debentures (OCDs) and optionally convertible preference shares (OCPSs) under the FCVI route.*	SEBI, MoF	→ Government implementation

LONG TERM ACTIONS TO CATALYSE INVESTMENT

The **Subgroup on Taxonomy, Policy, and Regulation** has a long-term goal to ensure India's sustainable finance policy framework is market-leading and positions India as a market for sustainable finance taxonomy, disclosures, and climate-related financial risk management.

The **Subgroup on Domestic Capital** has a long-term goal to ensure India makes the most of growing domestic savings and institutional capital for sustainable development. This will require structured efforts to unlock India's capital base, drawing on international best practice to provide innovative debt and equity solutions, and addressing demand-side incentives for sustainable finance.

The **Subgroup on International Capital** has a long-term goal to ensure India captures a growing share of global sustainable finance flows. This will require enhancing India's enabling environment for sustainable investment and addressing risk perceptions, development of India's bond market, and deepening of long tenor and foreign exchange markets.

CHAPTER 1

HOW CAN FINANCE SUPPORT INDIA'S SUSTAINABLE RECOVERY?

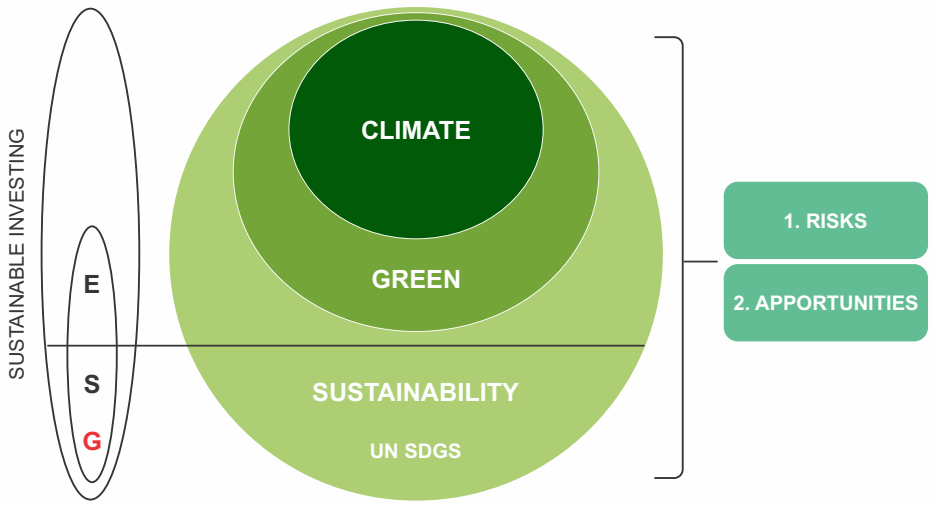
BACKGROUND

The India-UK Sustainable Finance Working Group (henceforth Working Group) was set up in May 2019 and is working towards scaling financial flows to meet India's ambitious sustainable targets. The Working Group brings together both capital suppliers and consumers. Its first report, , Supercharging Green Finance in India, focused on barriers to investment in sustainable infrastructure and recommended a number of areas for further exploration.

The Working Group had prepared a discussion paper for the Finance Ministers ahead of the 10th India-UK Economic and Financial Dialogue. This discussion paper highlighted possible long-term approaches to accelerate investment into sustainable projects in India. It also included a few immediate areas for consideration, and identified areas for further work where the Working Group will aim to report back to the UK and Indian Governments over the next 12 months.

The remit of the Working Group covers a broad definition of sustainable finance. However, the green and climate sub-groups of sustainable finance have more developed international comparisons and have richer data sets to draw upon. Therefore, in some areas, the immediate focus of the Working Group falls on these issues. However, as recent developments across Europe make clear[2], the framework and approach of green issues can be applied to social projects and the wider sustainability agenda (See Figure 1).

Figure 1: Sustainable Investing



Source: UK-China Green Finance Taskforce

[2]For example, the European Commission issued a €17bn social bond on 21 October 2020 which was more than 13 times oversubscribed. Several groups are also looking to develop social taxonomies to classify investments in this theatre.

SUSTAINABLE FINANCE CAN HELP CLOSE INDIA'S INFRASTRUCTURE FINANCING GAP

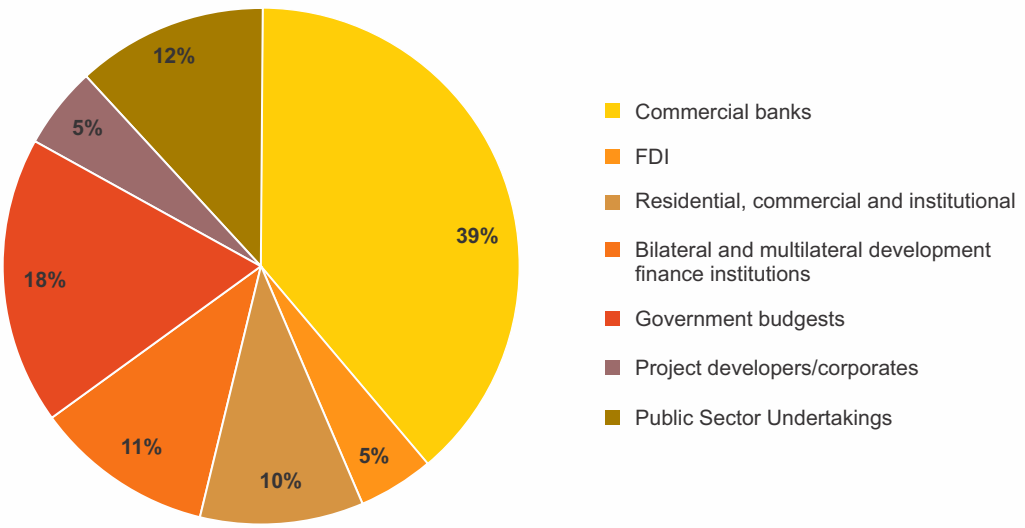
India has set ambitious climate change targets as part of its NDC. India has committed to reduce the emission intensity of its GDP by 33%-35% by 2030 compared to 2005 levels. India has also set specific sector targets: non-fossil fuel energy sources to account for 40% of installed power capacity by 2030, and create a carbon sink of 2.5-3 billion tonnes of CO2 through additional forest and tree cover by 2030. In September 2019, India increased its renewable energy ambition and announced a target of 450 GW of installed capacity by 2030, one of the most ambitious targets in the world.

Covid-19 has had a huge impact on the Indian economy. The Indian economy was slowing down before the pandemic. The economy grew by 3.1% in the January-March quarter, the slowest rate of growth in 17 years. Covid-19 had a large impact on the Indian economy, and the future recovery remains uncertain. India's economy shrank by 23.9% between the April-June quarter in 2020.

Gross investment was slowing before the pandemic. Average growth in gross fixed capital formation averaged 8% in FY10-20 compared to 15% in the previous decade (Bloomberg, 2020). According to the World Bank, India's investment as a percentage of GDP has declined from 35% in 2007 to 27% in 2019.

India's average green finance investment is around USD 20 billion per year. India invested USD 17 billion in 2017 and USD 21 billion in 2018. Government budgets and public sector companies account for around 30% of funding. Commercial banks account for the largest source of private sector funding at 40% (CPI, 2020). Figure 2 provides a breakdown of green finance by source.

Figure 2: Breakdown of green finance investment by source



Source: CPI (2020): Landscape of green finance in India.

Power generation accounted for 80% of green investment. India has made huge progress in mobilising investment to meet its sustainability goals, particularly in the renewable energy sector. Average annual financial flows in the renewable energy sector have increased from $1-2.5 billion per year between 2005-2012 to $10 billion per year between 2013-2017. FDI in the renewable energy sector crossed USD 1 billion in 2018 although it still accounts for only 1% of total FDI flows into the country (CPI, 2020). However, sectors beyond the power sector have found it more difficult to attract investment.

India needs to invest at least USD 95-250 billion in climate change mitigation per year. Investment estimates vary significantly. The Observer Research Foundation estimate the investment required for climate change mitigation is between USD 95 billion and USD 125 billion per year; a cumulative investment of USD 1.6 trillion between 2020 and 2033 (ORF, 2020). India's NDC estimated that the country will need to invest USD 2.5 trillion between 2015 and 2030, or around USD 170 billion per year. IFC analysis estimates higher levels of required investment. They estimate that the investment opportunity in India is USD 3.1 trillion between 2018 and 2030, although the study might have used a broader definition of climate investments. Table 1 provides a breakdown of investment needs by sector

Table 1: Investment needs by sector

Sector/End-use	Cumulative investment needed by 2030 (USD billions)
Energy	404 (2018-30)
Transport - EVs	667 (2018-30)
Green buildings	1,400
Climate resilient cities	128
Waste management	11 (2018-30)
Pollution abatement	50
Afforestation	140
Sustainable agriculture	194

Source: IFC

India faces a financing gap of between USD 75-200 billion per year. Investment estimates vary widely across studies. However, it is clear that India faces a huge financing gap, and the public and private sectors will need to work in partnership to ramp up investment. India's fiscal capacity is around USD 300 billion per year, which suggests that private finance will play a significant role (LSE Sustainable Finance Leadership Series, 2020). The increase in renewable energy investment has been driven by clear regulations, long-term targets and a supportive policy environment. A similarly robust response in other sectors (e.g. transport, real estate) will provide greater clarity to investors. Supporting governments to develop this sectoral approach has become recent focus for investor groups (CFLI, Impax).

The financing gap yawns wider for India's broader sustainable development. According to Standard Chartered Bank's SDG Opportunity 2030 Map, currently, 93% of the population have access to electricity in India (Jan 2020). Considering projected GDP per capita and population growth, the

investment requirement in India to achieve the targets set by the country for SDG 7: Affordable and Clean Energy by 2030 is USD 1.6 trillion. Under SDG 9: Industry, Innovation and Infrastructure, the Standard Chartered SDG Map estimates that investment required in India till 2030 to achieve the digital access targets is USD 377.4 billion. The report also says that under the same SDG, the total investment required for availability of quality, reliable, sustainable and resilient transport infrastructure is USD 505.5 billion. The KPMG report estimates that under sustainable transport, batteries will require investment to the tune of USD 300 bn (2017-30). Green residential sector will need USD 1.25 trillion by 2030, pollution abatement nearly USD 4 billion per annum, and afforestation nearly INR 1 lakh per annum. The Standard Chartered report also mentions that the total investment needed to achieve SDG 6: Clean water and sanitation is estimated to be USD 192.2 billion.

A robust policy framework will help India plug the financing gap from both domestic and international sources and support a sustainable recovery. India has made excellent progress in decarbonising its power sector and ramping up renewable energy capacity. Going forward there is a significant opportunity for India to 'build back better' and harness investment appetite for a sustainable recovery. This will help both 'deepen' capital flows i.e. attract international investors with large pools of capital at a lower risk price; and 'widen' capital flows i.e. expand the types of investors, the range of financial products, and sectoral coverage. Based on the international best practice, India's approach to sustainable finance could draw on three pillars:

- **Long-term targets:** Most countries have anchored their sustainability objectives in long term policy objectives. For example, sustainable finance taxonomies are grounded in a long-term decarbonisation target. The time period for such targets usually extends beyond a country's NDC, and typically covers the period to 2050. For many large countries and big polluters the target is net-zero by 2050, sometimes passed into legislation (e.g. the UK's Climate Change Act); but other countries have targets that are aligned with their own social, development, and growth priorities (for example Japan has declared net zero by 2050, China has set a 2060 target). Working backwards from these long-term targets, countries have developed decarbonisation pathways, often at a sector level, along with interim milestones e.g. emission reductions by 2025, 2030, 2040. These interim milestones then provide policy certainty and objectives that enable investment. A long-term target provides a clear reference point to the financers, industry and technology developers. In addition, the government should ensure a stable and predictable policy environment that reduces country-related risks, and therefore the cost of finance.
- **Greening the financial system:** There is increasing international recognition of the need to incorporate climate and environmental risks in financial decision making. There are a range of global initiatives supporting the greening of the financial system. The Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) has over 1,440 organisation with a market capitalisation of over USD 12.5 trillion. The Principles of Responsible Investment (PRI) encourages the use of responsible investment to deliver higher returns and better manage risk. Five Indian firms have signed up to PRI, including two members of the Working Group[3]. These initiatives try to improve transparency, and provide standard templates for disclosing climate-related risks. They are also driving the integration of sustainability into credit ratings, market research, and risk management frameworks. India should work towards aligning national roadmaps and disclosure norms to global best practices.
- **Policy changes to incentivise capital towards sustainable projects:** There are a number of actions that countries can take to reorient their financial systems to accelerate investments into sustainable projects, including:

[3]SBI Mutual Fund and ECube

- **Taxonomies:** Clear definitions for green, sustainable and transition technologies/ activities/ projects have a crucial role to play in guiding decision makers and providing greater clarity to investors. A sector scoping for sustainable finance taxonomy for India developed by FICCI is provided in Annex 2.
- **Overcoming market barriers:** Frictions and barriers persist in new markets. The UK's experience of the Green Finance Institute suggests that these barriers exist at sector level and that collaboration between the public and private sectors is essential to mobilising capital at scale. For example, financing the decarbonisation of the UK's building stock has been the sole focus for the GFI's Coalition for the Energy Efficiency of Buildings.
- **Improving access to finance:** There is scope to reduce the cost of borrowing and create a more supportive environment for new financial products that meet the needs of borrowers. E.g. Green Infrastructure Investment Trusts, hybrid instruments that allow Indian companies to share project risks with foreign investors while retaining operational control.
- **Green labels and standards for financial products:** Standards and labels for sustainable financial products help retain trust in the emerging sustainable financial sector. It also provides easier access to investors seeking these products.
- **Preferential treatment of Cross-border borrowings:** Cross-border borrowings which are under the sustainable finance taxonomy definitions should be given a preferential treatment from a cross-border regulation perspective, especially with reference to end-use, pricing and tenor.

The concept of a just transition should be at the centre of India's long-term strategy. A just transition is about maximising the opportunities from a transition to a sustainable, resilient economy while minimising impacts on communities, workers and regions. This will involve a robust policy response to support communities that might lose out from a transition to a low-carbon economy (e.g. workers in fossil fuel industries) and provide them with them with the skills needed to transition to new, emerging sectors (e.g. renewables).

The Working Group has carried out an initial assessment of the ways in which capital can be directed towards sustainable projects. It sets out a set of overarching considerations for developing a sustainable finance taxonomy and highlights how other countries have developed their taxonomies. The Working Group has initial focussed on climate mitigation and adaptation aspects of a taxonomy because there are more international examples to draw upon, and a more developed evidence base. However, the principles set out in this paper can be used to develop social and wider sustainability considerations as well. FICCI carried out an initial sector scoping for a sustainable finance taxonomy with ESG and SDG mapping is provided in Annex 2. In addition, it identifies some of the current barriers to mobilising domestic and international capital, and offers some suggestions on how existing policies can be tweaked to reduce the cost of capital for sustainable projects, and begin to better align parts of the financial system with sustainability goals.

The Government of India could draw upon international best practice to establish the institutional architecture to support the low-carbon transition. Delivering a sustainable future requires deeper cooperation and coordination between the public and private spheres. Countries have developed detailed sustainable finance strategies by bringing the public and private sectors together to address common challenges. For example, the UK's Green Finance Strategy was preceded by the public-private Green Finance Taskforce, the EU's Sustainable Finance Action Plan was a result of the High-Level Expert Group on Sustainable Finance. There are existing groups that the Ministry of Finance could draw upon by providing them with a stronger sustainable finance mandate.

CHAPTER 2

TOWARDS AN INDIAN SUSTAINABLE FINANCE TAXONOMY

PREFACE

Being home to 18% of the world's population (34% of which are millennials) and amongst the most vulnerable countries to climate change, India is uniquely positioned to leverage the vast opportunities presented by the sustainable finance market. Estimates indicate that the country needs at least USD 2.5 trillion to meet its NDCs and around USD 4.5 trillion to achieve its SDGs by 2030. Combined with India's goal of becoming a USD 5 trillion economy by 2024, this lays ground for a huge demand for finance in sectors that are environmentally sustainable, socially responsible and economically viable. Considering the ever-increasing impacts of climate change, transitioning to a low carbon and a more resilient economy rapidly presents the best chance of charting a development transformation that is stable, inclusive, green and resilient.

