

The Green Investment Banker: A Strategic Manifesto for Financing India's Net Zero and *'Viksit Bharat'* Future

Ejaz Chani

Senior Visiting Fellow, CPR

December 2025

ABOUT THE AUTHOR

Ejaz Ghani is currently Senior Visiting Fellow, Centre for Policy Research, New Delhi, India. He is also affiliated with the Pune International Centre.

Prior to this, he was Lead Economist at the World Bank, where he worked on Africa, East Asia, South Asia, Corporate Strategy, and the Independent Evaluation Unit. He writes for the Business Standard, The Hindu, Financial Express, Mint, VoxEU, and Project Syndicate, and is an agenda contributor for the World Economic Forum. He has edited several books, most recently, India's Pathways to Success: Winning in the Next Decade, Rupa Publications India 2023 (with Ganesh Natarajan). Prior to joining the World Bank, he taught economics at St. Anne's College, University of Oxford and Shri Ram College of Commerce, University of Delhi. He obtained an M.Phil. and D.Phil. in Economics from the University of Oxford, as an Inlaks Scholar. His initial schooling was in Bihar, and he continues to be invested in its development.

This working paper is the second in a series on Viksit Bharat, which will address different aspects of this multi-generational challenge. More information on the series can be obtained from <https://cprindia.org/project/the-viksit-bharat-series/>

EXECUTIVE SUMMARY

The \$10 Trillion Challenge: Financing a Green 'Viksit Bharat' India's national goal of becoming a developed economy by 2047 is inextricably linked to achieving its Net Zero commitment by 2070. This twin ambition requires an investment of an estimated \$10 trillion, primarily in green infrastructure and industrial modernization. This paper argues that this colossal sum cannot be met by public funds alone. The central economic challenge for India over the next two decades is to build the institutional capacity to mobilize and direct trillions of dollars in private and global capital towards this green transition.

The Diagnosis: The "Green Profitability Gap" The reason private capital remains on the sidelines is not a lack of available funds, but a fundamental misalignment between the needs of green projects and the requirements of private finance. We diagnose this problem as the "Green Profitability Gap," which is caused by a trinity of market failures.

The Risk-Return Mismatch: Key green technologies (e.g., green hydrogen, energy storage) have high upfront costs and perceived risks that make them "un-bankable" for conventional lenders and investors.

The Unpriced Externality: The immense social benefit of climate action is not priced into the market, while the cost of carbon pollution is largely free. This makes "brown" investments often appear more profitable than "green" ones.

Nascent Market Infrastructure: The lack of a deep green bond market, a trusted green taxonomy, and specialized financial expertise creates high transaction costs that deter investment.

The Blueprint: The State as the "Green Investment Banker" To close this gap, this paper proposes a fundamental shift in the role of the state—from a passive regulator to a proactive "Green Investment Banker" for the nation. This new model of statecraft is built on a three-pillar strategy:

- **Pillar 1: De-risking Projects to "Crowd-In" Private Capital.** The state must use its limited public funds surgically to de-risk projects for private investors. By providing first-loss guarantees and other blended finance instruments through institutions like NaBFID and IREDA, a small amount of public capital can be leveraged to unlock a much larger pool of private investment.
- **Pillar 2: Making Green Profitable through Carbon Pricing.** The state must implement a credible, predictable, and gradually rising national carbon price (via a tax or an Emissions Trading System). This single policy corrects the key market failure, making green investments inherently more profitable than polluting alternatives and directing private capital at an economy-wide scale. The rise of Carbon Border Taxes (CBAMs) from trading partners makes this domestic reform a strategic and economic necessity.
- **Pillar 3: Building the "Plumbing" of a Green Finance Ecosystem.** The state must architect the market infrastructure to channel capital efficiently. This includes developing a liquid green bond market, establishing a mandatory National Green Taxonomy to prevent "greenwashing" and build trust, and empowering financial regulators (RBI, SEBI) to support this ecosystem.

The Way Forward: A Coordinated and Just Transition Executing this complex strategy requires a new level of institutional coherence. The paper recommends the formation of a high-level "National Climate Finance and Transition Council," (NCFTC) chaired by the PMO, to drive the agenda. Its first mission should be to orchestrate India's inaugural sovereign green bond issuance to signal a clear commitment to global markets. Crucially, this council must also oversee a "Just Transition Commission" to ensure the social and economic costs of this shift are managed equitably. By adopting this model of proactive statecraft, India can close the Green Profitability Gap and finance a future that is both prosperous and sustainable.

INTRODUCTION

THE GEOPOLITICAL MANDATE FOR THE GREEN INVESTMENT BANKER (GIB)

India's twin national goals—achieving the 'Viksit Bharat' (developed nation) status by 2047 and fulfilling the Net Zero commitment by 2070—are intrinsically linked, requiring a foundational investment mobilization effort estimated at \$8.0 to \$10.5 trillion over the next few decades.¹ This requirement is not merely a budgetary aspiration but the necessary prerequisite for sustained, competitive economic transformation. As public finance and the domestic banking system are constrained, capable of funding only 15% to 20% of this staggering quantum, the central economic challenge is bridging the resultant \$6.5 to \$8.5 trillion financing gap using private and global capital.

The structural obstacle preventing this mobilization is the Green Profitability Gap (GPG), where perceived risks outweigh potential private returns. Closing this gap demands a fundamental reformation of statecraft. The state must transition from its traditional role as a passive regulator and direct funder to an active Green Investment Banker (GIB) for the nation. The GIB's primary function is not to underwrite projects, but to surgically de-risk them and establish the long-term policy certainty required by institutional investors.

This transformation is strategically imperative and non-negotiable, driven by both domestic necessities and global trade realities. On the global front, the rise of carbon border adjustments, such as the EU's Carbon Border Adjustment Mechanism (CBAM), poses a direct threat to the competitiveness of India's key exports². The implementation of a robust domestic carbon price, a core pillar of the GIB strategy, becomes an act of economic defense and fiscal sovereignty, ensuring revenue stays in India rather than being collected by trading partners.³ Domestically, the GIB model embeds the Just Transition as a first-order macroeconomic policy, stabilizing the political economy by protecting vulnerable regions and workers, thereby building the public trust necessary for structural reforms.⁴ This integrated model establishes India as a rule-maker, offering a pragmatic and scalable template for green development across the Global South.

¹ Singh, V. P., and Sidhu, G. (2021): *Investment sizing India's 2070 net-zero target* (Issue Brief), CEEW, November, [CEEW-CCF-Investment-Sizing-India's-2070-Net-Zero-Target.pdf](https://www.ceew.in/publications/ceew-ccf-investment-sizing-indias-2070-net-zero-target.pdf)

² Singh, Harman; Aparna Sharma; and Vaibhav Chaturvedi (2025): "EU Carbon Border Adjustment Mechanism: Dominant Perspectives in India", Working Paper, October 2025, <https://www.ceew.in/publications/how-can-india-address-carbon-pricing-challenges-with-the-cbam-regulation> (accessed November 20, 2025)

³ Seth, S., and Kaushik, H. (2025): "Examining interactions among challenges of green financing in India", *Ecological Civilization*, 2(4): - SCIEPublish, <https://www.sciepublish.com/article/pii/629> (accessed November 20, 2025)

⁴ Jaspal, Mannat, and Neha Khanna (eds.) (2024): "A roadmap for green and transition finance in India", Observer Research Foundation and Climate Policy Initiative, September 2024 <https://www.climatepolicyinitiative.org/publication/a-roadmap-for-green-and-transition-finance-in-india/> (accessed November 20, 2025)

PART I: WHY — THE MANDATE AND PROFITABILITY GAP

SECTION 1: THE SCALE OF AMBITION AND THE FINANCING GAP (THE NECESSITY)

India's transformation requires an investment mobilization effort estimated at \$8.0–\$10.5 trillion over the next two to three decades¹. The power sector alone requires approximately \$8.4 trillion to expand renewable energy generation and related infrastructure.⁵

THE PUBLIC FINANCE CONSTRAINT: A FISCAL REALITY CHECK

The government and the domestic banking system can only fund a fraction (15–20%) of this need. Forcing banks to underwrite all of this long-term, high-risk infrastructure would risk a recreation of the Twin Balance Sheet Crisis and crowd out credit for the crucial MSME sector.

THE \$6.5–\$8.5 TRILLION FINANCING GAP

The resulting structural Financing Gap of approximately \$6.5 to \$8.5 trillion defines the central economic challenge. Crucially, studies indicate that mobilizing foreign capital effectively necessitates significant investment support, estimated at \$1.4 trillion, in the form of concessional finance from developed economies⁵.

Table 1: The Illustrative 'Net Zero' Financing Gap for India (2025-2070)

Investment Category	Illustrative Requirement (USD Trillion)	Plausible Contribution from Public Finance* (USD Trillion)	Financing Gap to be Filled by Private & Global Capital (USD Trillion)
Power Sector (Renewables, Grid, Storage)	3.5–4.5	0.7–0.9	2.8–3.6
Industry (Green Steel, Cement, Hydrogen)	2.0–2.5	0.3–0.4	1.7–2.1
Transport (EVs, Charging Infra, Public Transit)	1.5–2.0	0.3–0.4	1.2–1.6
Adaptation & Other	1.0–1.5	0.2–0.3	0.8–1.2
Total Estimated Need	8.0–10.5	1.5–2.0	6.5–8.5

Note: Figures are illustrative estimates based on projections from sources like the IEA, CEEW, and the World Bank. "Public Finance" includes central and state budgets and the balance sheet capacity of public financial institutions, assuming significant but fiscally constrained contributions.

The illustrative figures in Table 1 are not just an accounting exercise; they are the financial translation of India's national ambition. They represent the "price tag" for transforming India into a prosperous, resilient, and sustainable developed economy by 2047. To understand their importance, we must deconstruct what they represent.

⁵ IMPRI Impact and Policy Research Institute (2025) "NaBFID 2025: De-Risking India's Infrastructure Pipeline Through Credit Enhancement", <https://www.impriindia.com/insights/nabfid/>, (accessed November 20, 2025)

UNDERSTANDING THE SCALE OF AMBITION (THE INVESTMENT REQUIREMENT)

The first column lays out the multi-trillion-dollar investment needed across three critical areas:

- Core Infrastructure (\$7-9 Trillion): This represents the foundational "hardware" of a developed economy. It includes building world-class highways, modernizing railways, expanding ports and airports to handle a five-fold increase in trade, and retrofitting our cities with the infrastructure needed to support a larger, richer, and more urbanized population. This is the physical backbone required for a \$30 trillion economy.
- Green Transition (\$3-5 Trillion): This is the investment required to meet India's Net Zero commitments and become a global leader in the green economy. It encompasses the massive build-out of solar, wind, and potentially nuclear power; creating an entire new ecosystem for green hydrogen; and financing the nationwide shift to electric mobility. Why is this important? This is not just an environmental "cost"; it is a strategic investment in a new, sustainable, and technologically advanced economic model that will define global competitiveness in the 21st century.
- Corporate Capex (\$6-8 Trillion): Beyond public infrastructure, this represents the immense private sector investment needed for factories to modernize with robotics and AI, for supply chains to become more resilient, and for Indian manufacturing to become a global hub under the 'Make in India' initiative.

THE PUBLIC FINANCE CONSTRAINT (THE SOBERING REALITY)

The second column of the table asks the most critical and sobering question: How much of this can the government and the domestic banking system realistically fund? The answer is: only a fraction.

- Why is public funding limited? With a high existing public debt-to-GDP ratio, the central and state governments have limited fiscal headroom for massive new spending without risking macroeconomic stability.
- Why can't banks do it all? Forcing the banking system to fund all of this long-term, often risky, infrastructure would be a strategic error of historic proportions. It would:
 1. Recreate the Twin Balance Sheet Crisis: It would concentrate immense, illiquid project risk on bank balance sheets, risking another wave of NPAs.
 2. Crowd Out the Rest of the Economy: It would absorb all available bank credit, starving the crucial MSME sector, agriculture, and millions of consumers of the loans they need for their own growth.

THE "FINANCING GAP": INDIA'S CENTRAL ECONOMIC CHALLENGE

The final column reveals the stark reality and defines the central economic challenge for Indian statecraft for the next two decades. There exists a structural Financing Gap of approximately \$9 to \$12.5 trillion.

Why is this number so important for India?

- It forces a shift in mindset. It makes it mathematically clear that the government's primary role in the economy must evolve. The state cannot be the primary *funder* of the Viksit Bharat mission. Its new

and more powerful role must be to act as a *catalyst* and *architect*—creating the institutions and markets that can attract and channel this vast sum of private and global capital.

- It defines the size of the opportunity. This gap is not a sign of weakness; it is the single greatest investment opportunity in the world over the next two decades. It is the "prize" that the reforms proposed in this paper are designed to win.
- It makes financial market development a national imperative. The table's inescapable conclusion is that building deep, liquid, and trusted domestic capital markets—especially a corporate bond market—is not a niche financial sector issue. It is a first-order strategic priority, as essential to achieving the Viksit Bharat vision as any industrial or foreign policy. Without these markets, the vision is not credibly financed.

In essence, Table 1 is the foundational premise of this entire working paper. It establishes the scale of the problem and proves, with compelling numbers, that developing the institutional capacity to mobilize private capital is the central economic challenge and opportunity for India on its path to 2047.

Why is this table the essential starting point for any serious policy discussion? Because it makes the public finance constraint undeniable. With a high existing public debt-to-GDP ratio and immense competing demands on the budget, it is fiscally impossible for the Indian state to directly fund more than a small fraction—perhaps 15-20%—of the total need. Forcing the banking system to shoulder this burden would be a repeat of past errors, leading to a catastrophic build-up of systemic risk. So, what is the inescapable conclusion? There is a \$6.5 to \$8.5 trillion gap that can only be filled by private and global capital.

This defines the core challenge for Indian statecraft over the next generation. It is not about *if* private capital is needed, but *how* to build the institutional machinery to mobilize, attract, and direct trillions of dollars of it into the green sectors that will define India's future. The following section will diagnose why, under the current policy framework, that capital remains waiting on the sidelines.

SECTION 2: THE MARKET FAILURE TRINITY: WHY PRIVATE CAPITAL REMAINS ON THE SIDELINES

The reason private capital remains on the sidelines is a fundamental misalignment between the needs of green projects and the requirements of private finance, creating the "Green Profitability Gap" via a trinity of interconnected market and governance failures⁶:

1. **The Risk-Return Mismatch (Pillar 1 Focus):** High upfront costs, long payback periods, and technological uncertainties (especially for green hydrogen) make critical green investments "unbankable".⁷

⁶ Khushalani, Heena (2025): "Bridging India's sustainable finance gap", EY India, March, 2025, https://www.ey.com/en_in/insights/climate-change-sustainability-services/bridging-india-s-sustainable-finance-gap (accessed November 20, 2025)

⁷ Benayad, Amine, Jens Burchardt, Veronica Chau, Oliver Dany, Alexander Noßmann, Joachim Ploetz, David Schroeren, Erich Suess, Fritzi Köhler-Geib, Karsten Kohn, Hannah Levinger, Daniel Römer, and Alexander von Kap-herr (2023) "The Climate Financing Roadmap: How Development Finance Institutions Can Build Bridges to Unlock Private Capital" KfW, <https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente-Studien-und-Materialien/The-Climate-Financing-Roadmap.pdf> (accessed November 20, 2025)

2. **The Unpriced Externality (Pillar 2 Focus):** As long as carbon pollution is effectively free, capital will not shift from brown to green at the required scale (Stern, 2007; Nordhaus, 2007). This creates a fundamental Revenue Gap.
3. **Nascent Market Infrastructure & Information Asymmetry (Pillar 3 Focus):** The lack of a deep, liquid green bond market and, critically, the absence of a single, state-backed taxonomy creates uncertainty and a high risk of "greenwashing".⁸ This information asymmetry is a classic "market for lemons" scenario (Akerlof, 1970). Furthermore, this lack of standardized data and metrics is a first-order financial stability problem that prevents regulators like the RBI from assessing climate-related risks across the banking system.⁹

⁸Annapoorna (2025): "Green Finance in India: Importance, Opportunities, Challenges & Key Initiatives", <https://cleartax.in/s/green-finance-in-india> (November 20, 2025)

⁹ Chadha, R., Sivamani G., and Verma, R. (2025). *Carbon Taxes in India: Balancing Growth, Equity, and the Net-Zero Transition*. New Delhi: Centre for Social and Economic Progress, <https://csep.org/technical-note/carbon-taxes-in-india-balancing-growth-equity-and-the-net-zero-transition/> (November 20, 2025)

PART II: WHAT — THE GREEN INVESTMENT BANKER BLUEPRINT

The state must shift to a proactive "Green Investment Banker," built on a three-pillar strategy that simultaneously addresses the market failures and the governance gaps.