In this context, I have been honoured to work with some of the best minds in India as well as UK, both from the potential suppliers and buyers of sustainable finance under the umbrella of the India-UK Sustainable Finance Working Group. The needs and the challenges involved in unlocking the potential have already been quite clearly illustrated in the previous paper 'Untapped Potential: Supercharging Green Finance in India' released by the Group in November 2019. The current paper builds on to the discussion, addresses the challenges and endeavours to provide suggestions on the steps that could help kickstart the unlocking of the huge potential in the country.

Leading the Sub-Working Group on Taxonomy, Policy and Regulation (SWG1) has been an absolute delight, and a huge responsibility, since the SWG's work would essentially be the stepping-stone to the very definition of what should sustainable finance mean within the economy. Conducive policy and regulatory frameworks provide the fabric on which the sustainable finance taxonomy would lay its design for India's trajectory in the coming times. The unique challenges and priorities of the Indian economy require its taxonomy to be tailored to the Indian needs, while simultaneously being aligned to global developments and trends. This represents a big challenge as it not only means collecting and stitching together the multiple definitions, designs and interpretations already available in the county, but also to synthesise the larger taxonomical derivations applicable for finance while taking cues from the international experiences. The SWG1 has worked tirelessly in this direction, to develop a common understanding of an approach towards development of an Indian Taxonomy. The multiple brain-storming sessions that have led to the development of this paper, stem from deep involvement, experience and expertise that the SWG members possess.

While responsible investment is still gaining traction from Indian investors, and the current share of Indian investments in the global sustainable investment pie is miniscule, we expect a sharp increase in its uptake in the coming times. The SWG1 aims at addressing this gap with the development of framework for Indian Taxonomy. India's commitments to the Paris Climate Goals and Sustainable Development Goals along with an evolving and conducive policy framework, provides a step in the right direction which could be leveraged to embark on a taxonomic approach.

The UK has always been a strong partner in India's growth, by being one of the largest investors in the country. This collaboration with UK on sustainable finance will not only help us draw from their existing strengths and achievements but will also facilitate a mutual learning of a variety of challenges and opportunities available in the Indian context. UK's leadership in sustainable finance, clubbed with India's ambitious commitments and huge opportunities, may prove to be timely in successfully translating this work into fruitful actions. The SWG1 has the right strength, ideas, expertise and experience in spearheading this work and helping the Indian Government to bring sustainable finance to the fore in confluence with the national priorities. I hope the work of this SWG will be integral to setting India's direction and prove to be a facilitator and partner for creating a robust, thriving and evolving sustainable finance ecosystem within the country.

Navneet Munot
Lead, Sub-Working Group on Taxonomy, Policy, and Regulation
Chief Investment Officer, SBI Mutual Fund

KEY CONSIDERATIONS

Taxonomies are a proven tool to reorient capital towards sustainable activities. Principles, such as ICMA Green Bonds Principles or the SEBI Green Bond Disclosure Guidelines, typically set out guidelines for market stakeholders. Taxonomies go much further in terms of defining green, sustainable and transition activities at a detailed sector and sub-sector level. It also screens the inclusion of activities based on certain thresholds informed by the scientific evidence. Taxonomies therefore provide clarity, confidence and transparency to financial market participants and other stakeholders. In addition, it makes it easier to reorient capital towards sustainable projects by designing policy interventions and green products linked to the taxonomy.

It is important to outline a clear purpose for the taxonomy and how it fits in with a country's wider climate change and environment strategy. By setting out clear definitions and providing greater clarity, a comprehensive sustainable finance taxonomy can help the Government achieve its long-term climate and environment targets. In theory, a taxonomy should help mobilise both domestic and international investment. In practice, the inclusion of some technologies could create a trade-off between mobilising international and domestic capital. Clearly communicating the rationale for including different technologies, and the role they will play in helping India transition to a low-carbon economy could help reconcile different points of view and bolster investor confidence.

A well-designed sustainable finance taxonomy can deliver several benefits. These include:

- **Reduce transaction costs:** Clear definitions and a consistent classification system reduce the costs of comparing different investments. This is likely to reduce the cost of finance and expand the number of green financial products.
- **Avoid greenwashing:** Greenwashing, when an activity that is not green is labelled green, is a real risk when activities are not clearly defined. It undermines trust in the emerging sustainable finance market, and for companies there can be significant reputational risks. Clear and consistent definitions can help companies raise green funding with greater confidence.
- **Facilitate the development of a pipeline of green projects:** Investors find it difficult to justify the fixed costs for one-off investments. A green project pipeline provides greater certainty that follow-on projects will be available, and investors are more likely to invest in the fixed costs associated with investing in sustainable infrastructure (e.g. capacity building, risk systems). The lack of a green project pipeline can be a bottleneck to mainstreaming sustainable finance.
- **Kick-start a green recovery:** Clear definitions can help the Government include a green element to its recovery package and help India emerge as a strong global player in climate change and environment. Several other countries have introduced green stimulus measures e.g. a third of the EU stimulus package (USD 750 billion) is directed at green activities, and the UK announced a GBP 3 billion energy efficiency retrofit programme that is expected to create 140,000 jobs. Among emerging economies, Columbia, Morocco and Nigeria are some of the countries that have introduced green measures.

A sustainable finance taxonomy should be grounded in a clear set of environmental objectives. This could be a combination of climate (both mitigation and adaptation) and non-climate objectives (e.g. pollution, biodiversity, protection of ecosystems)[4] . The following principles could help define the objectives:

[4] The EU's taxonomy included six environmental objectives: climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems.

- Goals should be measurable and designed in a way that can be easily evaluated in the future.
- Adopt a scientific approach that ensures clear standards for various sectors and activities.
- Comply with the Paris Agreement, NDCs, national plans and policies.
- Aim to increase ambitions over time to go beyond minimum compliance with existing thresholds.
- Align with the Sustainable Development Goals.

Transition technologies and activities need to be clearly defined. To achieve ambitious climate change goals, countries need transition pathways that have clear end goals and are consistent with climate science. According to the Climate Bonds Initiative, transition technologies are defined as those investments that make a substantial contribution to halving global emissions by 2030, and reaching net-zero by 2050 but do not have a long-term role to play; and technologies that have a long-term role to play but the path to net-zero is currently uncertain (CBI, 2020). This is highly pertinent to sectors such as steel, cement, metals and mining etc fall in the 'hard to abate' category. Transition technologies need to be treated in a manner that is consistent with the overarching objective of attracting international capital.

The taxonomy must go beyond climate, and embrace a just transition, resilience, and social objectives. While climate mitigation and reduction in GHG emissions will determine how liveable the future be and which activities will survive, die or thrive, preparing people and industries to adapt to the effects of climate change already occurring cannot be overlooked. For India this is a key concern owing to its exposure and vulnerability to climate change. This has to be understood in terms of not only climate related adaptation and resilience, but also social and economic resilience linked to it. For example, it is important that green transition does not dislocate or deplete jobs and livelihoods and provides for more and better options. Refer to Annex 2 for a detailed sector scoping for sustainable finance taxonomy for India (source: FICCI)

Environmentally friendly investments can boost growth and employment at least as well as harmful or neutral programmes. Studies done by the ILO and more recently in the US establish the multiplier effects of investments made in clean energy and jobs created as opposed to those in the fossil fuel backed energy projects. Take it to sectors like agriculture on which more than half of Indians depend for their livelihoods, climate related vagaries and disasters will exacerbate internal displacement, migration, agrarian distress and unsustainable urbanisation. Sustainable or climate resilient agriculture on the other hand has shown that it improves soil health, water conservation, quality of crops and farmers' incomes. Investing in such technologies and practices thus increases the adaptive capacities of communities alongside creating environmentally and economically positive outcomes for people.

An Indian taxonomy thus needs to place adaptation and resilience as important filters for deciding sustainable activities. Globally, the stress has been on mitigation as a first step. In 2019, Climate Bonds Initiative released adaptation and resilience principles which can be a suitable guide to build the conceptual and practical boundaries for resilient investments. Additional and relevant aspects for 'just transition' (i.e. people are not worse off, benefits of green transition are shared widely), which go beyond these principles, should serve well in determining the appropriate criteria.

The Working Group can draw on existing work to accelerate progress towards reconciling environmental objectives with wider sustainability considerations. For example, the CDC, the National Institute of Public Finance and Policy (NIPFP), LSE and the Observer Research Foundation are developing just transition finance roadmaps within the local context to devise clear pathways to unlock investment. The project aims to signal where future investments and financing are needed to deliver a

just transition to net zero emissions, and how these investments and financing should be undertaken to maximise social and economic benefits, particularly for workers and communities. The desired outcome is to mobilise investment and financing flows into and within India that are aligned with the just transition and support an economic recovery that is inclusive, green and resilient. The first phase - design and early implementation - is expected to run until March 2021. It is expected that the consortium will continue to work on this until COP26 with the aim of launching finalised sustainable finance roadmaps around that time.

There are different approaches that countries can adopt when developing a taxonomy. Countries have adopted different approaches, but over the long-term there is likely to be some convergence towards a globally acceptable set of standards. Emerging economies, such as India, have a choice: to try to align themselves with global standards to accelerate the inflow of foreign capital; or to create a unique taxonomy from first principles. A middle road could blend the two while adding transition technologies where necessary to reflect the country's unique decarbonisation pathway.

A whole of economy transition can only reach scale and speed with a coordinated and explicit taxonomic architecture led by government. International trend is also towards creating a pathway to mandatory requirements for adoption of taxonomies. This brief argues for a smart and effective approach that aligns itself internationally to accelerate the inflow of capital and adds further where necessary, such as on transition and resilience, and outlines a way for domestic and international finance to flow to priority segments of the real economy.

The selected approach will increase investor confidence, effectively balance the interests of international and domestic investors, and should be arrived at through a consultation process. The process for designing and developing the taxonomy is as important as the technical and practical soundness of the taxonomy. At the minimum, it needs to be consultative, inclusive (multi stakeholder), transparent, and time bound. By way of illustration to glean the good practice on process, **Annex 2** presents descriptions of two national and two international processes.

The possible approaches are summarised in the Table 2.

Table 2: Different approaches to developing a taxonomy

Taxonomy	Description
Single transition taxonomy	A single transition taxonomy could include a set of green technologies/activities that are closely aligned with international standards (e.g. CBI, EU) along with a set of transition technologies that are necessary for a country's transition to a low-carbon economy. It should also set a date by which the country will move to a green taxonomy to provide long-term clarity.
Single sustainable finance taxonomy	While a single sustainable finance taxonomy closely aligned with international standards is easy for international investors to follow, it may not necessarily reflect the circumstances of emerging economies. However, emerging economies should aim to move towards a sustainable taxonomy over the medium-term.
Two taxonomies: 1 green + 1 transition	Provides a clear distinction between green and transition activities. However, China's experience suggests this is likely to create confusion and could deter international investment. This is mostly because of liquidity challenges in the secondary market.

Regardless of the Government's chosen approach, there needs to be an effective set of criteria to screen activities or technologies that should be included in the taxonomy. There are two possible approaches:

- **Screening criteria:** Screening can be based on a set of clearly defined criteria that help decide whether a particular activity qualifies to be included in the taxonomy. As far as possible, the criteria should be binary e.g. tailpipe emissions of vehicles limit of 50 g CO2/km or power sector emissions of 100g/kWh. In cases where a binary approach is not possible, the taxonomy could set out best practice e.g. encourage the adoption of best practices in agriculture - drip irrigation. The EU taxonomy has adopted this approach of screening activities based on binary thresholds and setting out best practices.
- **A list of green activities:** The People's Bank of China (PBoC) adopted a different approach. Instead of thresholds, it set out a list of activities that are considered 'green'. In theory, it is possible for the two approaches to converge without conflict. However, in practice this may not yet be the case. It is conceptually possible for example, that an activity which improves resource conservation from a natural capital perspective could be causing harm to climate mitigation or adaptation objectives. To the best of our knowledge, such activities do not currently exist, but a possible example is water desalination facilities that are powered exclusively by coal or gas fired generation. The omission of 'do no significant harm' thresholds in the PBoC Catalogue could allow for such an activity.

Adopting a phased approach could allow the Government to move quickly in priority areas. The Government could begin with a narrower taxonomy that covers a few priority sectors and expand the scope over time. The selection of priority sectors should be based on clear, transparent criteria, for example:

- Sectors could be selected based on their potential to contribute to decarbonisation e.g. current GHG emissions and GHG mitigation potential.
- Sectors could also be selected based on their contribution to wider government objectives e.g. low-carbon mobility; enabling activities e.g. manufacture of solar panels; or transition activities e.g. copper mining.
- This can be expanded in the future to cover social investments. E.g. the EU had adopted the EU SURE Bond Framework in line with ICMA Social Bond Principles with a view to using proceeds to fund the social needs of Member States hit by the pandemic.

Time is of the essence, as while the global pie for sustainable investment is increasing, so is the competition for the share of that pie. Countries and institutions shaping the rules now are the ones who are becoming active shareholders of the change that is afoot. Box 1 gives an account of international experiences, and an analysis of their motivations to develop or adapt national or regional taxonomy. Institutional taxonomies like that of CBI have informed these developments, such as the one developed by the EU, and are also responding to the fast-evolving challenges and opportunities in sustainable finance and can serve as a basis to adapt, add or modify. Indian attempts to flesh out an approach have been limited. Private initiatives in India have attempted in the recent past to clarify the approach and this discussion brief considers the ideas postulated under that approach as well.

Box 1: International experiences of taxonomies

European Union

The European Commission launched a research project on green finance-related standards and established the High-Level Expert Group on Sustainable Finance (HLEG) in December 2016. In January 2018, the HLEG published their report: Financing a Sustainable European Economy. In March 2018, the European Commission passed the Action Plan: Financing Sustainable Growth that outlined a comprehensive strategy to mobilise private capital towards sustainable investment, enhance transparency and manage the risks of climate change and environmental degradation.

Based on ten detailed actions in the Action Plan, the European Commission proposed three legislative initiatives in May 2018 - the EU Sustainable Finance Taxonomy, sustainability-related disclosures and climate benchmarks, and ESG disclosures. This led to the establishment of the EU Technical Expert Group (EU TEG) consisting of 35 members and observers from civil society, academia, business and the finance sector; and supported by approximately 200 selected experts. Its mission was to develop a list of economic activities and environmental performance requirements to help achieve the EU's climate goals and SDGs. The EU TEG to developed screening criteria for economic activities to identify whether they provide a substantial contribution to climate change mitigation and adaptation based on NACE codes. The EU TEG also formulated the Do No Significant Harm (DNSH) criteria for the other environmental objectives.

In June 2019, the EU TEG published three reports - the EU Sustainable Finance Taxonomy, the EU Green Bond Standards and the Voluntary Low-carbon Benchmarks. These reports constituted an important part of the Action Plan, and made recommendations for a new regulatory framework for the European financial sector. The EU TEG published its final report in March 2020.

The EU Taxonomy outlines technical performance thresholds for economic activities which:

- make a substantive contribution to one of six environmental objectives: climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems;
- do no significant harm (DNSH) to the other five, where relevant; and
- meet minimum safeguards (e.g., OECD Guidelines on Multinational Enterprises and the UN Guiding Principles on Business and Human Rights).

These performance thresholds will help companies, project promoters and issuers access green financing to improve their environmental performance, as well as help identify which activities are already environmentally friendly. The EU Taxonomy is expected to help grow low-carbon sectors and decarbonise high-carbon ones.

The EU Taxonomy is a tool to help investors, companies, issuers and project promoters to navigate the transition to a low-carbon and resilient economy. It is one of the biggest strides towards helping the financial system reorient capital towards a low carbon economy. In October 2020, the EU Platform on Sustainable Finance was established to continue the work of the EU TEG. It will develop a comprehensive screening for economic activities that contribute to the other four objectives, and also set out criteria for other sectors and activities which contribute to climate change mitigation and adaptation but are not currently covered by the EU Taxonomy. It will also monitor the application and take-up of the taxonomy by financial markets.

China

While addressing climate change has been a feature of China's national policy for the past ten years, the domestic focus of green finance has previously been on reducing pollution, particularly air-

pollution. The original People's Bank of China (PBoC) catalogue includes investments in 'ultra-supercritical' coal-fired power. Ultra-supercritical coal power dramatically reduces particle pollution (i.e. air pollution) in places like Beijing, however, it only reduces CO2 emissions by around 25% compared to older coal-fired power plants. Global climate goals will need much steeper emission reductions.

The updated 2020 PBoC Catalogue excluded both coal and the production or utilisation of natural gas. It also includes hydrogen, sustainable agriculture, green consumer finance, and a host of other useful sectors like green services and manufacturing. Carbon capture and storage was also added.

The proposed change, while not yet approved, is arguably one of the most important recent developments from China, marking a milestone for global harmonisation efforts on green guidelines and criteria. Previously, different issuers used different green definitions depending on the relevant regulator (e.g. PBoC for financial institutions, the National Development and Reform Commission (NDRC) for corporates). If the proposed changes are approved, any bond can be recognised as green if it meets the criteria of 2020 PBoC Catalogue, no matter which market it is issued in or what type of bond it is.

Canada

The Ministry of Finance and the Ministry of Environment appointed an Expert Panel on Sustainable Finance in 2018. A taxonomy was one of the recommendations made by the Panel in its report in June 2019. The development of Canada's Taxonomy has been delayed after the it failed to secure the necessary support in mid-2020. The Canadian Taxonomy is expected to be aligned with the EU Taxonomy, but is also expected to provide additional guidance on how to 'transition' the Canadian economy which is heavily dependent on mining and resource extractive activities.

Columbia

Taxonomy development process is being led by the Financial Regulator (Superintendencia Financiera), with support from the Ministry of Finance, the Department of Planning, the Department of Statistics, Ministry of Environment and Sustainable development. This group forms the Supervisory Committee overseeing the Taxonomy development and is called 'La Mesa Institutional de Taxonomía Verde'. The process is based heavily on the EU Taxonomy process as it was decided that alignment with international best practice would facilitate international capital flows, particularly from EU-based investors.

South Africa

The National Treasury recommended the establishment of a Working Group to develop a sustainable finance taxonomy for the country's financial services industry.

Taxonomy by the Climate Bonds Initiative

The Climate Bonds Standard and Taxonomy provides a voluntary international standard for labelling green investment products. The Climate Bonds Standard is a labelling scheme for bonds and loans to ensure that certified products are being used to finance assets and activities which are consistent with the Paris Agreement.

The Standard is based on the Climate Bonds Taxonomy, which outlines the asset-level criteria that must be fulfilled in order for a financial product to be awarded Climate Bonds Certification. The Standard, which has now been available for over a decade, translates scientific fact into investment guidance at the economic asset-level. More than half of India's issuances are certified by CBI.

SEBI's green bond guidelines have started to move the needle in the right direction. SEBI launched its green bond guidelines in 2017. It was introduced to provide greater clarity on the issuance and disclosure requirements of green debt instruments. These guidelines are a useful first step towards defining green activities.

In the short-term GoI/SEBI can tighten current green bond guidelines to accelerate financial flows to support a sustainable recovery. There are some steps the Government of India can take that will have an immediate impact. The Government/SEBI can tighten the green definitions under the green bond guidelines as an interim measure that will provide greater clarity to investors. This could be done in two parts.

- First, signal India's commitment to develop a taxonomy and that it will replace the green bond guidelines when completed. It might also be helpful to set out timelines and scope.
- Second, Clause 2.2b (ii) can be slightly modified to reflect the fact that organisations can seek independent verification of a project based on a list of international taxonomies that are accepted by the Government (e.g. EU taxonomy, Climate Bonds Initiative). This will also open up the space for the Government, the Central Bank, and regulators to make small changes to current policies that could have an immediate impact on financial flows.

CHAPTER 3

SUGGESTIONS TO MOBILISE DOMESTIC CAPITAL

PREFACE

India faces a financing gap of between USD 75-200 billion per year. There is huge potential to mobilise domestic investment to fund India's long-term sustainability goals. Commercial banks account for 40% of green lending and most sectors with sustainable projects face constraints of bank lending. There is significant scope to widen the source of sustainable finance from capital markets and long-term funding options from pension and insurance funds.

While there is a need for foreign capital, at an overall level domestic capital is short. What is interesting is that even available domestic savings are not being channelized properly towards long-term green projects which in turn could be a big boon for savings class in the country.

The sub-working group on Domestic Capital looked at broad categories of sustainability projects, estimated investments required in these sectors and the domestic funds which can be available to channelize these into sustainability projects, and how India could be more Atma Nirbhar in above financing needs.

The sub-working group has pondered over key challenges and rigidity in regulations and has provided recommendations to attract investments in large long-term sustainability projects in India, to ensure these sustainability projects are economically viable and can operate continuously without repeated requirements of support. The sub-working group suggests ways to increase penetration of domestic capital into sustainability projects such as looking at portion of personal savings and money from the EPFO, pension and insurance funds in India, special window facility, government sponsoring of large infra leasing companies, regulations related to listing of projects, debt, stock exchanges, amending regulations for InViTs and IPOs, long-term debt, credit enhancement to channelize investments into these sectors which can provide steady returns and protect capital, deepening bond market including through models like the GIFT City.

The third sub-working group provides suggestions to amend regulations to jumpstart required funds flow into much required sustainability projects. It also proposes to the Finance Ministries of India and UK to consider setting up a permanent public-private group to explore ways of deepening and broadening domestic capital markets for sustainable investments through exchange of ideas and learnings while also proposing a Specialized Financial Institution for Sustainability Projects.

It has been an immensely rewarding exercise to work with the members of our sub-working group in an enriching deliberation followed by substantive inputs that have culminated into the chapter on Domestic Capital. At the same, the deliberations of the larger Working Group have helped to feed many of our thoughts. We feel privileged to be part of the India-UK Sustainable Finance Working Group and believe this will be an exciting journey ahead.

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Chief Executive Officer & Executive Director
Hero Future Energies

KEY CONSIDERATIONS

There is huge potential to mobilise domestic investment to fund India's long-term sustainable goals. Commercial banks account for 40% of green lending although the impacts of the pandemic could constrain bank lending going forward. There is significant scope to widen the source of green lending (e.g. by institutional investors playing a bigger role) and tap into the country's deep pools of savings. This section identifies the barriers and presents issues that the Working Group will take up over the next year.

Covid-19 is likely to exacerbate the underlying challenges facing banks and could lead to an increase in non-performing assets. In July 2020, the RBI stated that gross non-performing asset (GNPA) ratio of the scheduled commercial banks could increase from 8.5% in March 2020 to 12.5% by March 2021 under a baseline scenario, and 14.7% under a scenario where economic conditions continue to worsen. The situation is worse for public sector banks. The RBI forecasts the GNPA ratio to increase from 11.3% to 15.2% over the same period (Money Control, 2020). The pandemic has slowed the progress that banks were making towards addressing stressed assets.

There is significant potential to leverage India's domestic savings and institutional capital to invest in sustainable infrastructure. There is a huge opportunity to leverage domestic savings to invest in sustainable infrastructure. India's personal savings market is valued at $5.5 trillion[5] . In addition, there is scope for the Government of India to direct a share of its pension fund investments towards sustainable infrastructure. India has two major pension funds. In 2018, the Employees' Provident Fund Organisation (EPFO) had around 50 million members that accounted for almost 10% of the labour force. In 2018, it had assets under management of INR 11 trillion, or 6.7% of GDP. Central and state government employees invest their pensions through the National Pension Service (NPS) that had 11 million members and assets under management of INR 2 trillion, or 1.3% of GDP (Live Mint, 2018).

Current regulations may constrain the ability of large pension funds and insurance companies more than in other countries. Government regulators set guidelines that shape the investment strategies for pension funds and insurance companies e.g. by setting the share of assets under management that need to be invested in government securities or public sector companies. These mandates shape the institutional culture including the types of assets they invest in, their appetite to risk, and how they assess the value an investment. Typically, pension funds in India seek larger investments in high-rated debt (AA or above), and tend to avoid equity investments.

The challenges associated with mobilising institutional capital for green infrastructure are not unique to India. A study by the OECD found that the annual global shortfall in infrastructure investment is around USD 2.5-3 trillion, current investment remains misaligned with climate mitigation and resilience goals (OECD, 2020). In addition, across the OECD and G20, the study found that assets under management that could theoretically be channelled towards infrastructure investment are USD 11.4 trillion (out of total assets under management of USD 64.8 trillion). The gap is partly explained by the various regulatory restrictions imposed by individual countries, in particular regulations covering pension funds and insurance companies.

Phasing out restrictions over time could unlock significant pools of capital. As mentioned, India has a significant pool of savings that could strategically be directed towards building the country's sustainable infrastructure. The Government could consider relaxing these restrictions or adapting investment mandates to reflect a bigger role for sustainable investments that align with the

[5]Internal analysis by the Working Group

Government's long-term climate goals. The Working Group can draw upon the experience of the pooling of UK Local Authority Pension Schemes, CDPQ, and other international examples to help inform the Government's thinking in this space.

The Working Group will look at five specific areas. These include:

- Green Infrastructure Investment Trusts (InvITs)
- Tweaks to the Priority Sector Lending targets to include sustainability as a separate category
- Assess demand-side factors that make it difficult for borrowers (both businesses and consumers) to raise sustainable finance, and the underlying factors that raise the cost of finance.
- How other countries have leveraged domestic savings for long-term infrastructure investments (e.g. UK Pooled Pensions, CDPQ)?
- Deepening of Bond Markets (example, through the GIFT model)

The Working Group has provided an initial assessment of InvITs and PSL targets. A detailed analysis of impediments and proposed mitigations is included in Chapter 5. This analysis should form the basis of ongoing engagements with the UK and Indian Governments.

INFRASTRUCTURE INVESTMENT TRUSTS

Infrastructure Investment Trusts are a useful financial instrument to fund green infrastructure. An InvIT is like a mutual fund that allows direct investment from individual and institutional investors into infrastructure projects for a stable return. SEBI is responsible for regulating InvITs in India. InvITs have been used extensively to fund green infrastructure across OECD countries. 97% of funds held by InvITs/yieldcos are invested in green infrastructure. This accounts for around half of all green investment in the OECD and G20 countries, approximately USD 155 billion (OECD, 2020)

Investment Infrastructure Trusts can play a key role in supporting India's sustainability ambitions. Construction and operational assets have different risk profiles and appeal to different types of investors. Typically, operational assets (e.g. wind farms, power transmission and distribution infrastructure) provide stable long-term returns to institutional investors and can be sold through an InvIT structure. India's operating renewable assets are valued at USD 100 billion. This is clogging up bank and developers balance sheets. InvITs can help banks, other financial institutions, and developers to sell these operational assets to institutional investors seeking steady yields and recycle their capital into new projects.

However, InvITs have not gained much traction in India. There are only a handful of InvITs in India. InvITs benefit from a favourable tax regime e.g. tax-exempt dividend income, no capital gains tax if units are held for more than three years and sold through the stock exchange, and withholding tax of 5%. However, InvITs have not yet gained wide-scale uptake in India. There are currently seven InvITs, two of which a publicly listed. These include three InvITs in the road sector, and one each in power transmission, gas transmission and telecom towers (Live Mint, 2020)

The Working Group will undertake a review of the current barriers facing InvITs and present findings to the UK and Indian Governments. The review would also explore reforms that could enable the use of InvITs to increase funding into sustainable infrastructure. In particular, the study could explore the following issues:

- Current barriers facing InvITs in India and why their use has been relatively limited?

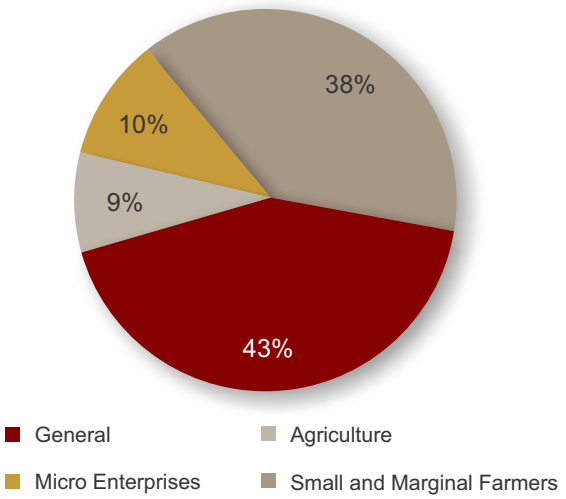
- What lessons can India learn from the success of yieldcos in the UK?
- Suggest possible short, medium and long-term reforms that increase the use of InvITs to fund India's sustainable infrastructure goals.
- Assess the feasibility of setting up a pilot.

PRIORITY SECTOR LENDING

Priority Sector Lending targets set out the amount of funding that commercial banks need to provide to selected sectors. The regulations require all commercial banks operating in the country to lend 40% of a banks adjusted net bank credit (ANBC) to certain priority sectors. Renewable energy is currently the only green sector that is included, although some projects funded in agriculture and housing could have a green element to them.

The growing market for PSL certificates demonstrates the difficulty banks face in meeting the government's targets. [6] The market for PSL certificates has ballooned from INR 50,000 crore in 2017 to INR 3.3 trillion in FY19. This has been dominated by certificates traded in the general and agriculture categories.

Figure 3: Market for PSL certificates



Source: CRISIL (2018): Securitisation resilient despite roadblocks – Changing demand-supply dynamics help navigate challenges.

Changes to the PSL targets could increase funding for sustainable projects. The first-best solution would be for the Government of India to gradually relax PSL targets over time. This will allow capital to be allocated more efficiently based on growth opportunities, and a bank's internal risk assessment of the viability and bankability of a particular project. The Working Group recognises that this may not be feasible, and there are reasons why the Government may wish to direct funding to certain sectors.

[6] If banks fail to meet their PSL targets, they can either invest the shortfall in government recognised funds or buy PSL certificates. Banks that exceed their targets can sell PSL certificates to those banks that fall short. These certificates are tradable.

The Working Group will assess the potential investments changes to PSL could unlock and present its findings to the UK and Indian Governments. The Working Group will look at two specific areas:

- **Include a green/sustainable sub-target:** The Government of India could consider including a sustainable finance sub-target within the PSL framework. This could be in the range of 2-2.5% and can be sector agnostic. It could apply to all projects that have received an independent verification on the sustainable credentials of the projects and is open to ongoing monitoring and reporting. The sub-target can be made voluntary. This will ensure that banks do not face overt pressure to lend to green projects but offers an opportunity to those banks that see the potential and struggle to meet existing PSL targets. An initial calculation, using data on the market for PSL certificates, suggests that if 1%-2.5% of the PSL market were allocated to sustainable projects, it has the potential to unlock between USD 500 million - 1 billion in new capital.
- Review current caps on how much can be lent to a particular project: At present, there are certain restrictions on how much banks can lend under PSL for a single project. E.g. banks can provide loans of up to INR 15 crore for renewable energy projects. This level is considered too low to invest in the large-scale renewable energy projects that India needs to meet its ambitious targets. Therefore, the Working Group proposes a relaxation of current caps to enable investment in larger projects that have received an independent sustainable verification. In 2019, the Ministry of New and Renewable Energy was supportive of such a move (Down to Earth, 2019).

CHAPTER 4

ACTIONS TO UNLOCK INTERNATIONAL CAPITAL

PREFACE

The second sub-working group (SWG 2) focused on barriers for attracting international capital and recommendations to widen and deepen access to international capital for sustainable projects and sectors in India. The SWG has looked at the 'Near-term Mission' and 'Long-term Vision' for increasing access to international capital. The SWG recommendations for near-term include empowering the central co-ordinator for sustainable transition and ensuring involvement of diverse agencies for taxonomy development, establishing unified statistical standards and development assessment systems by the central agency, customising and widening range of debt/equity/hybrid instruments for sustainable financing, creating ESG data disclosure standards and green tagging of assets, regulatory relaxations for sustainable finance lenders, for ECBs, FPI VRR for sustainability projects, subsidies to banks for lowering cost of capital for sustainable projects/products, and treatment of cross border borrowings under the clear definition of sustainable as per local definition as a special class, and focus on removing pricing/tenure/end use restrictions. Overall, the intent has been to look at enablers to mobilise capital from international market as also at the same develop domestic market.

The SWG 2 suggestions for long-term vision include addressing the risk perception of India's policy evolution, benchmarking, for green/sustainable issuances, creating deep, long-tenor interest and foreign currency derivative markets to hedge INR rates and currency and providing mechanisms for monitoring the implementation of sustainability projects.

I am thankful to members of my sub-working group for enriching our inputs for the paper and contributing to the larger knowledge base of the India-UK Sustainable Finance Working Group. I could not have asked for a better set of people in this group, both from India and UK, with high-quality calibre on sustainable finance. I am delighted to be part of this initiative, which I believe can play a catalytic role in leveraging private sector's practical insights and inputs towards moving the needle on sustainable finance in India.