SECTION 3: PILLAR 1 – STRATEGIC DE- RISKING: THE POWER OF BLENDED FINANCE

Goal: Use blended finance to surgically absorb high-risk tranches, making "un-bankable" projects viable and maximizing the public-to-private mobilization ratio.¹⁰

MECHANISM: REDUCING THE COST OF CAPITAL

This is the most efficient use of scarce public funds, allowing a small public guarantee to "crowd-in" a much larger pool of private capital.¹⁰ A public de-risking instrument, such as a first-loss guarantee on debt, reduces the credit risk for lenders, lowering the required Cost of Debt and thus significantly lowering the overall Weighted Average Cost of Capital (WACC).

Table 2: The Power of Blended Finance: An Illustrative De- Risking Scenario

For a Hypothetical ₹1,000 crore Green Hydrogen Project

Financial Metric	Scenario A: Purely Private Finance	Scenario B: With Government First-Loss Guarantee (Blended Finance)
Cost of Debt(R_d)	~11.0%	~8.5%
Cost of Equity (R_e)	~18.0%	~16.0%
Weighted Average Cost of Capital (WACC)	~13.7%	~11.3%
Project's Estimated Internal Rate of Return (IRR)	12.00%	12.00%
Project Viability	UN-BANKABLE (IRR < WACC)	BANKABLE (IRR > WACC)
Leverage Ratio	N/A	A ~₹140 crore public guarantee unlocks ₹1,000 crore of private investment.

Table 2 illustrates the core function of the state as a "Green Investment Banker." Let's walk through the story.

¹⁰ Upadhyay, Gaurav; Labanya Prakash Jena; and Sangeeth Raja Selvaraju (2025): "Just Transition Financing Ecosystem: Stakeholder Consultation Report", IEEFA and Grantham Research Institute at LSE, <https://ieefa.org/resources/just-transition-financing-ecosystem-stakeholder-consultation-report> (accessed November 20, 2025)

In Scenario A, the project is "un-bankable." The project's underlying potential return (its IRR) is a solid 12%. However, private investors see high risks and demand high returns to compensate: 11% on debt and 18% on equity. This pushes the project's overall financing cost (its WACC) up to 13.7%. Since the cost to finance the project (13.7%) is higher than the return it generates (12%), it is a money-losing proposition for private capital and will not be built.

In Scenario B, the state intervenes, not by funding the project, but by offering a limited "first-loss guarantee" on a portion of the debt. This single action fundamentally changes the risk calculus. For private banks, the loan is now much safer, so they are willing to lend at a much lower rate of 8.5%. For equity investors, the project is also more stable, so they might accept a lower return of 16%. This dramatically lowers the project's overall WACC to 11.3%. Now, the project's 12% return is comfortably *higher* than its 11.3% financing cost. The project is flipped from "un-bankable" to "bankable." The powerful takeaway is the leverage: a contingent liability of ~₹140 crore for the government has unlocked ₹1,000 crore in private investment.

THE POWER OF CREDIT ENHANCEMENT: UNLOCKING PRIVATE CAPITAL WITH CONTINGENT LIABILITIES

The scenario presented in the preceding paragraph highlights a critical principle in public-private partnerships: the strategic use of contingent liabilities to efficiently deploy public funds and catalyze large-scale private investment. The mechanism employed—a First-Loss Guarantee (FLG)—demonstrates how public intervention can dramatically recalibrate the risk-return profile of a project, effectively flipping it from un-bankable to bankable without direct fiscal expenditure.

1. Analysis of the First-Loss Guarantee (FLG) Mechanism

A First-Loss Guarantee is a credit enhancement tool where a third party (the State, in this case) agrees to absorb the initial, pre-defined losses in a debt portfolio.

A. The ₹140 Crore Contingent Liability

The guarantee of ₹140 crore represents the State's maximum exposure. This amount is derived by calculating the minimum capital cover required to make the debt acceptable to private lenders. Given the total investment unlocked is ₹1,000 crore, the guarantee percentage is calculated as:

$$\text{FLG Percentage} = \text{Contingent Liability} / \text{Total Investment} = ₹140 \text{ crore} / ₹1,000 \text{ crore} = 14\%$$

The FLG shifts the highest-risk portion of the debt portfolio—the first 14% of losses—from the private banks to the State. This commitment is termed a contingent liability because it is a potential obligation; the State pays only if and when defaults exceed a defined threshold, thus avoiding an immediate impact on the budget.

B. Impact on the Cost of Capital

The introduction of the FLG fundamentally alters the project's Weighted Average Cost of Capital (WACC), which is the benchmark against which the project's internal rate of return (12%) is measured. The WACC is defined as:

$$\text{WACC} = (\text{E/M}) \times \text{Re} + (\text{D/M}) \times \text{Rd} \times (1-\text{Tc})$$

The FLG influences the two primary components: the Cost of Debt (Rd) and the Cost of Equity (Re).

- Reduction in Cost of Debt (Rd): The removal of the first-loss risk transforms the loan into a significantly safer asset for the private banks. Consequently, banks lower the risk premium embedded

in the interest rate, resulting in a drop in the cost of debt from an implied, higher rate (Scenario A) to 8.5% (Scenario B).

- Reduction in Cost of Equity (Re): A more stable, de-risked project environment reduces the overall business risk. Equity investors, who bear residual risk, respond by lowering their required rate of return (or hurdle rate) from an implied higher figure to 16% in Scenario B.

2. Quantification of the "Bankable" Status

- The analysis below uses standard project finance assumptions to demonstrate how the State's intervention achieves the desired WACC of 11.3%.

A. Assumed Capital Structure

- To achieve a WACC of 11.3% with the specified rates of return, the underlying capital structure must be leveraged heavily toward debt. We assume a standard corporate tax rate (Tc) of 20% for this calculation. The details of the calculations are given below.

Component	Rate (R)	Tax Adjustment (1-Tc)	Effective Cost	Weight (W)	WACC Component
Equity (E)	Re = 16.0%	N/A	16.00%	30%	4.80%
Debt (D)	Rd = 8.5%	(1 - 0.20)	6.80%	70%	4.76%
Total Project Value (V)				100%	11.56%

Note: Using the 70% Debt / 30% Equity split (a 2.33:1 Debt-Equity Ratio, common in infrastructure), the calculated WACC is 11.56%, which closely aligns with the 11.3% figure cited, validating the core financial assumptions of the scenario.

B. The Leverage Effect

The fundamental takeaway is the extreme leverage of the State's action:

Leverage Ratio = Private Investment Unlocked/Contingent Liability = ₹1,000 crore/₹140 crore is equal to approximately 7.14:1

This 7.14:1 ratio demonstrates that every ₹1 of the State's contingent liability successfully attracted over ₹7 of private capital. This is a far more capital-efficient method of public sector intervention than direct project funding, achieving significant economic outcomes while minimizing the immediate financial burden on the public exchequer.

This is the most efficient use of public resources. So how can this be implemented at scale? India has already created the institutional vehicles. The National Bank for Financing Infrastructure and Development (NabFID) and the Indian Renewable Energy Development Agency (IREDA) must be explicitly empowered and capitalized to act as the primary agents of this blended finance strategy. De-risking is a powerful first step, but a de-risked project with no profitable revenue model still won't attract investment. This brings us to the second pillar.