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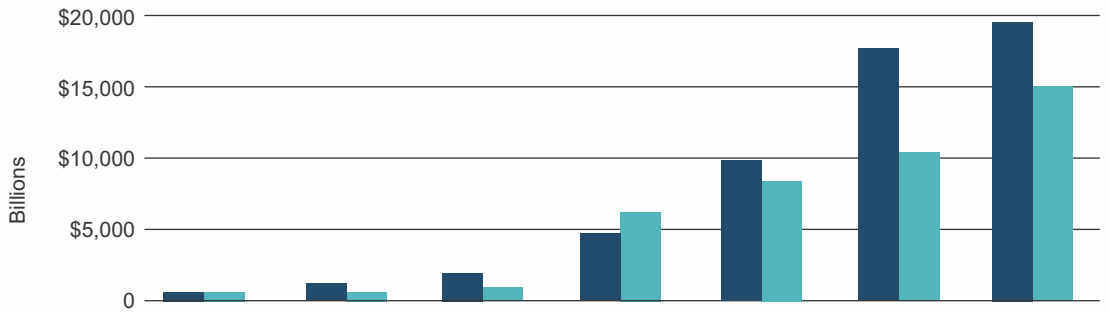
KEY CONSIDERATIONS

India has an opportunity to tap into deep pools of international capital that are searching for viable sustainable projects. The shift to ESG investments is accelerating, and likely to pick up pace over the next decade. However, a few barriers inhibit the smooth flow of international capital into sustainable infrastructure. The Working Group has carried out an initial assessment and proposes a longer term, more detailed review of barriers and potential solutions.

Globally, investment in sustainable investment products is gaining momentum (see Figure 4). Refinitiv research shows that inflows into environmental, social and governance (ESG) funds in the first quarter of 2020 were USD 36 billion. Covid-19 has accelerated a previous trend of increased financial flows into ESG products. Assets under management for ESG funds have been increasing since March 2020, and recently crossed USD 2.5 trillion.[7]

Figure 4: Global growth in sustainable investing



	Impact/ community investing	Sustainability themed investing	Positive/ best-in-class-screening	Norms-based screening	Corporate engagement and shareholder action	ESG integration	Negative/ exclusionary screening
2018	$444.26	$1,017.66	$1,841.87	$4,679.44	$9,834.59	$17,543.81	$19,770.96
2016	$248.47	$276.16	$818.01	$6,195.40	$8,385.17	$10,353.20	$15,063.57
Growth 2016-18	79%	269%	125%	-24%	17%	69%	31%
CAGR	33.7%	92.0%	50.1%	-13.1%	8.3%	30.2%	14.6%

Source: Global Sustainable Investment Alliance

The global shift towards ESG is forecasted to accelerate in the future. PwC forecast that ESG funds will outnumber conventional funds by 2025. Mutual fund assets held by investors in Europe that consider ESG factors is forecasted to increase from 15% today to 57% in 2025, amounting to EUR 7.6 trillion (USD 8.9 trillion). In addition, in a survey by PwC, three quarters of institutional investors said they plan to stop buying non-ESG products within the next two years. This is being driven by a combination of a more supportive regulatory and policy landscape that seeks to mainstream sustainable investment, and growing public appetite for sustainable financial products.

This offers an opportunity for India to tap into global pools of ESG finance to fund its ambitious sustainable goals. Total international financial flows into green projects was around USD 950m through FDI. Longer term measures, such as developing a sustainable finance taxonomy, putting in place measures to green the financial system, and developing consistent standards for green reporting will put India in a strong position to both deepen and widen the sources of capital. However, there is

[7]Refinitiv Lipper, September 30, 2020.

scope for the Government of India to consider a package of policy interventions in the medium-term to reduce the cost of capital and make it easier for investors to fund sustainable projects.

In India, ESG investments have outperformed conventional funds. ESG funds account for only 0.6% of total equity assets under management (Economic Times, 2020). There is evidence to suggest that companies that score high on ESG metrics have outperformed those that don't. Since the lockdown on 24 March 2020, the NIFTY 100 ESG Index (the flagship benchmark of the National Stock Exchange) outperformed the NIFTY 50 Index. This is a continuation of a long-term trend where the ESG index outperformed the benchmark NIFTY 50 every year between 2017-2019 (LSE Sustainable Finance Leadership Series, 2020).

ESG investments in India have also proved more resilient during the pandemic. Foreign investors accounted for a third of assets across India's capital markets. Between January and March 2020, foreign investors sold assets worth USD 18.5 billion. However, ESG funds received inflows worth USD 500 million, driven by the Axis ESG Equity Fund that received USD 239 million (LSE Sustainable Finance Leadership Series, 2020).

There is scope to leverage existing policies to better align them with the needs of sustainable projects and expand international capital flows. Over the long-term, India should work towards developing a liquid currency derivatives market with simplified regulations to reduce hedging costs. In parallel with efforts to improve the enabling environment at sector level, this should see capital crowd into sustainable projects in India. To support both Governments in their consideration of long-term priorities to unlock more international sustainable capital for India, the Sub-Working Group has provided an overview of sustainable finance instruments and their current usage in India at **Annex 5.**

The Working Group has initially focussed on areas where there is scope for government to build on existing policy frameworks in the short-term to increase investment and support a sustainable recovery. This includes ways to reduce hedging costs and therefore the overall cost of finance, in addition to possible tweaks to External Commercial Borrowing (ECB) guidelines and Priority Sector Lending (PSL) targets. Pragmatic use of innovation and de-risking instruments could also support more projects to reach expected risk/return profiles, increasing deal flow. A package of measures that leverage existing policies, and incorporate sustainability as a key government priority, is expected to make it easier to attract international capital to develop the country's sustainable infrastructure.

REDUCING HEDGING COSTS

Managing currency risk in a cost-effective way is a challenge facing several Indian sustainable finance projects. Currency risk arises when liabilities and operational cash flows are in different currencies. The cost of currency hedging is a function of several factors, the most important being the sovereign yield differential between two currencies. Given current yield curves between INR and USD, currency hedging rates start at 4.6% for 3 years and stabilise at around 5% for 10 years or longer. The cost of hedging also depends on the liquidity spread, the credit spread and the capital allocation charge. Additional charges levied in the commercial market could add 100-200 basis points in addition to the yield curve differential.

The Working Group will develop a proposal for the two governments on ways to reduce hedging costs. This review will assess the range of barriers facing international investors and possible solutions, including the role of Green Debt Funds in addressing the current market failures inhibiting sustainable finance.

EXTERNAL COMMERCIAL BORROWING

External Commercial Borrowing offers a route for residential entities to raise finance overseas. ECB are commercial loans raised by Indian resident entities from eligible non-resident entities. Funds raised through this route need to be conform to certain guidelines set by the RBI, such as minimum maturity and end-use requirements (RBI).

There is scope to make it easier to invest in sustainable infrastructure via the ECB route, and therefore crowd-in more international capital into domestic projects. This could involve a specific carve-out for sustainable projects under the ECB guidelines. The Government could run a trial for a single sector e.g. real estate before testing the viability of expanding the sectoral scope. As mentioned earlier, the SEBI green bond guidelines with tighter green definitions could be used on an interim basis until the sustainable finance taxonomy is ready. Some areas are captured under RBI's current infrastructure definition, such as renewable energy, but other areas of sustainable infrastructure such as smart cities and water supply are not covered adequately (See Annex 4 for a list of Government policies to support sustainable development across sectors). However, a sharper policy with a focus on sustainability can help attract additional capital.

The Working Group will build on its initial assessment and present a fuller review of possible options to the UK and Indian Governments. An initial review by the Working Group identified a few areas where changes to current regulations could help. The Working Group will undertake a more detailed assessment of these areas and present its findings.

- **Relax minimum maturity requirements:** At present, the minimum average maturity for all ECBs is 3 years. The Government of India could consider reducing this to one year for verified sustainable projects. This will offer greater flexibility to investors that are looking for short-term investments to match cashflows.
- **Relax end-use restrictions:** ECBs raised under the sustainability carve-out should be allowed to be used for working capital, general corporate expenditure and refinancing of domestically raised debt in INR.
- **Waive withholding tax:** Withholding tax is currently at a concessional rate of 5% until 2023 for foreign currency denominated ECB, after which it will revert to the DTB treaty rate of INR-denominated ECBs. The Government could waiver withholding tax for sustainable projects that are financed through ECB, similar to what the Government did for masala bonds in 2018.
- **Preferential treatment of Cross-border borrowings:** Cross-border borrowings which are under the sustainable finance taxonomy definitions should be given a preferential treatment from a cross-border regulation perspective, especially with reference to end-use, pricing and tenor.

FOREIGN PORTFOLIO INVESTORS & THE FDI ROUTE

A similar package of measures under the Foreign Portfolio Investment umbrella will provide an additional incentive to invest in sustainable projects. At present, the Voluntary Retention Route (VRR) is the only viable option under the Foreign Portfolio Investor (FPI) set of rules for an Indian subsidiary to raise finance from a parent company. The VRR route currently has a cap of around USD 40 billion. The Government could consider increasing the overall limit, say by USD 10 billion, for Indian subsidiaries looking to raise finance from their offshore parents for sustainable projects. This will reduce investor uncertainty around the availability of limits which currently go through a bid process. In addition, allowing FPI VRR investments in unlisted and unrated non-convertible debentures (NCD)

for projects that have an independent green certification could provide an additional boost. [8] A reduction in the minimum maturity requirements and a waiver of withholding tax, similar to ECBs, will also increase investment.

Consideration should also be given to sustainability incentives in the FDI route. For example, this could make it easier to invest in green projects and allow for easier repatriation of cash to foreign investors. For example, allowing investments in optionally convertible debentures (OCDs) and optionally convertible preference shares (OCPSs) under the FCVI route.

INNOVATION TO DE-RISK INVESTMENTS

Two suggestions considered by the group included:

- Joint scheme by the Indian and UK Governments to develop Green Bharat Bonds: LSE could be encouraged to launch a special asset class for India, partially guaranteed green bonds asset backed by pooling Indian sustainable projects, say USD 10 billion in 3 years. A possible structure could be say, both Governments put USD 100 million each into a guarantee pool, to cover part (say 50% up to the cap) on any currency loss greater than 3% p.a. and 50% of any credit loss over 3%. This needs to be combined with a swift, easy regulatory approval process.
- Credit enhancement: Use MDBs and domestic FIs i.e. IREDA to credit enhance green issuances so that the end investor can have a pure play on the sustainability mandate. Enabling credit enhancement, aggregation and risk mitigation instruments e.g. SECI/NTPC or Guarantee facilities have enabled the green transition in overseas markets. Resolution of cost and regulatory hurdles for this facility should be taken up on priority.

[8] At present, investment in capital markets including any downstream equity investments is only allowed for NCDs that are rated and listed.

CHAPTER 5

SUMMARY OF SPECIFIC REGULATORY AND POLICY RECOMMENDATIONS

TAXONOMY

S.No.	Recommendations	Regulations / Authorities
1	**Signalling intent on a long-term sustainable finance taxonomy for India** The Government of India needs to signal India's objective of developing a taxonomy and indicate that this will replace SEBI's green bond guidelines when completed. Adopting a phased approach to develop the taxonomy could allow the Government to move quickly in priority areas. The Government could begin with a narrower taxonomy that covers a few priority sectors and expand the scope over time. Regardless of the Government's chosen approach, there needs to be an effective set of criteria to screen activities or technologies that should be included in the taxonomy. This would need to tackle key considerations including: a. Alignment with existing international best practice to link local financing needs across sectors with international capital b. Aligning domestic capital and investor base to create and unlock demand for sustainable activities across sectors c. Clearly set out the conceptual framework for taxonomy with focus on green transition, adaptation and resilience objectives with net positive outcomes for people, especially those at the risk of being left behind d. Take a phased approach for sectors to deliver clear classifications in green and transition categories e. Employ best practice approaches to consultation and uptake for the taxonomy • **Kick-start a green recovery:** Clear definitions can help the Government include a green element to its recovery package and help India emerge as a strong global player in climate change and environment. Several other countries have introduced green stimulus measures e.g. a third of the EU stimulus package (USD 750 billion) is directed at green activities, and the UK announced a GBP 3 billion energy efficiency retrofit programme that is expected to create 140,000 jobs. Among emerging economies, Columbia, Morocco and Nigeria are some of the countries that have introduced green measures.	SEBI MoF MoEFCC

S.No.	Recommendations	Regulations / Authorities
2	**Adapt SEBI green bond guidelines to provide investors clarity while a taxonomy is developed** Launched in 2017, these guidelines are a useful first step towards defining green activities. The Government/SEBI can tighten the green definitions under the green bond guidelines as an interim measure that will provide greater clarity to investors. This could recognise unambiguously green projects and would facilitate small regulatory tweaks that could kick-start the sustainable finance market.	SEBI MoF
3	**Develop market guidance on climate risk and disclosures consistent with international best practice** Using best-practice from existing sustainable-related international frameworks, including the EU and CBI, to support develop a market guidance on climate risk and disclosures. Structured efforts are needed to green the financial system to account for climate risk and support develop robust market guidance. This proposal argues for a smart and effective approach that aligns itself internationally and outlines a way for financial institutions to strengthen their public climate-related financial disclosures, which firms can then use to develop their own approach.	MoF MoEFCC

DOMESTIC CAPITAL FOR DOMESTIC PROJECTS

1	Feasibility study for a Green Infrastructure Investment Trust (InvITs) InvITs have not yet gained wide-scale uptake in India. There are currently seven InvITs, two of which are publicly listed, and all regulated by SEBI. The Working Group will undertake a review of the current barriers facing InvITs and present findings to the UK and Indian Governments. This would address current barriers facing InvITs, lessons from the success of green yieldcos in the UK, and market demand for a pilot fund in India. The review would also explore reforms that could enable the use of InvITs to increase funding into sustainable infrastructure.	SEBI
2	1. Retiral / pension funds in India generally look for larger ticket sizes and higher rated paper for debt investment and avoid/restrict equity investments in smaller companies. Following changes can help attract more capital to Sustainability projects- a. Permit these institutions to provide co-lending to sustainability projects along with reputed lenders like SBI, IREDA, NIIF etc. with defined norms b. Provide training to staff of these institutions through banking training institutions / partnership with global firms (ISA) c. Investment of capital through debt structures in sustainability projects with additional leeway in ratings, such as (say) -(i) not more than 5% of total corpus in A- rated projects (ii) not more than 10% of total corpus in A/A+ rated projects (iii) not more than 10% of total corpus in AA- rated projects	Pension / Provident Fund regulations IRDAI regulations SEBI regulations Indian Banking Association

S.No.	Recommendations	Regulations / Authorities
	d. Eventually create a path for these institutions to invest in equity of certain sustainability projects e.g. projects that are operational and have a good rating 2. Additionally provide an option for simpler listing of this equity / debt on OTCEI a. Market making to be in place to ensure liquidity and exit options b. Regulations for protecting small investors to be implemented	
3	Various financing vehicles in the Country could have a special window wherein investors can invest into sustainable projects. a. Debt Mutual Funds to have separate category of sustainable project debt with operational track record only. These schemes could have longer tenure duration b. Sustainable projects-related INVITs to be created. INViTs should be extended to green buildings, sustainable mobility c. Encourage banks to have a separate carve-out for sustainability-linked deposits with slightly higher interest rates than normal schemes with a longer lock-in. These deposits could be used for providing long term debt to Green projects d. Open Green bond market with deemed credits that can be used by investee corporates against their carbon and energy reporting	RBI/SEBI regulations
4	Government can announce schemes for setting up of large large infra leasing companies for renewable energy sector a. Consider reduction of GST from 18% to (say) 5%/0% for operating/financial lease to enable higher capital efficiency b. Enable project proponents to bid / enter into offtake arrangements on the basis of leased assets also instead of compulsory ownership c. Remove TDS / TCS requirements on payments of lease / financing where applicable	GST Law Regulations for sustainability projects such as EECL, CERC, SECI, PTC, PWD, Govt Tenders of sustainability projects Income Tax
5	Introduce a Smaller exchange / Revival of OTC Exchange Of India (OTCEI) coupled with liberalised requirements for listing of sustainability projects akin to private companies with minimum listing disclosure / compliance requirements: a. Help retail participation in smaller sustainability projects and those that are at start-up / initial stages. Will provide capital gains tax benefits to investors, since shares will be deemed listed b. Avenue for smaller projects to raise capital on first come first serve basis c. Listing will provide better exit opportunities for non-promoter investors as compared to unlisted ventures d. Can consider simplified financial reporting on half-yearly basis instead of quarterly. e. SEBI can stipulate at least (say) (51%/40%) shareholding to be maintained by promoters during the period it is listed on OTCEI,	SEBI Regulations Income Tax Company Law