Operationalizing DFIs: The Execution Vehicles

Institutions like NaBFID, IREDA, and NIIF must be empowered with specialized mandates to execute this strategy¹¹:

Table 3: Operationalizing Blended Finance: Mandates and Mechanisms for Key DFIs

Development Financial Institution (DFI)	GIB Strategic Mandate	Key Financial Instrument	Targeted Risk/Sector
NaBFID	Anchor Institution for Credit Risk Mitigation and Debt Market Deepening	Partial Credit Enhancement (PCE) Guarantees (up to 20% of bonds)	Credit Risk, Long-Tenure Infrastructure Debt, Debt Market Liquidity
IREDA	Driving Scale and Export Competitiveness in Emerging Green Technologies	Foreign Currency Loans via GIFT City IFSC Subsidiary	Technology Risk (Green Hydrogen), Currency Risk, Hedging Costs (250-350 bps savings)
NIIF	Catalyzing Private Equity and Early-Stage Climate-Tech Investment	Anchor Equity, Fund-of-Funds (e.g., like KfW's model)	Cost of Equity (R_e), Technology Risk, Venture Capital Gap

- **NaBFID (Debt Market Deepening):** Must anchor credit risk mitigation through the Partial Credit Enhancement (PCE) facility. By offering guarantees of up to 20% of the bond value, NaBFID boosts the credit rating of infrastructure bonds, enabling SPVs to access capital at significantly lower rates than traditional bank borrowing.
- **IREDA (Export Competitiveness):** Must focus on emerging high-risk technologies like green hydrogen. Its wholly-owned subsidiary at GIFT City must provide foreign-currency loans to export-oriented green manufacturers, which can save developers 250 to 350 basis points on hedging costs. This is a strategic de-risking mechanism targeting currency volatility.
- **NIIF (Equity Aggregation):** Must bridge the equity gap by acting as an anchor investor and creating dedicated Fund-of-Funds for Climate-Tech VC and PE, mirroring successful models like Germany's KfW 'Green Transition Facility'.

There is some prior experience with this. In the Finance Bill 2010-11, a corpus called National Clean Energy Fund (NCEF) was created out of cess on coal produced or imported for the purposes of financing and promoting clean energy initiatives. It was later renamed the National Clean Energy & Environment Fund (NCEEF). It aimed to use public funds to catalyse private investment towards the

¹¹ Steinbach, Dave; Adarsh Varma; Prima Madan; Ashutosh Pandey; Pallavee Khanna; and Smita Nakhooda (2014). "Enhancing India's readiness to access and deliver international climate finance", Shakti Sustainable Energy Foundation, September, 2014 <https://shaktifoundation.in/wp-content/uploads/2014/10/India-Climate-Finance-Readiness-FINAL-30914.pdf> (accessed November 20, 2025)

strategic national goal of clean energy and climate change mitigation. During its active existence, it funded a number of projects¹²

SECTION 4: PILLAR 2 – MAKING GREEN PROFITABLE: THE IMPERITIVE OF SOVEREIGN CARBON PRICING

Goal: Fix the unpriced externality by implementing a credible Carbon Price Mechanism, providing the long-term, predictable policy certainty demanded by institutional investors.

The CBAM Catalyst: A Matter of Fiscal Sovereignty: The EU's Carbon Border Adjustment Mechanism (CBAM) is projected to severely impact the competitiveness of India's key exports, such as steel, where costs could rise by almost 90% by 2034. By establishing a robust domestic price, India ensures that potential revenue—a substantial stream derived from domestic production—is collected by the Indian treasury, rather than being forfeited to the EU³. This is an act of fiscal sovereignty.

Table 4: Illustrative CGE Model - Economic Impact of a National Carbon Price by 2047

Simulating a Gradually Implemented, Revenue-Neutral Carbon Price

Macroeconomic Indicator	Impact by 2047 (Deviation from "No Price" Baseline)
Real GDP Level	-0.5% to +0.2% (Near-Neutral)
Investment in Green Sectors (Renewables, EVs)	+40% to +60%
Investment in Brown Sectors (Coal Power)	-50% to -70%

Elaboration: The Story Behind the Numbers in Table 4

The analysis in Table 4 is based on the results of a standard, multi-sector, dynamic Computable General Equilibrium (CGE) model calibrated for the Indian economy. CGE models are tools to assess the economy-wide impact of major policy changes. Such a model represents the entire economy as a system of interconnected markets and producers. It allows an analyst to introduce a policy "shock" and trace its effects as they ripple through all sectors over time.

Table 4 shows the simulated deviation from a "business-as-usual" baseline in the year 2047 due to the phased implementation of a comprehensive carbon price. The carbon price is modeled as a new tax levied on the use of carbon-intensive inputs (e.g., coal, natural gas) in all production processes. A crucial assumption is revenue neutrality. This means the model assumes that all revenue collected from the carbon price is recycled back into the economy (e.g., through lump-sum transfers to households or by reducing other distortionary taxes). This isolates the structural impact of the relative price change from a simple fiscal contraction. The CGE model reveals that a well-designed carbon price is a sophisticated steering mechanism that triggers a profound structural transformation.

The near-neutral impact on Real GDP is the most critical finding for policymakers. It defuses the argument that climate action must come at the cost of growth. This result is achievable because the model assumes a

¹² National Clean Energy & Environment Fund 2017-18
https://doe.gov.in/files/circulars_document/NCEF_Brief_post_BE_2017_18.pdf and
https://doe.gov.in/files/circulars_document/NCEFF29032017_0.pdf

"revenue-neutral" policy, where the funds collected from the carbon price are recycled back into the economy—by lowering other taxes or funding productive investments—thereby creating a substitution effect rather than a suppression effect.

Implementation: Carbon Tax vs. CCTS Feasibility

While India has committed to the Carbon Credit Trading Scheme (CCTS)¹³, an Emissions Trading Scheme (ETS) typically leads to volatile prices and requires sophisticated Monitoring, Reporting, and Verification (MRV) systems. For the initial phase of the GIB strategy, a gradually rising Carbon Tax offers high predictability (critical for infrastructure financing) and guarantees a scalable revenue stream necessary for funding the Just Transition mandate. An initial tax rate of \$10 per ton of CO₂ equivalent is a suggested baseline for phased implementation.¹⁴

Table 5: Enhanced Feasibility Analysis: Carbon Price Mechanism for India

Metric	Option 1: National Carbon Tax	Option 2: Emissions Trading Scheme (CCTS/ETS)	GIB Recommendation for Anchor Policy
Price Predictability	High (Policy-determined, ideal for long-term certainty) ¹⁴	Volatile (Market-determined, uncertainty for 20-year green projects)	Tax: Establish a predictable floor price signal.
Revenue Generation	High, predictable, scalable (Critical for Just Transition Fund, see fn. 11. op. cit)	Variable, tied to compliance needs (Less reliable for guaranteed public spending)	Tax: Maximizes reliable revenue for recycling (see fn. 11. op. cit)
Just Transition Tool	Excellent (Revenue recycling directly offsets regressivity via lump-sum transfers) ¹⁵	Indirect (Less flexible for immediate compensatory transfers)	Tax: Direct funding link to JT as a policy stabilizer.

The policy's power lies in its impact on investment flows. By making pollution costly, the carbon price fundamentally changes relative profitability. The model shows a massive "great reallocation" of capital. Investment in "brown" sectors plummets as those assets become economically unviable. Simultaneously, private capital, guided by this new price signal, rushes into "green" sectors, which are now more competitive. This directly solves the multi-trillion-dollar financing gap identified in Section 1, using a market signal, not

¹³ Shang, Yanyan (2025) "India's Climate Finance Taxonomy in 2025: An Overview" India Briefing, <https://www.india-briefing.com/news/overview-of-indias-climate-finance-taxonomy-in-2025-37768.html/> (November 20, 2025)

¹⁴Sood, Bhavnidhi, Jennifer Unvala, Joslyn Chittilapally and Shubhra Bhatkulkar (2025): Financing the future: Unleashing India's sustainable finance potential | EY, <https://www.ey.com/content/dam/ey-unified-site/ey-com/en-in/insights/climate-change-sustainability-services/documents/ey-financing-the-future-unleashing-india-s-sustainable-finance-potential-v1.pdf> (November 20, 2025)

¹⁵KfW Capital (2025): "Green Transition Facility",, <https://www.kfw-capital.de/Investment-focus/Investment-programmes/Green-Transition-Facility.html> (accessed November 20, 2025)

public funds, to direct private investment at scale. This is the state as a "Green Investment Banker" creating a profitable revenue model for an entire new class of assets.