S.No.	Recommendations	Regulations / Authorities
	though additions / exits can be permitted in the promoter group. f. Legislate for no 'lock-in' for non-promoters at listing, and also introduce 'market making' to provide sufficient liquidity for investors	
6	Regulation can be amended to provide for permitting at least (say) 35% of the annual surplus of an InvIT for reinvestment instead of current stipulation of 10%	SEBI Regulations
7	Current IPO regulations prohibit raising of funds where end utilization is for investment in projects unless such projects and costs are specifically identified. Some changes in these regulations will enable raising of funds towards sustainability projects- a. Permit concept of Special Purpose Acquisition companies (similar to Blank Check company model in USA) where investors can invest / commit funds which will be used for investment in only Sustainability projects based on pre-set criteria instead of specifically identified projects within a defined timeframe. b. These SPAC could be initially floated by public sector entities like SBI, NIIF etc (see next point) c. Permit listing of SPACs on the stock exchanges	SEBI Regulations RBI/NBFC Regulations
8	Large investors prefer to float their own platforms for investing in sustainability projects and often this is not open to others investors. This leaves away a large pool of investible funds from other investors. There's a need for sustainability investment platform that can attract funding from retail investors. Few suggestions- a. The Finance Ministry through NIIF can float a public platform that can be used to channelize investments from retail investors for sustainability projects b. Government can also encourage other institutions like SBI, PFC, ADB, Foreign SWFs to float such platforms where high levels of governance are a given, even if such sponsors in themselves do not invest more than (say) 10% of the corpus. c. Exempt Crowd Funding platforms from NBFC regulations, etc.	SEBI regulations Company Law Regulations for Pension/Provident funds, etc. IRDAI
9	Following suggestions to make InvITs more investor friendly- a. Enable differential class of units to be issued by InvITs to sponsors and investors b. Sponsor held units to be sub-ordinated to units owned by investors in terms of dividends and return of capital c. Transparency in pricing and greater volume of investment opportunities will become available by virtue of the listings d. Necessary regulations to be built in to ensure protection of small investors with limited resources and availability of information	SEBI regulations Trusts Act / Company Law
10	1. Permit easier listing through simplified procedures of InvITs / Crowd Funding platforms on stock exchanges / provide alternative exchange with low listing and continuation costs	SEBI Regulations RBI/NBFC Regulations

S.No.	Recommendations	Regulations / Authorities
	2. Exempt Crowd Funding platforms from NBFC regulations, etc. 3. Transparency in pricing and greater volume of investment opportunities will become available by virtue of the listings 4. Necessary regulations to be built in to ensure protection of small investors with limited resources and availability of information	
11	Propose a simplified procedure for listing of debt related to Sustainability projects and improve liquidity for both the lender and the borrower a. Information Memorandum must provide simple and basic information of issuer, industry, project, debt instrument, promoter and risk - document length can be restricted to 20-25 pages and no more (higher disclosures resulting in longer documents don't benefit investors but helps cover up liabilities on issuer) b. Ratings process to be shortened to 1 week instead of the minimum 4 weeks taken for any typical INR issuance c. Listing process on stock exchanges to be simplified - pre-listing compliance should not take more than 2 days d. Existing loans to be permitted for conversion to bonds/debentures subject to mutual consent of lender and borrower without changing any security / pricing considerations e. Finance Ministry to set up a new Special Purpose Vehicle (SPV) for compulsory market making f. Standardization of clauses in term-sheet using a standard template - only issue size, coupon, security, maturity/tenure, covenants to differ for each issuance g. This also provides for easier exit / downsell by banks / lenders	SEBI RBI/Banking regulations Company Law
12	a. SEBI/stock exchanges to ensure that all bonds/debentures related to companies categorized as having Sustainability projects, are available for trade by all categories of investors through online portals (currently barring a few categories of tax-free bonds and some select debentures, almost 99% of the bond/debenture trades are bilaterally negotiated and only routed through the Wholesale Debt Market (WDM) b. Ensuring minimum free float mechanism/market making for bonds/debentures akin to equity c. Minimum ticket size of issuance to be say >Rs. 1 Bn	SEBI RBI/Banking regulations Company Law
13	a. Finance Ministry / RBI to permit conversion of all existing loans of Sustainability projects above a certain threshold say Rs. 5 Bn into bonds/debs subject to mutual consent of borrower and lender b. Issuer company to comply with simplified listing requirements. c. This also provides for easier exit / downsell by banks / lenders	SEBI RBI/Banking regulations Company Law
14	a. Finance ministry can consider setting up specialized institutions (similar to IREDA for renewables projects) to fund long term project debt in other areas of sustainability such as green	Finance Ministry RBI

S.No.	Recommendations	Regulations / Authorities
	buildings, electric vehicles, etc. b. Specialized sustainability institutions to be well capitalized given the potential size of the industry, so that they do not have limitations of group exposure limits	
15	Propose all debt for Sustainability projects to be exclusively linked to external benchmarks, such as – a. G-Sec Rate (for long term paper) b. RBI Repo Rate (for short term paper) 2. This will simplify the listing and pricing understanding for all investors a. Too many benchmarks are complicating the whole process. b. For e.g. most of US Bonds issuances use a US Treasury +/- spread c. Easier to assess risk of investment based on pricing spread	RBI/Banking Regulations
16	RBI can consider lowering the risk weights for Green projects that meet certain criteria. This will help banks lower their cost of equity and thereby helping reduce cost of borrowing for projects. A distinction needs to be made for Sustainability projects during operational phase on risk weights. For example, a thermal power project and Solar project have different risk profiles, but their risk weights remain the same during operations (i.e. solar project should have lower weight)	RBI/Banking Regulations
17	Current credit enhancement norms are very restrictive. Not many DFIs have been able to provide credit enhancement products to Green projects. This in turn has led to lower supply of investible green bonds. a. Credit enhancement guidelines need to be made more practical – For example, under current RBI guidelines, there is a pricing cap. The rights of the guarantee Institution are junior to the senior lender. Hence, there needs to be a holistic review of the current CE guidelines similar to international examples b. Govt can consider setting up a specialized vehicle along with institutions like Grantco	Ministry of Finance RBI Regulations
18	Given the scale and size of the investments required for Sustainable projects in India, it is proposed that the government float a new institution to be called as say Sustainability Finance Corporation (SFC): a. This institution may have a specialized credit assessment and sanctioning process to help make debt available expeditiously b. SFC would create a niche by being the first institution to fully absorb and work according to the taxonomy laid down through this paper c. It would also set standards for the ratios, covenants and financial classification and documentation for financing sustainability projects which others can subsequently replicate	Ministry of Finance RBI Regulations

S.No.	Recommendations	Regulations / Authorities
	d. Currently banks and institutions are challenged with a plethora of financing requirements, and would weigh even sustainability projects with the same broad brush which would discourage genuine investments in Sustainability. e. Sources of funds for such institutions apart from the initial sponsor capital, could be raising of equity / debt from retail investors / pension funds, etc. which will find it easier to invest in such specialized institutions rather than run their own credit departments	
19	Current ECB/FEMA regulations have stipulations which needs to be relooked to allow reasonable flow of foreign capital into sustainability projects- a. International financial markets are not always in sync with the FEMA guidelines and at different times there is liquidity available in different maturity periods. In order to provide flexibility for borrowers in India, it is suggested to change the minimum average maturity (MAM) period for sustainability and infrastructure project financing to 3 years instead of the extant 5 years minimum average maturity b. Also same period of 3 years MAM should be applicable for refinancing of existing INR debt / INR denominated ECBs as against the current stipulation of 7 years / 10 years, where there is very less capital available overseas c. Pricing cap of reference rate plus spread depending on the tenure for foreign currency should also be simplified and linked to international rating and synced to all in cap for INR denominated debt from overseas. Given that India itself is rated BBB- internationally, getting debt within the price cap becomes a bit challenging for some project entities d. There should be complete fungibility in terms of pricing and MAM tenure for both foreign currency denominated debt and INR denominated foreign debt such as Masala Bonds for the purposes of refinancing, so that the projects are able to tap optimum pools of funds available overseas.	RBI / FEMA regulations SEBI
20	Where companies are majority owned by foreign investors, following are some of the regulations that can be eased up for end utilization of domestic capital specifically in the case of Sustainability projects- a. Regulations related to acquisition of land including agricultural land in some states b. Repayment / replacement of debt raised from overseas entities / lenders for efficient financing cost	a. RBI / FEMA regulations b. Land / project regulations of different states
21	Current regulations require each company to be tested for compliances purposes as a separate legal entity and must comply with restrictions related to free movement of surplus funds across entities within the same group. Some amendments such as – a. Free investment of surplus funds between other entities in the same group without need to comply with arms length pricing, etc. b. Permit filing of group tax returns to capture the consolidated	a. Company Law b. Income Tax

S.No.	Recommendations	Regulations / Authorities
	transactions for tax purposes instead of requiring separate tax planning for each entity c. Deleting provisions related to deemed dividend tax d. This will enable fungibility of funds to move easily as investible equity / debt reduction out of internal accruals / surpluses	
22	Currently there are many green projects held up in small pieces with several corporates etc. These projects can be a good starting point to free up domestic capital by allowing sale to large platforms which can run these projects efficiently. Sellers should get limited window of tax waivers (Stamp duty, Income tax)	State stamp duty Law Income Tax

ATTRACTING INTERNATIONAL CAPITAL

There is a need for joint efforts by the Governments and financial sectors on 'deepening' and 'widening' access to international capital for sustainable investment in India.

- Deepening' in the sense of attracting more international investors with greater capacity of capital and lower risk pricing
- Widening' in the sense of more products and sub-sectors

S.No.	Recommendations (Long-Term)	Regulations / Authorities
1	Address the risk perception on India's policy evolvement: Investors seek relatively predictable and stable policy environment to foresee the risk-return avenues from investing in India.	MoF
2	Alignment of national roadmaps with international standards on Climate related financial disclosures such as TCFD (The FSB Task Force on Climate-related Financial Disclosures): There is a requirement for a comprehensive climate budget tagging framework to track climate-related expenditures in national budget systems. Need to assess the negative climate change systematic risks to the financial system.	MoF, MoEFCC
3	Explicit inclusion of sustainability in RBI's mandate: Some central banks and financial regulators such as the Bangladesh Bank, the Banco Central do Brasil, the People's Bank of China and the EU are actively pursuing green central banking policies.	MoF RBI
4	Benchmarking: India needs to have a roadmap on developing a robust sovereign yield curve initially for issue of bonds overseas and then for green issuances	MoF
5	Deep, long tenor interest and foreign currency derivative markets to hedge INR rates and currency: While this is true for all long tenor overseas investments into the country, a liquid market with simplified regulations would incentivise international investments in long-term green & sustainable projects.	MoF SEBI

S.No.	Recommendations (Long-Term)	Regulations / Authorities
6	Mechanisms to improve the monitoring of implementation of sustainability projects to evolve sustainable financial transformation at large scale as well as micro level projects and sectors	MoF

S.No.	Recommendations (Short-Term)	Regulations / Authorities
1	Empowering the central coordinator for green transition of India Economy and ensuring the involvement of diverse agencies in evolving the Taxonomy - The Climate Change Finance Unit (CCFU) within the Department of Economic Affairs, Ministry of Finance needs to be empowered as the central coordinating agency for India's Green transition. SEBI, RBI, PFRDA; IRDAI; TERI; NITI Aayog as well as aggregation platforms such as SECI and EESL need to be mandatorily involved in its agenda. International Stakeholders such as MFI's; TCX; SWF's and Institutional Investors voice also needs consideration. An example in this regard is the Green Finance Committee (GFC) of the China Society of Finance and Banking with is a +200 Member body which has played a key role in facilitating the release of new policies, promoting the notion of green finance, product innovation, and capacity-building.	MoF SEBI PFRDA IRDAI Niti Aayog SECI EESL
2	Unified statistical standards and development assessment systems to be established by this central agency: There is an urgent need to develop green finance data using unified statistical standards and development assessment systems through an effective Measurement, Reporting & Verification (MRV) System that holds good for all sources of finance. (India's Second Biennial Update Report to the UNFCC has highlighted an integrated MRV system that measures both GHGs and the finance committed to climate action as a capacity building need for the country.)	MoF MoEFCC
3	Customise and widen the range of debt /equity /hybrid instruments to improve relevance to green financing: a. Promote Asset Backed Securities: ABS opens up capital markets to mortgages, vehicle loans, agricultural and renewable energy assets that have reliable income flows with a sustainability play. b. Credit enhancement: Use MDBs and domestic FI's i.e. IREDA to credit enhance green issuances so that the end investor can have a pure-play on the sustainability mandate. Enabling Credit enhancement, aggregation and risk mitigation instruments e.g. SECI/NTPC or Guarantee facilities have enabled the green transition in overseas markets. Resolution of cost and regulatory hurdles for this facility should be taken up on priority. c. Promote green financing by Municipal agencies etc. which have significant operational potential to further the green mandate. This would also ensure market liquidity since the financing volumes could be large in due course. d. Please also refer to the various international examples on green financing structures and instruments given in Appendix 1	MoF MoEFCC

S.No.	Recommendations (Short-Term)	Regulations / Authorities
4	ESG data disclosure standards and Green tagging: a. Standards for ESG disclosures by companies: Some central regulatory agency in the country could publish standards in accordance with which all companies would need to publish data and reports on ESG implementation. This could serve as the starting point for FPI/FDIs seeking standardised data on sustainability. b. Green asset portfolio analysis and disclosure to assess climate related risks based on TCFD (Task Force for Climate-related Financial Disclosures) recommendations. ICBC (China) for example has developed an environmental stress test, incorporating environmental risk into its risk management system. c. ESG ratings: The improvement in comparability and materiality of ESG disclosures as above, endorsed by ESG rating agencies /accreditors would go towards satisfying diligence requirements of international and domestic investors. d. Green labelling/ tagging of assets and building project pipelines especially by such third-party agencies /accreditors: Green tagging is also needed for identifying green loans in the books of financial institutions to help structure green securitisation. It can prove to be an effective supply-side measure to match future demand. In Southeast Asia, regulators are walking the talk. The MAS has included the banks' sustainability practices in its supervisory assessment. It has encouraged local banks to undertake ESG assessments for their corporate clients.	MoF MoEFCC
5	Regulatory relaxations by RBI for lenders to sustainability projects: a. Include sustainability projects under Priority sector definitions: RBI could consider including lending to 'green' projects under the definition of priority sector for banks. b. Differentiated Reserve Requirements: RBI could consider lower regulatory reserve rates on green assets; favouring green investments over conventional investments. Banque du Liban for example, supports green credits by lowering the reserve requirements of commercial banks if the bank's customer can provide a certificate of energy savings. c. Accepting Carbon Certificates as part of regulatory reserves of commercial banks: Carbon certificates can be distributed to low carbon projects by a central agency. These could be made exchangeable for concessional loans with regulatory easing for the same at the lenders' end. This would reduce the capital costs for low-carbon projects and incentivise the banking system to accept them.	MoF RBI
6	Regulatory relaxations for ECBs raised for sustainability projects: a. Carve outs in the definition of 'Real estate' for ECB end use: On-lending to 'green' residential or commercial projects and to individual units in such projects to be included as a carve out in the definition of Real estate in the context of permitted end use of ECBs. b. Reduction in withholding tax on interest on ECBs raised for sustainability projects: This is currently at a concessional rate of	MoF RBI

S.No.	Recommendations (Short-Term)	Regulations / Authorities
	5% till 2023 for all FCY ECBs and Masala bonds and reverts to the DTA treaty rate for INR ECBs. c. Exemption of capital gains tax: Exemption of Capital Gains Tax on secondary market transactions and on gains on redemption due to currency depreciation could be considered in the case of 'Green' Masala bonds. d. Decrease the minimum average maturity (MAMP): Decrease the MAMP for ECBs raised under this carve out to 1 year as opposed to 3 years. e. Relaxation of the 7:1 rule for ECBs: Currently for parent ECBs, the guidelines mandate a max 7:1 ratio for Net Worth to ECB liability of the borrower. In view of the capital and leverage intensive nature of large sustainability projects, a relaxation in the 7:1 rule for parent ECBs may be considered under this carve out. f. Hedging requirements: ECBs raised under the 'green' route to be exempted from compulsory hedging requirements irrespective of tenor. g. Inclusion of hybrid /structured instruments: Such financing structures are currently not covered under the gamut of FDI or under the ECB regulations. These structures allow Indian companies to share the project risks with foreign investors while retaining operational control over project development. Given the risk sharing nature of these hybrid arrangements, the yields vary and may hence exceed RBI's maximum cap specified for ECBs. RBI could consider including structured /hybrid financial products under the ECB regulations with some caps on the overall quantum and maximum IRR etc.	
7	FPI-VRR Corporate debt for sustainability projects: a. Additional limit of USD 10 bn: Currently the Voluntary Retention Route (VRR) is the only viable option under the FPI umbrella rules to raise parent financing for Indian subsidiaries (the FPI general route requires compliance with the 50/50 rule). The VRR route currently has an overall limit of approx. USD 42 bn. To afford greater flexibility to offshore parents to finance their Indian subsidiaries engaged in sustainability projects, an additional limit of USD 10 bn may be considered for FPI-VRR Corporate Debt, to be made available on tap for this carve out. This will reduce the uncertainty and investor concern on the availability of these limits which currently though on tap, could go through a bid process. b. Minimum Average Maturity period: MAMP for such limits could be reduced to 1 year as opposed to the 3 years currently in place for VRR. c. Withholding tax on FPI VRR interest to be reduced to NIL as opposed to the current 5% under the concessional rate by the Government of India. d. Permit FPI VRR investment in unlisted and unrated NCDs issued to fund sustainability projects: Currently, investment in capital markets including any downstream equity investments is prohibited under the FPI VRR route unless the NCDs are rated and listed. Unlisted, unrated NCDs issued under the green taxonomy could be exempted from this rule.	MoF RBI

S.No.	Recommendations (Short-Term)	Regulations / Authorities
8	Subsidies to lower the cost of Retail financing by banks and NBFCs: The Government /RBI could consider a subsidy scheme for banks /NBFCs /HFCs to lower the rate given to individuals investing in units in sustainability projects or for purchase of electric /hybrid vehicles.	MoF RBI
9	Applicability of Thin Capitalisation Rules: Reinstatement of full deductibility of interest as a carveout for the 'Green' sector under the Indian Income tax act may be considered.	MoF Income-Tax Act

ANNEX 1:
WORKING GROUP MEMBERS

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ANNEX 2:
SECTOR SCOPING FOR SUSTAINABLE FINANCE TAXONOMY FOR INDIA

(Developed by FICCI)

S.No.		Sector	Sub-sectors / Technologies / Products / Project types	ESG Mapping	SDG Mapping
1		Air pollution prevention in cities	Curbing stubble burning, pollution from construction and demolition waste	Environmental, Social	SDG 11
2		Biodiversity conservation and management	Ecosystem services, conservation activities, marine pollution prevention	Environmental	SDG 14, SDG 15
3		Climate Change Adaptation	Coastal zone management, flood management and control, crop diversification practices and shifting to less water-intensive crops, climate resilient infrastructure, development of weather forecasting tools, development of risk evaluation monitoring tools, design of emergency maintenance and response systems during a disaster, disaster preparedness and response	Environmental, Social	SDG 13
4		Climate Change Mitigation	Covering all activities related to reduction of 6 greenhouse gases in any industrial, agricultural, infrastructure, transport, municipal, urban, rural contexts, development of carbon markets	Environmental, Social	SDG 13
5		Combating Desertification and Land degradation	Wasteland development and utilisation, watershed management, controlling wind erosion, soil fertility improvements, land rejuvenation	Environmental	
6		Circular Economy	Alternate use of waste of one sector in another sector (examples: use of municipal waste and industrial hazardous waste in cement kilns as alternate fuels; use of treated urban wastewater in power plants)	Environmental, Social	SDG 12

S.No.		Sector	Sub-sectors / Technologies / Products / Project types	ESG Mapping	SDG Mapping
7		Ecolabelling	Eco-labelled products, ecolabelling programmes	Environmental	SDG 12
8		Ecotourism	Environment-friendly initiatives and conservation in tourism hotspots	Environmental	SDG 12
9		Energy – Demand Side	Energy efficiency in industry, energy efficiency in buildings, energy labelling and star-rating programmes, energy efficient street lighting, energy efficient appliances	Environmental	SDG 7, SDG 13
10		Energy – Supply Side		Environmental	SDG 7, SDG 13
	10A	Conventional Power	FGD Implementation for Controlling Emissions; Fly Ash Disposal and Alternate Use; Clean Coal Technologies; Carbon Capture and Storage	Environmental	SDG 7, SDG 13
	10B	Energy Storage	Storage technologies; new battery chemistries; R&D	Environmental	SDG 7, SDG 13
	10C	Hydrogen Energy and Fuel Cells	Production, transportation, storage of hydrogen energy, fuel cell development and deployment, R&D	Environmental	SDG 7, SDG 13
	10D	Renewable Energy – utility scale, ground mounted	Solar, Wind, Bioenergy, Small Hydro, Hybrid, Round-The-Clock (RTC)	Environmental	SDG 7, SDG 13
	10E	Renewable Energy – distributed	Rooftop solar, solar mini-grids, decentralised biogas plants, solar water pumps, solar cookstoves, solar cooling, solar heating	Environmental, Social	SDG 7, SDG 13
	10F	Renewable Fuels	Compressed Biogas (CBG), Bio-CNG, Bio-LNG, Ethanol	Environmental, Social	SDG 7, SDG 13
	10G	Smart Grids	Grid management technologies, smart grid deployment, smart meters	Environmental	SDG 7, SDG 13
11		Forestry	Afforestation, Reforestation, Reducing Deforestation Initiatives, Promoting livelihoods for forest-dependent communities and forest-based products	Environmental, Social	SDG 13, SDG 15
12		Pollution prevention in industry	Industrial air pollution, Industrial hazardous waste management, Industrial wastewater – technologies, process upgradations, waste management infrastructure	Environmental, Social	SDG 13, SDG 15

ANNEX 2: SECTOR SCOPING FOR SUSTAINABLE FINANCE TAXONOMY FOR INDIA

S.No.		Sector	Sub-sectors / Technologies / Products / Project types	ESG Mapping	SDG Mapping
13		Sanitation	Building and Maintenance of Community Toilets, Building and Maintenance of Public Toilets, Behaviour Change Campaigns (BCC) for Build-Use-Maintain-Treat, Grey water management, Building Household Toilets, Sludge Management	Environmental, Social	SDG 6, SDG 9
14		Skills Development for Green Jobs	Training, capacity building, curriculum development, industry-academia linkage programmes for green jobs, sustainable livelihoods programmes	Social, Environmental	SDG 8
15		Sustainable Habitat	Green buildings, green landscaping, green construction, smart city development	Environmental, Social	SDG 11, SDG 13
16		Sustainable Mobility	Electric vehicles, biofuel-run transport, electric charging infrastructure, modal shifts, transit-oriented development for cities, shared mobility, IOT for sustainable mobility, intelligent transport systems, mass transit systems, multi-modal logistics parks, reducing freight emissions, development of inland water transport as sustainable mode, decongestion initiatives and policies, non-motorised transport (NMT) for urban and rural, infrastructure for NMT (for walking/cycling in cities)	Environmental	SDG 9, SDG 11, SDG 13
17		Waste Management		Environmental, Social	SDG 13
	17A	Battery waste management	Collection and disposal of battery waste	Environmental, Social	SDG 12
	17 B	Biomedical waste management	Treatment, Storage and Disposal Facilities (TSDFs) for biomedical waste disposal	Environmental, Social	
	17 C	Construction and demolition (C&D) Waste management	Recycling and use of C&D waste	Environmental, Social	SDG 13

S.No.		Sector	Sub-sectors / Technologies / Products / Project types	ESG Mapping	SDG Mapping
	17D	Electronic waste management (E-waste)	E-waste collection and recycling; reverse logistics programmes for e-waste; producer responsibility organisations (PROs)	Environmental, Social	SDG 12
	17 E	Industrial hazardous waste management	Treatment, Storage and Disposal Facilities (TSDFs) for industrial hazardous waste	Environmental, Social	SDG 12
	17 F	Municipal solid waste management (MSW)	MSW – waste-to-electricity projects and technologies; composting; sanitary landfills; biogas; waste collection, transportation, storage projects; waste handling products	Environmental, Social	SDG 13
	17 G	Plastic waste management	Plastic waste management – plastic waste collection and recycling; alternative uses of plastic waste (plastic waste to fuel; plastic waste for road construction); recycling infrastructure; controlling ocean plastics pollution; beach cleaning	Environmental, Social	SDG 12, SDG 14
18		Wastewater management	Urban wastewater management (PPP projects); water use efficiency in industry; water use efficiency in agriculture; wastewater market based on industry-urban-agriculture water nexus; common effluent treatment plants (CETPs)	Environmental, Social	SDG 6, SDG 9, SDG 12, SDG 13
19		Water management and conservation	Aquifer management and recharge; river development and rejuvenation; lake restoration; restoration of traditional water reservoirs; rainwater harvesting technologies and structures; safe drinking water	Environmental, Social	SDG 6, SDG 9
20		Wildlife conservation and management	Protection, conservation, management of wildlife; wildlife corridors; protection of endangered species	Environmental	SDG 15
21		Health	R&D of vaccines and medicines for communicable and non-communicable diseases; early warning, risk reduction and management of national and global health risks; mental health and wellbeing programmes; etc.	Social	SDG 3

ANNEX 2: SECTOR SCOPING FOR SUSTAINABLE FINANCE TAXONOMY FOR INDIA

S.No.		Sector	Sub-sectors / Technologies / Products / Project types	ESG Mapping	SDG Mapping
22		Education	Teacher training programmes to enhance supply of quality teachers; scholarship programmes for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries; vocational training programmes for persons with disabilities; curriculum development for different learners on sustainable development, sustainable lifestyles, human rights, gender equality, cultural diversity and culture's contribution to sustainable development; etc.	Social	SDG 4
23		Diversity and Inclusion	Driving inclusive organizational policies in companies towards gender diversity, inclusion of people with disabilities and representation from the LGBTQI+ community	Social, Governance	SDG 5
24		Corporate Governance	Programmes to train women for corporate boards; training and sensitisation programmes on prevention of sexual harassment at workplace; business ethics programmes; executive excellence programmes on corporate governance	Governance	SDG 5
25		Gender	Gender Equality, Gender Parity, Gender Diversity	Social, Governance	SDG 5
26		Safe and Affordable Housing	Housing for lower and middle-income groups, improvement of condition of slums and peri-urban areas (can be clubbed with smart cities program/improvement in civic infrastructure KPIs)	Social, Environmental	SDG 11

S.No.		Sector	Sub-sectors / Technologies / Products / Project types	ESG Mapping	SDG Mapping
2 7		Digital Access	Providing increased access to information and communications technology and universal and affordable access to the Internet, especially important for banking and IT sectors, with a Privacy and data security component. Also critical for E-Governance, last mile delivery of E-finance, E-health and E-education solutions, financial inclusion, improved compliance and monitoring of programs	Social, Governance	SDG 9

ANNEX 3:
CONSIDERATIONS FOR DEVELOPMENT OF AN INDIAN TAXONOMY

The process for designing and developing the taxonomy is as important as the technical and practical soundness of the taxonomy. At the minimum, it needs to be consultative, inclusive (multi stakeholder), transparent, and time bound.

By way of illustration to glean the good practice on process, this section presents descriptions of two national and two international processes.

Good Practice National Consultative Processes:

This section draws lessons from the consultative processes used to develop 2 important sets of guidelines and frameworks relating to sustainability released by the Ministry of Corporate Affairs (MCA), Government of India. The first, **the National Guidelines for Responsible Business Conduct (NGRBC) released in March 2019 and the second, its companion Business Responsibility and Sustainability Report (BRSR) released in August 2020.** The first, as the title suggests, is a guideline while the second is intended as reporting format that will be mandated by the stock market regulator, Securities and Exchanges Board of India (SEBI) for listed companies and by MCA for all companies. The BRSR is essentially a reflection of a company's alignment with and performance vis-à-vis the NGRBC.

BRSR Consultation Process

The drafting process for the two documents was slightly different and this was reflected in the way the consultative processes were undertaken. These are outlined below.

Intra- and inter-ministerial consultations

Once the internal draft was prepared by the drafting committee, consultations were first held with representatives from select sections within MCA where clarifications were provided and changes made so that there was a general agreement.

Subsequently, consultations were held with other relevant ministries to obtain their feedback and inputs. Two different formats were used for these consultations. One was face-to-face meetings, chaired by the Secretary MCA, where the draft was presented and inputs sought.

The other was off-line where drafts were circulated by the Secretary to his counterparts and inputs sought. Relevant inputs received were then incorporated into the draft.

By-invitation face-to-face meetings

Several types of by-invitation face-to-face meetings were organised to discuss the various drafts. One was a series of multi-stakeholder meetings which included government ministries, business and industry chambers and SEBI to discuss the final draft of the NGRBC after the public consultations. The purpose was to incorporate any final inputs and comments before finalising the draft.

In the case of the BRSR, it was felt necessary to "test" the proposed formats before finalising them. This was done by organising two roundtables. The first involved large listed companies who were already reporting to SEBI using the BRR which was mandated in 2013. The second was with SMEs to whom the idea of NGRBC and hence the BRSR was new. Again, inputs received were incorporated into the formats and were finalised.

Face-to-face public consultations

In the case of NGRBC, extensive face-to-face consultations were held in different locations where there was a significant presence of the corporate sector. Often organised in partnership with an industry body, these were multi-stakeholder consultations, typically half-day, where representatives from companies, civil society and academia were invited. The format was a presentation by the drafting team following by question/clarifications and invitation for suggestions. In some cases, table discussions were organised amongst participants to collect and articulate their feedback and suggestions.

Online public consultations

Again, in the case of the NGRBC, the draft document was posted on the MCA website and comments invited from the public. In order to be able to efficiently process the feedback, a format was provided in which feedback and suggestions were invited. The NGRBC had in the document, the reporting framework also and comments were specifically sought on this also.

On receipt of the comments, staff from MCA and its think-tank, IICA were assigned to go over each comment and classify them into those that were deemed to be relevant, those that were not and those that fell in the grey area in between. All other than those that were deemed to be relevant were again reviewed and a decision taken on whether they should be considered relevant if not and if not, the reasons. All those deemed to be relevant were then considered by the drafting committee and incorporated into the next draft.

The IBA Guidelines on Responsible Financing:

The Indian Banks' Association had been engaged on the issue of responsible business and finance since 2012 which led to the formation of a Working Group on Responsible Finance in 2014 under the aegis of the bilateral cooperation project between SIDBI and GIZ on Responsible Enterprise Finance.

IBA created a Working Group acted as a platform that brought banks, NBFCs, other agencies active in the field, corporates together to deliberate on a common understanding of what is meant by sustainable/responsible financing. The Working Group was chaired by the IBA CEO.

The Working Group designated a core group from its membership—a smaller Guidelines Drafting Group—that formulated the Guidelines, developed guidance for implementation, and sought feedback from the Working Group and a larger group of banks (IBA members).

The process was highly iterative and several online and in-person meetings led to the final draft. It was debated within the Working Group and at the IBA Management Committee. The feedback was duly incorporated. Feedback on the Guidelines was sought through email and findings were discussed by the Working Group.

The majority of comments received agreed with the rationale, objective and content of the Guidelines and a large number of them focussed on the implementation citing that since FIs are in different stages of maturity to deal with ESG, a phased implementation process was recommended. Other suggestions

from banks included: Wider consultations with other public, private and international banks, financial institutions and insurance companies to get better buy-in and capacity building for implementation; Strengthening the finance ecosystem for renewable energy with a focus on long-term debt, interest subsidies, loan guarantees and risk insurance; Pilot green bonds and green banking via state governments and municipalities; and Ensuring transparent and timely updates about plant performance to build trust amongst financiers.

The Working Group debated on various segments of the financial sector and their different material issues and different ways of risk management. A balanced perspective was attained with the aim of sustainability of the sector as a whole in the medium to long term and to enable consistent improvement in performance.

The Guidelines were approved and endorsed by the IBA and dissemination and sensitisation efforts are undertaken with 27 banks who nominated senior functionaries from their banks as nodal officers for the adoption of the Guidelines within their organisation.