The question of institutional design—a carbon tax vs. an Emissions Trading System—is secondary to the main principle of establishing a credible and rising price signal. In conclusion, de-risking makes green projects *possible*. Carbon pricing makes them *profitable*. The final step is to build the market plumbing to channel funds.

SECTION 5: PILLAR 3 – BUILDING THE PLUMBING: THE MANDATORY TRANSITION TAXONOMY

Goal: Architect the market infrastructure to address the Efficiency Gap, reduce information asymmetry, and combat greenwashing.

- Develop a Deep and Liquid Green Bond Market: This creates a dedicated asset class for global ESG-mandated capital.
- Establish a Mandatory, Transition-Focused National Green Taxonomy: This is non-negotiable. It is vital for the RBI and SEBI to manage systemic climate-related financial risk across domestic capital pools.¹⁶
- Transition Focus for Hard-to-Abate Sectors: The Taxonomy must incorporate a "Traffic Light" system (Green, Amber/Transition, Red). The 'Amber' (Transition Finance) criteria must delineate clear pathways for high-emitting sectors—such as steel and cement—rewarding incremental improvements like energy efficiency or the adoption of lower-carbon inputs, thereby enabling them to access finance.¹⁷
- Empower Financial Regulators (RBI, SEBI): The RBI must utilize its existing authority, such as the Priority Sector Lending (PSL) guidelines, to recognize Taxonomy-aligned green and transition project. SEBI must leverage its Green Debt Guidelines to standardize green bond issuance and monitoring.

The first two pillars of our strategy have created a viable product: a green project that has been de-risked and made profitable. Why, then, is a third pillar still necessary? Because a brilliant product is worthless if there is no efficient, trustworthy marketplace to sell it. The final function of the state as a "Green Investment Banker" is to build the "plumbing"—the market infrastructure—that can efficiently connect these bankable green projects with trillions of dollars in global and domestic capital. So what? Without this plumbing, even the best-structured projects will face high transaction costs, investor uncertainty, and a lack of liquidity, preventing finance from flowing at the required scale. This section details the three critical components of this new green finance ecosystem.

First, India must develop a deep and liquid Green Bond market. Why is this specific instrument so important? Because it creates a dedicated asset class that directly appeals to the massive, and rapidly growing, global pool of ESG-mandated capital. These investors are not just looking for any return; they are explicitly looking for a

¹⁶ Upadhyay, Gaurav, and Labanya Prakash Jena (2025): "Financing India's just transition for an inclusive future", The World Economic Forum, <https://www.weforum.org/stories/2025/08/india-just-transition-ecosystem-finance-inclusive-future/> (November 20, 2025)

¹⁷ ICMA – International Capital Market Association (2025): "Climate Transition Bond Guidelines", November 2025 (including updated Appendix), <https://www.icmagroup.org/assets/documents/Sustainable-finance/2025-updates/Climate-Transition-Bond-Guidelines-CTBG-November-2025.pdf> (November 20, 2025)

"green" return. So, what is the consequence of not having a vibrant market? India misses a historic opportunity to tap into this dedicated global savings pool. The "how" involves SEBI and the RBI working in concert to create favorable conditions: streamlining issuance norms for green bonds, providing clear guidelines on the use of proceeds, and crucially, creating the infrastructure for a liquid secondary market where these bonds can be easily traded.

Second, and most critically, the entire ecosystem must be built on a foundation of trust, which requires a mandatory, state-backed National Green Taxonomy. Why is this non-negotiable? Because without a single, scientifically robust, and legally binding definition of what qualifies as "green," the market becomes a classic "market for lemons" (Akerlof, 1970). Investors are unable to distinguish between genuinely impactful projects and "greenwashed" ones, leading them to mistrust all claims and withhold capital. So, what does a national taxonomy achieve? It solves this information asymmetry problem. It provides a "single source of truth" that lowers due diligence costs for investors, gives confidence to international capital, and directs finance towards projects with verifiable environmental benefits, making it the bedrock of a credible green finance architecture.

Third, India's own financial regulators—RBI, SEBI, and IRDAI—must see their role not just as managing risk, but as actively facilitating the development of this new market. Why are they so crucial? Because they regulate the largest pools of domestic institutional capital. The investment guidelines set by IRDAI and PFRDA, for example, determine whether the nation's insurance and pension funds can become the anchor demand for the new green bond market. So, what is the policy imperative? These regulators must continue to evolve their frameworks to explicitly recognize green assets, manage climate-related financial risks on bank balance sheets, and create a supervisory environment that encourages, rather than impedes, the flow of private finance towards national climate goals.

In conclusion, the three pillars of statecraft are an integrated system. De-risking makes green projects *possible*. Carbon pricing makes them *profitable*. But it is this final pillar—building the institutional plumbing of a credible green finance ecosystem—that makes them fundable at scale. It is the final, essential act of the Green Investment Banker, ensuring that capital, now incentivized, has a clear, clean, and efficient pipe through which to flow.

PART III: HOW — THE IMPLEMENTATION ROADMAP

SECTION 6: INSTITUTIONALISING COORDINATION: NCFTC MANDATE AND NATIONAL CLEAN ENERGY FUND (NCEF) LESSONS

Table 6: Institutionalizing Coordination: NCFTC Mandate and NCEF Lessons

NCFTC Mandate Area	Key Function/Output	NCEF Failure Avoidance Strategy
Strategic Oversight	Chairmanship at PMO/Cabinet level for political capital and coherence	Ensures a clear, high-level mandate and accountability, preventing inter-ministerial gridlock. ²
Financial Security	Guarantee multi-year budgetary support for DFI capacity and the JT Fund.	Immunity from fluctuating annual allocations, enabling patient capital and quicker disbursement. ²
Regulatory Alignment	Enforce mandatory compliance with the National Green Taxonomy across RBI/SEBI/IRDAI.	Creates standardized metrics and performance monitoring for green assets, reducing market risk
Social Equity Integration	Oversee the dedicated Just Transition Commission (funded by carbon revenue).	Integrates social equity and regional diversification as a core economic objective. ¹⁶

The blueprint for a state-led green finance strategy does not exist in a vacuum. It must operate within a new and challenging global landscape where climate policy and trade policy are becoming deeply intertwined. Why is this new context so important? Because for the first time, major trading partners, led by the European Union, are implementing a Carbon Border Adjustment Mechanism (CBAM)—effectively a tax on the embedded carbon content of imported goods. So what? This represents a fundamental shift. It is no longer an abstract environmental issue; it is a direct, hard-nosed threat to the competitiveness of India's key export industries and a challenge to the "Make in India" ambition.

The mechanism of the EU's CBAM is designed to prevent "carbon leakage," where European industries might move to countries with laxer environmental laws. It requires importers to buy certificates equivalent to the price of carbon in the EU's Emissions Trading System (ETS) for carbon-intensive goods like steel, aluminum, and cement. Critically, however, the regulation allows the cost of these certificates to be reduced if an explicit and equivalent carbon price has already been paid in the country of origin. This detail is the key to understanding the strategic implications for India.

Without a domestic carbon price, Indian exports of steel and aluminum to the EU will face a significant border levy, estimated to be as high as 20-35% depending on the product's carbon intensity. This would severely damage their competitiveness and directly undermines the goal of growing India's manufacturing exports, a core pillar of the *Viksit Bharat* vision. The threat is not just to existing trade, but to future industrial investment and growth.

However, this external threat can and must be transformed into a domestic catalyst. Why? Because the EU's policy creates a powerful new political economy dynamic *within* India. It provides a compelling, non-environmental, "national interest" argument for implementing Pillar 2 of our blueprint: a domestic carbon

price. So, what is the new strategic calculus? The choice for India is no longer *whether* its industries will pay a price for carbon when exporting to Europe, but *who* will collect the revenue. The argument becomes simple and powerful: it is better for India to collect this revenue through its own domestic carbon tax or ETS and use it to fund our own green transition, rather than letting that same money flow to the European Union's treasury as a border tax.

This reframes the entire domestic debate. A carbon price is no longer just an environmental "cost" to be borne by industry; it becomes a strategic necessity to retain revenue, shield domestic firms from foreign levies, and assert economic sovereignty. So, what is the ultimate takeaway? The CBAM acts as an external forcing mechanism. It accelerates the timeline for the reforms proposed in this paper and provides the political cover needed to implement a national carbon price. It turns a potential crisis into the catalyst for activating a core function of the state as a "Green Investment Banker," making the domestic green economy not just environmentally sound, but also globally competitive.

SECTION 7: DESIGNING THE JUST AND EQUITABLE TRANSITION COMMISSION

The Political Stabilizer: The NCFTC must oversee a dedicated Just Transition Commission, elevating this mandate from fragmented Corporate Social Responsibility (CSR) activity to a coordinated national macroeconomic policy.¹⁶

- **Operational Focus:** The Commission must focus on the most vulnerable, coal-dependent regions, such as Jharkhand, Chhattisgarh, and Odisha¹⁸. It must develop specific Economic Diversification Roadmaps for these regions.¹⁶
- **Funding Mechanism:** The Commission should be anchored by a dedicated and significant portion (e.g., 20–30%) of the predictable revenue generated by the domestic Carbon Price Mechanism.⁴
- **Allocation Strategy:** Funds must be directed towards: 1) Livelihood Support (reskilling and safety nets for displaced workers)¹⁹, 2) MSME Resilience (enhanced credit and training for affected supply chains)³; and 3) Place-Based Investment (using blended finance to pilot clean industry clusters in coal-dependent areas).²⁰

¹⁸ IREDA – Indian Renewable Energy Development Agency (2024): "CMD, IREDA advocates for innovative financing to bridge green hydrogen cost gap", New Delhi, September, 2024, https://www.ireda.in/images/pressrelease/ICGH_green-hydrogen-panel-130924.pdf (accessed November 20, 2025)

¹⁹ 2025 Investment Climate Statements: India - State Department, <https://www.state.gov/reports/2025-investment-climate-statements/india> (accessed November 20, 2025)

²⁰ Srivastava, Shantanu, and Saurabh Trivedi (2022): "Indian financial system needs a green taxonomy for resilience to climate risks", Insights, Climate Finance Insurance South Asia, July, 2022], <https://iefa.org/resources/indian-financial-system-needs-green-taxonomy-resilience-climate-risks> (accessed November 20, 2025)

SECTION 8: POLICY SYNCHRONIZATION AND SEQUENCING (2025-2030) ROADMAP

1. **Phase I: Foundations and Price Signal (2025–2027):** Launch the NCFTC with guaranteed funding.²¹ Implement the initial, gradually rising Carbon Tax (\$10/tonne CO₂).¹⁴ RBI/SEBI finalize and launch the mandatory National Green/Transition Taxonomy¹³.
2. **Phase II: De-Risking and Scale-Up (2027–2029):** NaBFID targets significant PCE-backed debt issuance. IREDA expands its GIFT City foreign currency lending to leverage currency risk savings. The Just Transition Commission launches its first regional pilot programs.¹⁶
3. **Phase III: Regulatory Enforcement and Review (2029–2030):** RBI and SEBI enforce full, Taxonomy-aligned climate risk disclosure for all regulated entities²². The NCFTC conducts a comprehensive review of the carbon price effectiveness against CBAM impact.

A powerful strategy requires a powerful and coherent institution to drive it. The three-pillar blueprint of the "Green Investment Banker"—de-risking projects, pricing carbon, and building financial plumbing—is analytically sound, but its success hinges entirely on execution. Why is a dedicated focus on institutional architecture the necessary final piece of this blueprint? Because the green transition is a quintessential "whole-of-government" mission that cuts across the traditional silos of powerful ministries. Without a central, empowered coordinating body, the risk of policy incoherence and implementation paralysis is not just high; it is a certainty.

One can easily envision the potential for conflict. The Ministry of Power, focused on energy security, might greenlight a new coal-fired plant to meet surging demand, directly contradicting the Ministry of Environment's (MoEFCC) emissions reduction targets. The Ministry of Finance, focused on fiscal prudence, might be hesitant to extend guarantees for new technologies, undermining the de-risking strategy. The Ministry of Commerce, focused on export competitiveness, might resist a domestic carbon price, fearing its impact on industry, even as the MoEFCC sees it as essential for meeting climate goals. So what? For the state to act as a singular "Green Investment Banker," it must first get its own house in order, replacing inter-ministerial competition with a unified national mission.

THE NATIONAL CLIMATE FINANCE AND TRANSITION COUNCIL (NCFTC): A NEW COMMAND CENTER

The existing committee structures, while useful, are insufficient for a mission of this scale, speed, and complexity. The green transition is not just an environmental issue to be managed by the MoEFCC, nor just a financial issue for the FSDC. It is the central economic and strategic project for the nation for the next three decades. Therefore, this paper proposes the creation of a new, high-level, empowered "National Climate Finance and Transition Council," (NCFTC) to be chaired by the Prime Minister's Office to signal its paramount national importance and grant it the authority to override siloed interests.

Its membership would be compact and strategic, comprising the Ministers of Finance, Environment, Commerce, and Power, alongside the Vice-Chair of NITI Aayog and the Governor of the RBI. The Council would

²¹ OECD (2022), Clean Energy Finance and Investment Roadmap of India: Opportunities to Unlock Finance and Scale up Capital, Green Finance and Investment, OECD Publishing, Paris, https://www.oecd.org/en/publications/clean-energy-finance-and-investment-roadmap-of-india_21b6e411-en.html , (accessed November 20, 2025)

²² Jaspal, Mannat, and Manjusha Mukherjee (2024): "Charting pathways for India's carbon market", Observer Research Foundation and Environmental Defense Fund, June 2024, <https://library.edf.org/AssetLink/7dexbrnov23jaql001p6q27pd38a246w.pdf> (accessed November 20, 2025)

be served by a permanent, technically proficient secretariat, drawing expertise from across government. Its singular mandate would be to drive the three-pillar strategy by performing four key functions:

1. Strategic Alignment: Setting the overall direction, including five-year national carbon budgets and the pace of the transition.
2. Policy Coherence: Acting as the final arbiter on inter-ministerial policy conflicts.
3. Resource Mobilization: Overseeing the blended finance strategy and the implementation of the carbon pricing mechanism.
4. Ensuring Equity: Overseeing the work of a dedicated Just Transition Commission.

A CORE MANDATE: THE JUST TRANSITION AS MACROECONOMIC

The transition to a green economy, while creating immense new opportunities, will also impose significant costs on specific communities. Coal-mining regions in states like Jharkhand, Chhattisgarh, and Odisha; workers in carbon-intensive industries like conventional auto manufacturing; and low-income households vulnerable to energy price shocks will bear the brunt of the adjustment. Why is addressing this critical? Because if these social costs are ignored, the entire transition will lose its political legitimacy and face powerful social and political opposition. A "just transition" is therefore a political necessity for the long-term sustainability of the reforms.

But the case for a Just Transition is not only political; it is a first-order macroeconomic imperative. A disorderly transition that creates concentrated pockets of unemployment and economic distress in entire regions would trigger a severe negative demand shock, increase the fiscal burden of social safety nets, and result in a permanent loss of productive human capital. This would act as a significant drag on national GDP. Therefore, proactive public investment in a 'Just Transition'—through regional economic diversification, large-scale reskilling programs, and targeted social support—is not social welfare. It is a crucial macroeconomic insurance policy to prevent a disorderly adjustment from derailing the nation's overall growth trajectory.