International good practice examples of taxonomy development process:

Two good practice methodologies, CBI and EU, are presented here which can also be instructive in designing the process

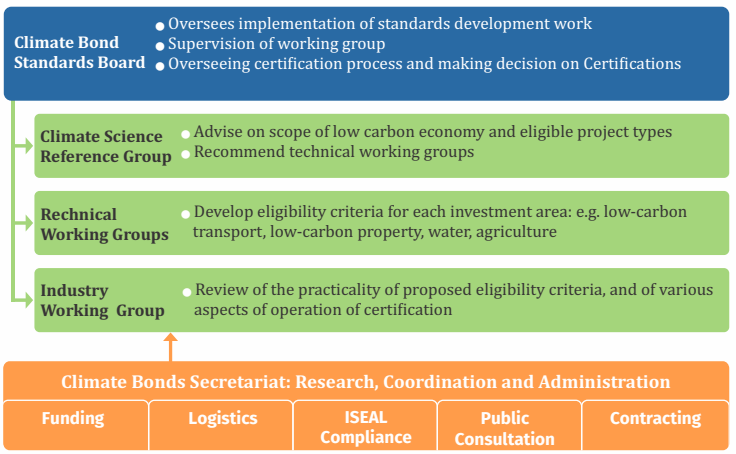
The development of a taxonomy requires definition of the methodology, sectors, activities, criteria, etc. which involves coordination and consultation between several stakeholders such as the public authorities and ministries, private companies, financial institutions, technical experts, etc. Hence it is recommended to organise the process with clear roles and responsibilities assigned before the start of the process.

The expert groups can be either clubbed as in the EU Taxonomy or separated to ensure dedicated processes as per the CBI methodology. Both the processes consider evaluation and review by different stakeholders and technical experts. The approaches are described further.

Methodology – I (CBI)

The governance structure and process involved in the development of a taxonomy is shown below:

Figure 4: Taxonomy governance structure for Methodology I



Standards Board:

The standards board oversees all the activities of the taxonomy development process. All standards and documentation relating to guidance and strategic development of the Scheme are reviewed by the Board and the decision-making is implemented through consensus. The Board is also responsible for the supervision of the working groups.

Climate Science Reference Group:

The Climate Science Reference Group advises the technical group on the scope of the activities, review and provide inputs for science-based data to support the development of screening criteria and eligible activities. The group shall consist of academics and experts who are well-versed with climate science and can evaluate activities about their mitigation potential to comply with the 1.5°C trajectory.

The group can also recommend technical experts for the Technical Working Group.

Technical Working Group:

Technical Working Groups consist of experts from academia, international agencies, think tanks, industry, and NGOs and are responsible for the development of eligibility criteria for each sector.

The group is responsible for:

- Drafting a research brief that identifies the key issues and investment opportunities for the sector.
- Develop a discussion paper that reflects the technical working group process with proposed eligibility criteria for the key investment areas within the sector.
- Making final recommendations about eligibility criteria to the Standards Board.

Industry Group:

The Industry Groups provide sector specific experience and reviews the practicability of proposed criteria for the activities.

They provide inputs to ensure that criteria are practical and conducive to rapid diffusion of the product. The group is made up of representation from each sector and will include individual companies as well as industry associations to receive inputs from various professionals in the sector.

Process and outputs

The process of the taxonomy development under this methodology is as follows:

1. Project scope

a. Definition of the roles and responsibilities.

b. Definition of the environmental objectives.

c. Selection of sectors and activities.

2. Initial assessment and draft

a. Mapping of activities against classification codes.

b. Taxonomy equivalence and comparison with international taxonomies (e.g.: EU Taxonomy, CBI Taxonomy).

c. Taxonomy equivalence and comparison with local classifications (e.g.: MRV, taxonomies developed by local institutions)

d. Identification of gaps.

3. Technical discussions

a. Prepare and review sector documents with description of activities, principle, screening criteria, justification, and secondary objectives (e.g.: DNSH criteria).

b. Appointment of the climate science reference group, technical and industry groups.

c. Organise technical discussions.

d. Review with the industry group.

4. Preparation of the taxonomy draft based on the assessments and technical discussions.

5. Review of the Standards Board.

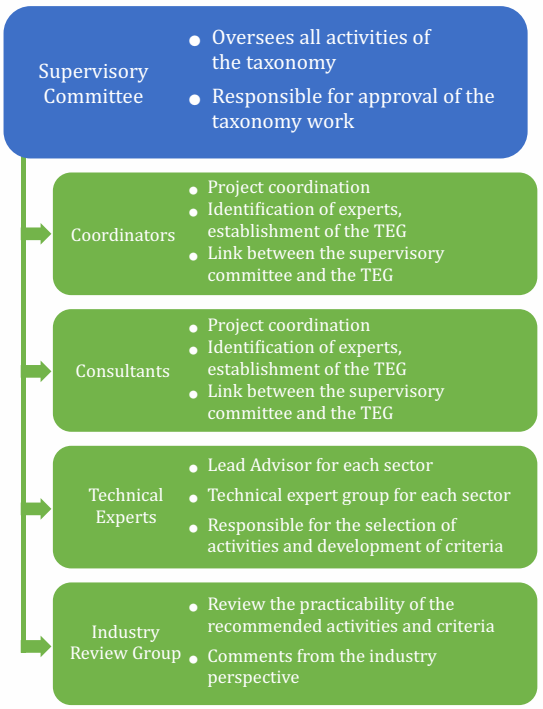
6. Public consultation process and final revision review.

7. Publish the taxonomy.

Methodology – II (EU)

An alternative methodology could the formation of a TEG similar to the EU Taxonomy. The TEG shall have experts from the academia, industry bodies, professionals and from other public and private entities. The following governance structure is recommended for the methodology:

Figure 6: Taxonomy governance structure for Methodology II



Supervisory Committee

The Supervisory Committee will be the owner of the project. The committee shall have regular meetings with the project coordinators and will be responsible for high level decisions and required approvals for the Taxonomy development process. They will also be responsible for management of the project timeline and will constantly be updated by the coordinators and consultants about the project progress.

Coordinators

The project coordinators shall be responsible for the technical evaluations, creation of a TEG, identification of Lead Advisor Chairs, experts for technical discussions, organisation of meeting and preparation of reports. They shall also be responsible for all the administrative tasks and project management and will report regularly to the Supervisory Committee.

The Coordinators shall prepare the first draft of the taxonomy which will include the list of sectors, activities and screening criteria for the activities which could be easily adopted from international taxonomies and best practices. This draft will be complemented during the technical discussions.

Project Consultants

The main role of the Project Consultants is to aid with general coordination of the TEG as well as performing ad hoc research to support the development of the taxonomy.

Project consultants could also act as Co-chairs to the sectors along with Lead Advisor Chairs to assist with the technical discussions and assist with administrative tasks such as planning the agendas, preparing the minutes, consolidating the comments and writing reports.

Lead Advisor Chairs

Lead Advisor Chairs are sector experts appointed by the Project Coordinators and the Supervisory Committee. They will bring in expert knowledge of the technical and practical aspects required for review and development of the screening criteria for the activities. In collaboration with the Coordinators, they will be in-charge of conducting research and convening activities to support the discussions. The Lead Advisor Chairs will also support in the coordination of meetings.

The Lead Advisor Chairs will also be in-charge of mapping and inviting experts for each sector and coordinate consultations with external organisations (via calls and/or workshops) to advise on criteria together with the Coordinators' support.

Technical Experts

Technical Experts will be constituted for all the sectors from academia and research institutions, public entities, technical teams, think tanks, industry experts and other technical institutions relevant to the respective sectors.

They main tasks are to review the list of recommended activities and screening criteria prepared by the Coordinators. They shall also discuss and come up with screening criteria for the pending activities. Additionally, they can suggest addition or modifications to the list of activities and the screening criteria only when the arguments are backed by science-based data.

Industry Group:

The Industry groups provide sector specific experience and reviews the practicability of proposed criteria for the activities.

They provide inputs to ensure that criteria are practical and conducive to rapid diffusion of the product. The group is made up of representation from each sector and will include individual companies as well as industry associations to receive inputs from various professionals in the sector.

Process and outputs

The process of the taxonomy development under this methodology is as follows:

1. Project scope
    a. Definition of the roles and responsibilities.
    b. Definition of the environmental objectives.
    c. Selection of sectors and activities.
2. Initial assessment and draft
    a. Mapping of activities against classification codes.
    b. Taxonomy equivalence and comparison with international taxonomies (e.g.: EU Taxonomy).
    c. Identification of gaps.
3. Technical discussions
    a. Prepare and review sector documents with description of activities, principle, screening criteria, justification, and secondary objectives (e.g.: DNSH criteria).
    b. Appointment of Lead Advisor Chairs, Co-chairs, and experts for all the sectors.
    c. Organise technical discussions.
    d. Review with the industry group
4. Preparation of the taxonomy draft based on the assessments and technical discussions.
5. Review of the Supervisory Committee.
6. Public consultation process and final revision review.
7. Publish the taxonomy.

A right mix in keeping with the defining principles of the process (consultative, inclusive, transparent and timebound) and gleaning from national and international examples described above can be put together for robust and effective execution.

ANNEX 4:
GOVERNMENT OF INDIA POLICY INITIATIVES FOR A SUSTAINABLE TRANSITION BY SECTOR

(Prepared by FICCI)

Sector	Policy/Programme/ Scheme/Target	Relevant Department /Ministry	Timelines (wherever specified)	Mission/ Objectives/ Targets
Power	Compliance of New Emission Norms by Thermal Power Plants by 2022	Ministry of Power, Central Electricity Authority (CEA) Ministry of Environment, Forest and Climate Change	2022	The Central Electricity Authority (CEA) has come out with a plan for the installation of FGDs for coal-based plants across the country, wherein the timeline varies from December 2019 to December 2022. Recent Developments Ministry of Power (MoP) has recommended to Ministry of Environment, Forests and Climate Change (MoEF&CC) that the deadline for the installation of flue-gas desulphurisation (FGD) equipment at thermal power plants be extended by an additional two years, beyond the current deadline of 2022
Power	Disposal of Fly Ash by Thermal Power Plants	Ministry of Power, Central Electricity Authority (CEA) Ministry of Environment, Forest and Climate Change	-	The Thermal Power Stations in operation before the date of the MoEFCC notification (i.e. 3rd November, 2009) are to achieve the target of fly ash utilization in successive 5 years; 50% in first year; 60% in second year; 75% in third year; 90% in fourth year and 100% in fifth year The new Thermal Power Stations coming into operation after the MoEF&CC notification (i.e. 3rd November, 2009) are to achieve the target of fly ash utilization as 50% in the first year, 70% during in second year, 90% during third year and 100% during fourth year depending upon their date of commissioning. Further,

Sector	Policy/Programme/ Scheme/Target	Relevant Department /Ministry	Timelines (wherever specified)	Mission/ Objectives/ Targets
				Ministry of Environment, Forest and Climate change also issued an amendment to the Notification on 25th January 2016 in order to widen the scope of fly ash utilization, besides engraining upon Power Utilities to bear the cost of the transportation
Power	Smart Meter National Programme (SMNP)	MoP, BEE	-	SMNP aims to replace 25 crore conventional meters with smart meters in India
Energy Efficiency	Roadmap of Sustainable and Holistic Approach to National Energy Efficiency (ROSHANEE)	MoP, BEE	On-going	PAT-V (2019-22) and PAT-VI (2020-23) schemes underway covering 13 large energy-intensive industries
Renewable Energy	National Solar Mission, Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid-connected Wind Power projects, Biomass Power and Bagasse Co-generation Programme, Small hydro-power (upto 25 MW) programme, Schemes for Off-Grid Renewable Power, Programme for energy efficient solar/green building programme	Ministry of Renewable Energy, CEA, CERC	2030	250 GW installed RE capacity by 2022 and 450 GW by 2030
Mobility	National Mission on Transformative Mobility and Battery Storage	DHI, NITI Aayog, MoRTH, MoP, MNRE, DST, DIPP, BIS	2024	A phased roadmap to implement battery manufacturing at Giga-scale will be considered with initial focus on large-scale module and pack assembly plants by 2019-20, followed by integrated cell manufacturing by 2021-22. Details of the PMP for Batteries shall be formulated by the Mission. The Mission will ensure holistic and comprehensive growth of the battery manufacturing industry in India. PMP shall be valid for 5 years till 2024

Sector	Policy/Programme/ Scheme/Target	Relevant Department /Ministry	Timelines (wherever specified)	Mission/ Objectives/ Targets
				to support setting up of a few large-scale, export-competitive integrated batteries and cell-manufacturing Giga plants in India as well as to localize production across the entire Electric Vehicles value chain The Mission will prepare the necessary roadmap that will enable India to leverage upon its size and scale to produce innovative, competitive multi-modal mobility solutions that can be deployed globally in diverse contexts. The Mission will define the roadmap for transformative mobility in "New India" by introducing a sustainable mobility ecosystem and fostering Make-in-India to boost domestic manufacturing and employment generation in the country.
Mobility	Second phase of the Faster Adoption and Manufacturing of Electric Vehicles in India (FAME-II)	DHI	2022	Outlay of Rs. 10,000 Crore for a period of 3 years commencing from 1st April 2019. Out of total budgetary support, about 86 percent of fund has been allocated for Demand Incentive so as to create demand for xEVs in the country. This phase aims to generate demand by way of supporting 7000 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars (including Strong Hybrid) and 10 lakh e-2 Wheelers.
Mobility	Urban Green Mobility programme	MoHUA	2023	To provide funding for the procurement of green transport like electric buses. It was planned to provide INR 700 billion (USUSD 10.75 billion) to 103 cities over the periods of 7 years (2018-19 to 2022-23).

Sector	Policy/Programme/ Scheme/Target	Relevant Department /Ministry	Timelines (wherever specified)	Mission/ Objectives/ Targets
Railways	Initiatives to decarbonize Rail transport	Ministry of Railways	2030	To be a net zero carbon emitter by 2030
Biofuels	National Policy on Biofuels 2018	MoPNG	2030	Increase in domestic production, setting up Second Generation (2G) biorefineries, development of new feedstock & technologies; Indicative blending target by 2030: Ethanol in Petrol : 20%, Biodiesel in Diesel : 5%
Biofuels	SATAT scheme	MoPNG	2023	Launched in October 2018. It envisages targeting production of 25% of available CBG potential in the country i.e. 15 MMT by 2023, from 5000 plants. 15 MT of CBG corresponds to over 1/3rd of present natural gas consumption of 44 MMT
Biofuels	Pradhan Mantri JI-VAN (Jaiv Indhan-Vatavaran Anukool Fasal Awashesh Nivaran) Yojana	MoPNG	2024	Financial support to integrated bioethanol projects using lignocellulosic biomass and other renewable feedstock. The JI-VAN Yojana will be supported with total financial outlay of INR 19.695 billion from 2018-19 to 2023-24
Biofuels	Galvanising Organic Bio-Agro Resources Dhan (GOBAR-DHAN)' scheme	MoPNG	-	To convert cattle dung and solid waste in farms to CBG and compost. The programme will be funded under Solid and Liquid Waste Management (SLWM) component of Swachh Bharat Mission-Gramin (SBM-G) following the suggested guidelines of SBM-G.
Water	National Water Mission	National Water Mission, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti	2030	Improving Water Use Efficiency by 2030
Water	Jal Jeevan Mission	Department of Drinking Water and Sanitation,	2024	To provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India

Sector	Policy/Programme/ Scheme/Target	Relevant Department /Ministry	Timelines (wherever specified)	Mission/ Objectives/ Targets
Sanitation	Swachh Bharat Mission	Department of Drinking Water and Sanitation, Ministry of Jal Shakti	2024-25	for achieving the 'ODF plus' status of sanitation component
Water	Pradhan Mantri Krishi Sinchai Yojana (PMKSY)	Ministry of Jal Shakti	2020	To promote mico-irrigation technologies, 'per drop more crop', har khet ko pani
Water	Namami Gange	National Mission for Clean Ganga, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti	-	For cleaning of River Ganga
Water	National River Conservation Plan	MoEFCC	-	To reduce the pollution load in rivers through implementation of various pollution abatement works, thereby improving their water quality.
Water	Atal Bhujal Yojana	Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti	2024-25	To improve groundwater management through community participation
Biodiversity	National Biodiversity Plan	MoEFCC	2030	12 bio-diversity targets are being monitored. One of the commitment to achieve land degradation neutrality by 2030
Waste Management	Extended Promoter Responsibility Plan	MoEFCC	2024	E-waste collection targets to increase 10% every year for older companies until they reach 70% by FY24, and will stay at that level from going forward. For newer companies, the target for FY 2018-20 was at 5% of the sales in FY16-18, which will increase to 10% in FY 2020-2022 for sales done in these years. This target will increase to 15% in FY 2022-24 and 20% from FY 2024 onwards