So, what is the institutional solution? The new Council must oversee a dedicated "Just Transition Commission," drawing lessons from international examples like Germany's renowned Coal Commission. The German model brought together unions, industry, state governments, and scientists to create a multi-decade, multi-billion-euro plan to phase out coal while simultaneously investing in creating new industries—like research hubs, renewable energy manufacturing, and tourism—in the affected regions. An Indian Just Transition Commission would be tasked with a similar mission: creating detailed "Economic Diversification Roadmaps" for coal-dependent districts and managing a "Skill India for Green Jobs" fund to retrain the workforce for the industries of the future.

A CATALYTIC FIRST STEP: THE INAUGURAL SOVEREIGN GREEN BOND

To move from abstract design to immediate action, the new Council needs a concrete "first mission." The ideal inaugural task would be to orchestrate India's first sovereign green bond issuance on the global market. This single action is a powerful catalyst for three reasons:

It Forces Internal Coordination: The complex process of issuance would force the different ministries to work together. The Ministry of Finance would have to design the financial structure; the MoEFCC would have to certify the "greenness" of the underlying projects against a new national taxonomy; and line ministries like

Power and Transport would have to provide a pipeline of eligible, high-quality projects. It turns the abstract goal of coordination into a tangible, time-bound requirement.

It Sets a National Benchmark: A sovereign issuance, backed by the government, would create a risk-free "green yield curve" for India. This would provide a crucial pricing benchmark against which the entire Indian corporate sector could then issue their own green bonds, helping to kickstart the domestic market.

It Sends a Powerful Global Signal: A successful, large-scale sovereign green bond is the most powerful signal India can send to global capital markets. It announces, in the language of finance, that India is serious about its green ambitions and is officially open for green investment.

THE GEOPOLITICAL DIVIDEND: FROM RULE TAKER TO RULE MAKER

Finally, building this robust domestic institutional architecture has implications that go far beyond India's borders. Why? Because the global "rules of the game" for 21st-century finance—including ESG standards, green taxonomies, and the terms of international climate finance—are being written now, largely in forums and capitals dominated by the developed world. For too long, the Global South has been a "rule taker."

So, what is the ultimate strategic prize? By successfully implementing the "Green Investment Banker" model, India does not just finance its own transition. It builds the credibility and demonstrates the capability to move from being a rule taker to a global rule maker. A successful Indian model—one that pragmatically blends public de-risking with market-based pricing and is sensitive to the demands of a just transition—can be championed as a new template for the developing world. By leading a coalition of emerging economies, India can proactively shape global green finance standards to be more equitable and aligned with developmental needs, for instance by ensuring that global taxonomies recognize the importance of transition finance for developing countries. This is the geopolitical dividend of successful domestic statecraft. It is a critical component of the 'Viksit Bharat' ambition to be a *vishwaguru*—a leading power that helps to shape the global order.

KEY MESSAGE BOX

INDIAN INDUSTRY: FROM COMPLIANCE TO COMPETITIVENESS

For many in the private sector, the green transition is often perceived as a series of new compliance burdens, regulatory risks, and unavoidable costs. This paper argues that this view is dangerously shortsighted. The transition to a green economy is not a threat to be managed; it is the single greatest commercial opportunity of the 21st century.

The statecraft outlined in this paper—the "Green Investment Banker" model—is designed to create the stable and profitable environment that the private sector needs to seize this opportunity.

The de-risking and blended finance mechanisms are designed to make large-scale green infrastructure projects bankable for you.

A predictable, long-term carbon price is not a tax on your business; it is the transparent, market-based "revenue signal" that provides the certainty required to make multi-billion-dollar, multi-decade investments in clean technology.

The choice for India's corporate leaders is therefore clear. You can adopt a defensive posture, fighting a rearguard action against change and risk becoming the high-cost, uncompetitive "zombies" of a decarbonized world. Or, you can embrace this transition proactively, partner with the state to accelerate it, and build the companies that will become the green, competitive global leaders of tomorrow in sectors from green steel and sustainable mobility to energy storage and green hydrogen.

This is not just about sustainability; it is about securing long-term profitability and national industrial leadership for the Viksit Bharat era.

PART IV: CONCLUSION AND THE GEOPOLITICAL DIVIDEND

The financing challenge for India's twin ambitions—"Viksit Bharat" and Net Zero—is not a crisis of scarcity, but a crisis of architecture. The \$6.5–\$8.5 trillion financing gap will not be closed by conventional means. It requires the state to execute a strategic pivot: the metamorphosis from regulator to the Green Investment Banker (GIB).

This institutional shift, anchored by the three-pillar blueprint, is a non-negotiable policy imperative. First, the systematic deployment of blended finance through empowered DFIs (NaBFID, IREDA, NIIF) closes the Risk-Return Mismatch by surgically reducing the WACC of critical infrastructure. Second, the implementation of a sovereign Carbon Tax provides the long-term price signal necessary to close the Revenue Gap and serves as a vital act of fiscal defense against instruments like CBAM. Third, the mandatory National Green/Transition Taxonomy closes the Efficiency Gap by eliminating greenwashing and enabling financial regulators to manage systemic climate risks across the domestic financial system.

The success of the GIB strategy is ultimately contingent on political legitimacy, which is secured by the Just Transition Commission and the transparent recycling of carbon revenue. By funding economic diversification in coal-dependent regions and providing targeted compensatory transfers, the state ensures that the transition is not only effective but also equitable, thus safeguarding social stability.

The ultimate strategic prize is the Geopolitical Dividend. By successfully implementing this pragmatic, integrated, and sovereign model—particularly one that includes clear pathways for hard-to-abate sectors via Transition Finance—India shifts its global position. It moves from resisting Northern-led trade rules to becoming a global rule-maker, establishing a scalable and sustainable template for development that can be adopted by the Global South. The time for passive regulation is over; financing a developed, Net Zero India demands the proactive, strategic statecraft of the Green Investment Banker.

EPILOGUE

The frameworks and strategies detailed in this paper offer a blueprint for navigating a world where the old maps of globalization are no longer reliable. The era of riding a placid, rising tide of global integration is over. The waters ahead are turbulent, defined by geopolitical currents, sudden monetary storms, and the unpredictable squalls of financial volatility. For a nation with India's ambitions, the challenge is not merely to build a faster ship to reach its destination, but to build a vessel that is also profoundly seaworthy—one that is both attractive to global commerce and resilient enough to withstand the inevitable storms.

The success of this endeavor, however, will ultimately depend on more than just the technical design of the policies. It will depend on the wisdom and courage of the policymakers who must steer this ship. The "Fortified Magnet" is not a static state to be achieved, but a dynamic equilibrium that must be constantly maintained. It requires a new institutional mindset: one that rejects the rigid dogmas of the past—both of fearful protectionism and of reckless, unconditional openness—in favor of a pragmatic, evidence-based, and adaptive approach. It demands the foresight to accumulate reserves when capital is abundant, the courage to allow flexibility when pressures mount, and the wisdom to know when to strengthen the fortifications and when to open the gates wider.

The institutions we have discussed—the Ministry of Finance, the RBI, SEBI—and the coordinating council we have proposed are the necessary hardware. But their effectiveness will be determined by the human software: a generation of leadership comfortable with complexity, skilled in managing trade-offs, and united by a shared national vision.

India's journey through this new era is more than just a domestic project. In a world increasingly searching for alternatives to the models offered by the West and by China, a successful Indian approach to financial globalization could have profound global implications. If this great, democratic, and diverse economy can demonstrate that it is possible to be both open and stable, both integrated and sovereign, it will forge a new path. It will offer a powerful and attractive template for other emerging nations seeking to harness the benefits of global capital while safeguarding their own destiny. The task is immense, the vigilance required is perpetual, but by becoming a true "Fortified Magnet," India can not only secure its own prosperity but also light a new way for the developing world.

REFERENCES

Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488–500.

Annapoorna (2025): "Green Finance in India: Importance, Opportunities, Challenges & Key Initiatives", <https://cleartax.in/s/green-finance-in-india> (accessed November 20, 2025)

Benayad, Amine; Jens Burchardt; Veronica Chau; Oliver Dany; Alexander Noßmann; Joachim Ploetz; David Schroeren; Erich Suess; Fritzi Köhler-Geib; Karsten Kohn; Hannah Levinger; Daniel Römer; and Alexander von Kapherr (2023): "The Climate Financing Roadmap: How Development Finance Institutions Can Build Bridges to Unlock Private Capital", KfW, <https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente-Studien-und-Materialien/The-Climate-Financing-Roadmap.pdf> (accessed November 20, 2025)

Chadha, R.; Sivamani, G.; and Verma, R. (2025): "Carbon Taxes in India: Balancing Growth, Equity, and the Net-Zero Transition", Centre for Social and Economic Progress, New Delhi, [https://csep.org/technical-note/carbon-taxes-in-india-balancing-growth-equity-and-the-netzero-transition/](https://csep.org/technical-note/carbon-taxes-in-india-balancing-growth-equity-and-the-net-zero-transition/) (accessed November 20, 2025)

Chani, E. (1992). How Financial Markets Affect Long-Run Growth: A Cross-Country Study. World Bank Policy Research Working Paper No. 843.

Government of India. (2022). India's Updated First Nationally Determined Contribution Under Paris Agreement (2021-2030). Submitted to the UNFCCC.

ICMA – International Capital Market Association (2025): "Climate Transition Bond Guidelines", November 2025 (including updated Appendix), <https://www.icmagroup.org/assets/documents/Sustainable-finance/2025-updates/Climate-Transition-Bond-Guidelines-CTBG-November-2025.pdf> (accessed November 20, 2025)

IMPRI – Impact and Policy Research Institute (2025): "NaBFID 2025: De-Risking India's Infrastructure Pipeline Through Credit Enhancement", <https://www.impriindia.com/insights/nabfid/> (accessed November 20, 2025)

International Energy Agency (IEA). (2021). India's Pathway to an Inclusive and Sustainable Energy Future.

International Monetary Fund (IMF). (Various Years). Global Financial Stability Reports.

IREDA – Indian Renewable Energy Development Agency (2024): "CMD, IREDA advocates for innovative financing to bridge green hydrogen cost gap", New Delhi, September 2024, https://www.ireda.in/images/pressrelease/ICGH_green-hydrogen-panel-130924.pdf (accessed November 20, 2025)

Jaspal, Mannat, and Manjusha Mukherjee (2024): "Charting pathways for India's carbon market", Observer Research Foundation and Environmental Defense Fund, June 2024, <https://library.edf.org/AssetLink/7dexbrnov23jaql001p6q27pd38a246w.pdf> (accessed November 20, 2025)

Jaspal, Mannat, and Neha Khanna (eds.) (2024): "A roadmap for green and transition finance in India", Observer Research Foundation and Climate Policy Initiative, September 2024, <https://www.climatepolicyinitiative.org/publication/a-roadmap-for-green-and-transition-finance-in-india/> (accessed November 20, 2025)

KfW Capital (2025): "Green Transition Facility", <https://www.kfw-capital.de/Investment-focus/Investment-programmes/Green-Transition-Facility.html> (accessed November 20, 2025)

Khushalani, Heena (2025): "Bridging India's sustainable finance gap", EY India, March 2025, https://www.ey.com/en_in/insights/climate-change-sustainability-services/bridging-india-s-sustainable-finance-gap (accessed November 20, 2025)

Kingdon, J. W. (1984). *Agendas, Alternatives, and Public Policies*. Little, Brown.

National Clean Energy & Environment Fund (2017–18): "National Clean Energy & Environment Fund", https://doe.gov.in/files/circulars_document/NCEF_Brief_post_BE_2017_18.pdf; https://doe.gov.in/files/circulars_document/NCEEFF29032017_o.pdf

NITI Aayog. (Various Years). Reports on Sustainable Development Goals (SDGs) and Electric Mobility.

Nordhaus, W. (2007). A Review of the Stern Review on the Economics of Climate Change. *Journal of Economic Literature*, 45(3), 686–702.

OECD (2022): *Clean Energy Finance and Investment Roadmap of India: Opportunities to Unlock Finance and Scale up Capital*, Green Finance and Investment, OECD Publishing, Paris, https://www.oecd.org/en/publications/clean-energy-finance-and-investment-roadmap-of-india_21b6e411-en.html (accessed November 20, 2025)

Reserve Bank of India (RBI). (2022). Discussion Paper on Climate Risk and Sustainable Finance.

Reserve Bank of India (RBI). (2023). Report on Currency and Finance: Towards a Greener Cleaner India.

Seth, S., and Kaushik, H. (2025): "Examining interactions among challenges of green financing in India", *Ecological Civilization*, 2(4), <https://www.sciepublish.com/article/pii/629> (accessed November 20, 2025)

Shang, Yanyan (2025): "India's Climate Finance Taxonomy in 2025: An Overview", *India Briefing*, <https://www.india-briefing.com/news/overview-of-indias-climate-finance-taxonomy-in-2025-37768.html> (accessed November 20, 2025)

Singh, Harman; Aparna Sharma; and Vaibhav Chaturvedi: "EU Carbon Border Adjustment Mechanism: Dominant Perspectives in India", Working Paper, October 2025, <https://www.ceew.in/publications/how-can-india-address-carbon-pricing-challenges-with-the-csam-regulation> (accessed November 20, 2025)

Singh, V. P., and Sidhu, G. (2021): "Investment sizing India's 2070 net-zero target" (Issue Brief), CEEW November 2021, [CEEW-CEF-Investment-Sizing-India's-2070-Net-Zero-Target.pdf](https://www.ceew.in/publications/ceew-cef-investment-sizing-indias-2070-net-zero-target.pdf), (accessed November 20, 2025)

Sood, Bhavnidhi; Jennifer Unvala; Joslyn Chittilapally; and Shubhra Bhatkulkar (2025): "Financing the future: Unleashing India's sustainable finance potential", EY, https://www.ey.com/content/dam/ey-unified-site/ey-com/en_in/insights/climate-change-sustainability-services/documents/ey-financing-the-future-unleashing-india-s-sustainable-finance-potential-v1.pdf (accessed November 20, 2025)

Srivastava, Shantanu, and Saurabh Trivedi (2022): "Indian financial system needs a green taxonomy for resilience to climate risks", Insights, Climate Finance Insurance South Asia, July, 2022, <https://iefa.org/resources/indian-financial-system-needs-green-taxonomy-resilience-climate-risks> (accessed November 20, 2025)

Steinbach, Dave; Adarsh Varma; Prima Madan; Ashutosh Pandey; Pallavee Khanna; and Smita Nakhooda (2014): "Enhancing India's readiness to access and deliver international climate finance", Shakti Sustainable Energy Foundation, September 2014, <https://shaktifoundation.in/wp-content/uploads/2014/10/India-Climate-Finance-Readiness-FINAL-30914.pdf> (accessed November 20, 2025)

Stern, N. (2007). *The Economics of Climate Change: The Stern Review*. Cambridge University Press.

Task Force on Climate-related Financial Disclosures (TCFD). (2017). Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures.

The European Parliament and The Council of the European Union. (2023). Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism.

The Network for Greening the Financial System (NGFS). (Various Years). NGFS Climate Scenarios for central banks and supervisors.

U.S. Department of State (2025): “2025 Investment Climate Statements: India”, <https://www.state.gov/reports/2025-investment-climate-statements/india> (accessed November 20, 2025)

Upadhyay, Gaurav, and Labanya Prakash Jena (2025): “*Financing India’s just transition for an inclusive future*”, World Economic Forum, <https://www.weforum.org/stories/2025/08/india-just-transition-ecosystem-finance-inclusive-future/> (accessed November 20, 2025)

Upadhyay, Gaurav; Labanya Prakash Jena; and Sangeeth Raja Selvaraju (2025): “*Just Transition Financing Ecosystem: Stakeholder Consultation Report*”, Institute for Energy Economics and Financial Analysis and Grantham Research Institute at LSE, <https://ieefa.org/resources/just-transition-financing-ecosystem-stakeholder-consultation-report> (accessed November 20, 2025)

World Bank. (2022). Navigating India’s Green Transition.