Source: FICCI

ANNEX 5:
ANALYSIS OF SUSTAINABLE FINANCE INSTRUMENTS AND STATUS IN INDIA

DEBT INSTRUMENTS

Debt instrument	Definition	Example	India Status
Sovereign green bonds	Proceeds are allocated to nominated projects and assets. Debt securities carry the credit rating of the issuing State. However, an independent rating may be assigned by ratings agencies.	The Republic of Indonesia issued a USD1.25bn 5-year green sovereign sukuk in 2018 to finance eligible projects under a range of categories: renewable energy, energy efficiency, adaptation, transport, green buildings, sustainable agriculture, sustainable management of natural resources and green tourism.	India resurgent bonds.
Sub-sovereign green bonds	Proceeds are allocated to nominated projects and assets within the sponsoring region. Credit rating is based on that of the issuing municipality and the credit quality of the underlying assets.	In 2016, the Vietnam Ministry of Finance approved a pilot project for municipal green bonds. Ho Chi Minh City Finance and Investment State Owned Company issued a VND523.5bn (USD23m) 15-year green bond with proceeds allocated to 11 projects related to the water, adaptation and infrastructure sectors	Several municipalities and utility organizations in India have issued bonds that so far have mobilized over INR 12,316 million (USD 205 million) through taxable bonds, tax-free bonds and pooled financing. Issues with Pooled Finance Development Fund Scheme – 1. Higher weighted average cost of capital 2. Rigid escrow account mechanism 3 Lack of a process guidance framework for municipalities

Debt instrument	Definition	Example	India Status
General obligation green bond	Proceeds are allocated to nominated projects and assets within the sponsoring region. As the green bonds are backed by balance sheet assets, the bond will carry the credit rating of the issuing entity.	Singapore state development bank DBS Group issued a USD500m 5-year green bond in July 2017. Proceeds will be allocated to green buildings, transport, renewable energy, energy efficiency, waste and adaptation.	
Green revenue bond	Proceeds are allocated on nominated projects and assets. As the green bonds are backed at least partially by the issuer's revenue stream, bonds carry the credit rating of the issuing entity.	In 2017 Beijing Enterprises Water Group, which operates 19 water treatment plants under contracts with 16 municipalities, issued a securitisation backed by water treatment service fee receivables. The proceeds are to be invested in 9 new water infrastructure projects.	
Green structured finance	Debt securities backed by a pool of underlying assets. Proceeds are allocated only to nominated projects and assets. The credit risk is dependent on the asset risks	National Australia Bank placed AUD200m of secured notes for the refinancing of wind and solar assets in June 2018. The structure is backed by loans to Australian renewable energy developers.	
Green securitisation	Debt securities backed by a pool of underlying assets. Proceeds are allocated only to nominated projects and assets. Often an independent credit rating is issued by a rating agency, but this is not a requirement. The credit risk is dependent on the asset risks.	Harvest Capital (China) has issued Green CMBS secured on a LEED Gold Certified office building owned by China Energy Conservation and Environmental Protection Group (CECEP).	

Debt instrument	Definition	Example	India Status
Green convertible bond	Proceeds are allocated on nominated projects and assets. The security can be converted into a predetermined amount of the company's common stock. The bond will carry the credit rating of the issuing entity.	Japan-based Sumitomo Forestry Co., Ltd issued the first green convertible in September 2018 to refinance the acquisition of 30,000 hectares of FSC certified timberlands and plantation forests in Nelson, New Zealand. The Stock Acquisition Rights give bondholders the option to acquire the company's common stock.	
Green project bond	Proceeds are allocated on nominated projects and assets. Credit rating is based on the quality of the backing green assets and the returns stream of the underlying project.	In August 2017, the Inter-American Investment Corporation (IIC), the private sector branch of the IDB Group, arranged a USD135.8m 20-year B-bond to finance a 70MW wind farm located in Uruguay and developed by US-based energy company Invergy. The B-bond was sold to institutional investors to refinance the A/B loan previously provided by IIC and DNB Bank for the construction of the wind farm.	
Environmental impact bonds / pay-for-results green bonds	Proceeds allocated to nominated green projects/assets. Part of the project's risk is transferred from the issuer to investors. The payments to investors are conditional to the project achieving an expected outcome after a third-party evaluation has been conducted.	DC Water and Sewer Authority issued a USD25m private placement in 2016 to finance the construction of green infrastructure designed to mimic natural processes to absorb and slow surges of storm water during periods of heavy rainfall. If the outcome of the project meets expectations, no contingent payment will be due to investors. If it exceeds expectation, investors will make a Risk Payment Share of USD 3.3m to DC Water, if it does not achieve expectations, DC Water will make an outcome payment to investors	

Debt instrument	Definition	Example	India Status
Private placement	Green bond placed directly with the investor/s. Details of the deal such as pricing and maturity may remain confidential, but the issuer is expected to disclose details on the nominated projects and assets to be financed.	Thailand-based TMB Bank issued an USD60m 7-year green private placement in June 2018 to finance solar, biomass and waste to energy projects. The IFC was the sole investor in the deal.	
Green loans, syndicated loans and credit lines	Provide lending to encourage market development in climate-aligned sectors in line with the Climate Bonds Taxonomy and in compliance with the Green Loan Principles. Interest rates are based on borrower credit scores or an ESG score assigned by an ESG rating agency.	Fraser Property Limited (Singapore) issued a SGD1.2bn (USD876m) 5-year green loan to refinance existing loans relating to the development of the Fraser Tower.	
Mezzanine and subordinated debt	Proceeds are allocated on nominated projects and assets. Hybrid capital investments, from development banks seeking to support private investment in the senior debt or from investors with a higher risk appetite	In May 2018, Canadian insurance company Manulife Financial issued a CAD600m (USD464m) 10-year green subordinated secured bond.	

EQUITY INSTRUMENTS

Equity instrument	Definition	Example	India Status
Investment Trusts	Use of proceeds to fund a portfolio of green projects. Publicly traded vehicle consisting of pools of long- term cash generating green assets, may have tax advantages.	US REIT Hannon Armstrong issued a debut USD100m ABS in 2013. The deal was secured on ground lease receivables from 78 solar and wind farms. Leasing land to renewable energy operators carries lower	

Equity instrument	Definition	Example	India Status
		risk than owning and operating the solar and wind farms. Pooling the leases creates diversity of income streams, a prized feature of securitisations, which further lowers deal risk	
Infrastructure/ property funds	Fund directly investing in nominated infrastructure projects. Funds can have a mixed financing structure by both investing directly in assets and through debt subscription	Glennmont Partners is a European-based fund manager focusing on clean energy infrastructure investments. In October 2017, the fund completed a EUR190m refinancing of a portfolio of operating wind turbines located in Sicily and Puglia, Italy	
Public-Private Partnership	A long-term contract between a public entity and a private party aimed at developing and supporting a public asset or service. The private party takes on significant risk and management responsibility, and remuneration is linked to performance	PT Sarana Multi Infrastruktur (PT SMI), a state-owned infrastructure financing company, plays an active role in facilitating infrastructure financing, project development and infrastructure advisory services in Indonesia. PT SMI supports the Government's infrastructure development agenda for Indonesia through partnerships with private and/or multilateral financial institutions in PPP projects	
Joint venture, partnership	Business agreement between two or more parties that pool their capital, skills and resources to achieve a specific project or business activity	SunPower Capital and Hannon Armstrong Sustainable Infrastructure Capital entered into a joint venture - SunStrong Capital Holdings, LLC - to acquire, manage and finance a portfolio of residential solar PV systems. The JV issued a USD400m solar ABS in November 2018	Tata CleanTech Capital Limited (TCCL), India's first 'green bank', is a private non-bank financial company set up with support from the IFC,and has mobilised US$700 million from an initial investment of US$130million.

Equity instrument	Definition	Example	India Status
Private equity, venture capital and unlisted equity funds	Fund allocations to innovative pilot-scale green projects including for qualified green infrastructure. Aid project developers and entrepreneurs to secure a funding stream for green projects. PE often incorporates green indicators into process		Growth Equity Fund (GGEF) in India. The fund, established in 2018, is focused on identifying, investing and supporting growth in zero carbon and low carbon energy solutions in the country. GGEF already includes investments from the Government of India, through the National Investment and Infrastructure Fund (NIIF), and the UK Government, through DFID
Hybrid financing - Mezzanine/subordinated debt and preferred stock (B-shares)	Hybrid financing typically from development banks and international finance institutions supported by subordination of equity tranches. Often, lenders are allowed to convert the loan into subordinate equity shares according to pre-specified conditions. Alternatively, shares may be used as loan collateral.	AMP Capital's GBP 37m mezzanine investment stake in a GBP247m refinancing of UK solar parks.	
Subsidiary / project financing vehicles / YieldCos	Use of proceeds to fund a portfolio of (off balance sheet) green projects. Private or publicly traded vehicle consisting of pools of long-term cash-generating green assets, may have tax advantages.	City Developments Limited (CDL) issued an SG100m (USD71m) senior secured Certified Climate Bond in April 2017 through its wholly owned subsidiary CDL Properties Ltd to refinance an intercompany loan extended by CDL to CDLP for Republic Plaza, one of Singapore's tallest skyscrapers and a premium Grade A office building in the heart of Singapore's Central Business District.	

CREDIT ENHANCEMENT MECHANISMS

Credit enhancement mechanisms	Definition	Example	India Status
Full or partial credit guarantee (PCG)	A credit guarantee or PCG is created to absorb part or all the debt service default risk of an infrastructure project, irrespective of the cause of default. PCGs can be used for any commercial debt instrument (loans, bonds) from a private lender. The existence or proposed implementation of a PCG is indicative of confidence in the product being floated by the guaranteeing entity and can even assist in bringing new lenders to the table.	Sindicatum Renewables (Singapore) issued a two-tranche 7-year senior secured green bond deal totalling INR2.5bn (USD40m) in January 2018. Later in 2018, it returned to the market with a senior secured green bond of PHP1.1bn (USD20m). GuarantCo provided a 100% credit guarantee for both deals.	
Partial risk swap guarantees	Partial Swap Guarantees cover investors against the risks arising from currency swaps in cross-border transactions or where the debt service cash flow is in a different currency from the deal cash flows, which would require the issuer to hedge the currency mismatch to provide comfort to investors that payments can be made in the debt currency.	Brazil-based private sector bank Unibanco issued JPY25bn 10-year amortising notes backed by the banks' USD denominated offshore remittance flows. The deal was placed with Japanese institutional investors, who required a hedging on the currency mismatch. To reduce the credit exposure for the institution providing the currency swap, the issue obtained a PSG from the IFC	
First-loss provisions	First-loss provisions refer to any device designed to protect investors from the loss of capital that is exposed first if there is a financial loss of	The Green Cornerstone Bond Fund, created by the IFC and Amundi and launched in March 2018, is the world's largest targeted green bond fund focused on investing in	

Credit enhancement mechanisms	Definition	Example	India Status
	security. These could be debt, equity or derivatives instruments including mezzanine finance, cash facilities or guarantees. They could also take the form of insurance that insures debt security providers who are liable to pay compensation to the investors, irrespective of the cause of the loss.	emerging markets. To lower risk and attract private sector investments, the IFC will provide a first-loss coverage through a junior tranche.	
Concessional loan	Concessional loans are loans that are Granted on substantially more generous terms compared to market loans, which is achieved through below-the-market interest rates, longer grant periods or a combination of both.	The Republic of Seychelles issued the world's first blue bond of USD15m in October 2018 to finance sustainable marine and fisheries projects. GEF provided a USD5m concessional loan that will partially cover the bond's interest payments. The deal is also supported by a USD5m partial guarantee from the World Bank	
Energy Service Companies (ESCOs)	Energy Service Companies (ESCOs) provide technical and financial services for the implementation of energy efficiency solutions. Under a Guaranteed Saving Schemes, the ESCO guarantees a certain level of energy savings, thus assuming the performance risk. With a Shared Savings Model, higher energy savings determine a lower cost of the energy service. In both schemes, financing can come either from the ESCO or a third party.	Malaysia Debt Ventures, a government-backed technology financier, set up an Energy Performance Contracting fund to provide credit financing to ESCOs for implementing energy efficiency projects	

Credit enhancement mechanisms	Definition	Example	India Status
Viability gap funding (VGF)	VGF is used specifically in infrastructure to cover for the heavy upfront funding that is required to kick start projects. An analysis of the viability of a proposed project points out the weak areas that prevent large-scale funding from being obtained. A VGF scheme can be implemented through capital grants, subordinated loans or even interest subsidies to target specific issues that are affecting the viability of the project. A blended finance approach could also be used to reduce project risk.		The Government of India launched in 2004 a Viability Gap Funding (VGF) scheme for public-private partnership infrastructure projects. The scheme was also used to set up 5,000MW of grid-connected solar PV projects.
A/B loans or grant	A/B loans or grants are where a Multilateral Development Bank (MDB) offers the "A" portion of the loan while attracting other lenders to join in a second (or "B") tranche. The MDB will be the lender-of-record, lead lender and administrative agent in the transaction. This reduces part of the risks of the operations, by also being covered by the "umbrella" of the MDBs that include a preferred creditor status and de jure immunity from taxation.	Italian transmissions system operator Terna issued an USD81m green loan in project finance format in July 2017. The Inter-American Development Bank offered the USD56m A loan and BBVA subscribed a B loan for USD25m. The deal will finance the design and construction of a 213km transmission line of 500kv in the north-east of Uruguay	

ACRONYMS

CBI	Climate Bonds Initiative
CDPQ	Caisse de dépôt et placement du Québec
CERC	Central Electricity Regulatory Commission
CFLI	Climate Finance Leadership Initiative
COL	City of London
COP	UN Climate Change Conference of the Parties
CPI	Climate Policy Initiative
DNSH	Do No Significant Harm
ECB	External Commercial Borrowing
EESL	Energy Efficiency Services Limited
EFD	Economic and Financial Dialogue
EPFO	Employees' Provident Fund Organisation
ESG	Environmental, Social and Governance
EU	European Union
EUR	European Monetary Unit
FDI	Foreign Direct Investment
FEMA	Foreign Exchange Management Act
FICCI	Federation of Indian Chambers of Commerce and Industry
FPI	Foreign Portfolio Investment
FVCI	Foreign Venture Capital Investor
GBP	British Pound
GDP	Gross Domestic Product
GFI	Green Finance Institute
GHG	Green House Gas
GIFT City	Gujarat International Finance Tec-City
GoI	Government of India
GST	Goods and Services Tax
HMT	HM Treasury
ICMA	International Capital Market Association
IFC	International Finance Corporation
ILO	International Labour Organisation
INR	Indian Rupee
InViT	Infrastructure Investment Trust
IPO	Initial Public Offer
IRDAI	Insurance Regulatory and Development Authority of India
IREDA	Indian Renewable Energy Development Agency Limited
LSE	London Stock Exchange
MAM	Minimum Average Maturity
MDB	Multilateral development banks
MoEFCC	Ministry of Environment, Forest and Climate Change
MoF	Ministry of Finance
NBFC	Non-Banking Financial Company
NCD	Non-Convertible Debentures
NDC	Nationally determined contributions
NDRC	National Development and Reform Commission
NIIF	National Investment and Infrastructure Fund
NIPFP	National Institute of Public Finance and Policy
NPS	National Pension Service
NSE	National Stock Exchange
OCD	Optionally Convertible Debentures
OCPS	Optionally Convertible Preference Shares
OECD	Organisation for Economic Co-operation and Development
OTCEI	Over-The-Counter Exchange of India
PFRDA	Pension Fund Regulatory & Development Authority
PSL	Priority Sector Lending
PWD	Public Works Department
RBI	Reserve Bank of India
SDG	Sustainable Development Goals
SEBI	Securities and Exchange Board of India
SECI	Solar Energy Corporation of India
SPAC	Special Purpose Acquisition Company
SWG	Sub-Working Group
TCFD	Taskforce on Climate-related Financial Disclosures
TCS	Tax Collected at Source
TCX	Currency Exchange Fund
TDS	Tax Deducted at Source
TEG	Technical Expert Group
UK	United Kingdom
UKISFWG	UK-India Sustainable Finance Working Group
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
VRR	Voluntary Retention Route
WDM	Wholesale Debt Market

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