





Grantham Research Institute on Climate Change and the Environment



Just Transition Financing Ecosystem: Stakeholder Consultation Report

Stakeholder Insights to Inform the Roadmap for an Inclusive and Equitable Just Transition

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Key Findings

As climate commitments in India are accelerating, the energy transition must also be just—meaning that the shift away from fossil fuels should be inclusive, equitable, and supportive of workers and communities dependent on carbonintensive sectors like coal, steel, cement, and automotive.

The Just Transition (JT) financing ecosystem involves coordination across regulators, ministries, financial institutions, corporates, and civil society, each playing interlinked and critical roles. While sustainable finance in India is evolving, there is a significant gap in funding for social priorities such as worker reskilling, community resilience, and regional economic diversification.

Institutions like the Securities and Exchange Board of India and the Reserve Bank of India can support JT by integrating JT metrics into disclosures, lending norms, and sustainable finance tools like Priority Sector Lending and Sustainability Linked Loans.





Institute for Energy Economics and Financial Analysis

Executive Summary

India is at a defining moment in its journey towards a low-carbon economy. As climate commitments are accelerating, the transition must also be just—meaning that the shift away from fossil fuels should be inclusive, equitable, and supportive of workers and communities dependent on carbon-intensive sectors like coal, steel, cement, and automotives. Ensuring a Just Transition (JT) is particularly important in coal-producing states like Jharkhand, Odisha, and Chhattisgarh, where the economy and livelihoods are deeply intertwined with fossil fuel-based industries.

A robust and inclusive financing ecosystem is essential to manage transition risks and unlock opportunities. India has made progress in sustainable finance. However, financing for the social dimensions of transition—such as worker reskilling, community resilience, and regional diversification—remains limited. This report explores how India can design a JT financing ecosystem that blends environmental ambition with socio-economic inclusion.

Mapping the Just Transition Financing Ecosystem

The JT financing ecosystem involves a wide array of stakeholders, including government ministries, regulators, financial institutions, corporates, and civil society. The roles of these stakeholders are interlinked. Regulatory institutions such as the Reserve Bank of India (RBI) and Securities and Exchange Board of India (SEBI) play a key role in aligning financial flows with sustainability goals, while policy institutions like the Ministry of Finance (MoF), Ministry of Environment, Forest and Climate Change (MoEFCC), and NITI Aayog provide the strategic and fiscal frameworks for transition.

Capital flows can be mobilised through public and private finance, including banks, non-banking financial companies (NBFCs), multilateral development banks (MDBs), and impact investors. Ministries can further influence investment direction through blended finance instruments and incentive structures. Corporates and their supply chains are also critical for implementation, particularly in high-emission sectors.

To understand these interlinkages, we conducted a stakeholder mapping exercise using an Interest-Influence Matrix. Key players such as RBI, SEBI, MoF, and state governments have both high influence and high interest in advancing a JT. Potential allies, including banks and ministries like coal or micro, small, and medium-sized enterprises (MSMEs), hold financial power but currently have limited engagement. Meanwhile, civil society and think tanks act as critical supporters, advocating for inclusion and equity.

Insights from Stakeholder Consultations

We conducted structured consultations, as well as a high-level roundtable with diverse stakeholders, including regulators, government agencies, and corporates, to map ongoing and planned JT



initiatives. These engagements identified key enablers, challenges, and collaboration opportunities to strengthen India's JT financing ecosystem and inform actionable recommendations.

Securities and Exchange Board of India (SEBI)

SEBI has laid a foundation for integrating sustainability into corporate disclosures through frameworks like the Business Responsibility and Sustainability Reporting (BRSR) and environmental, social, and governance (ESG)-linked financial products. However, there is currently no mandate to report on JT indicators. Expanding the BRSR to incorporate social risk and JT disclosures could help direct capital to companies with credible transition strategies.

Reserve Bank of India (RBI)

RBI, through its Sustainable Finance Group, has advanced climate risk management but does not recognise JT as a material financial risk. However, tools like Priority Sector Lending (PSL), sustainability-linked loans (SLLs), and green deposits could be adapted to support JT-aligned investments in vulnerable regions. Assessing the financial risk of stranded assets and socio-economic disruptions could further strengthen RBI's regulatory approach.

Ministry of Finance (MoF)

The MoF plays a pivotal role in embedding JT into India's economic and fiscal architecture. It can integrate JT principles into national green taxonomies, allocate budgetary resources, and establish a dedicated JT Fund to support affected regions and communities.

Ministry of Environment, Forest and Climate Change (MoEFCC)

The MoEFCC can ensure that a JT is aligned with climate and environmental policies. It can leverage initiatives like the Green Skill Development Programme and Green Credit Programme, as well as tap into international funds, such as the Green Climate Fund, to advance workforce transitions, nature-based solutions, and community resilience in fossil fuel-dependent regions.

Corporates

Corporates are gradually integrating JT considerations into business planning. However, high transition costs, limited access to finance for MSMEs, and supply chain constraints remain key barriers. Companies expressed the need for clearer policy guidance, supportive regulations, and structured engagement with investors. There is a growing demand to embed social inclusion metrics in ESG frameworks and incentivise green innovation.

Strategic Roadmap for Advancing Just Transition Financing

The following roadmap outlines actions across stakeholder groups over short-, medium-, and long-term horizons. It offers a phased strategy to integrate JT principles into India's finance and policy architecture:

Stakeholder Group	Short-Term (2025–30)	Medium-Term (2031-35)	Long-Term (2035+)
Financial Regulators (RBI, SEBI)	Integrate JT in BRSR; include JT as principle in sustainable finance products; PSL eligibility for JT finance	Mandate JT disclosures for banks/NBFCs	Create dedicated JT financing windows for affected sectors and regions
Financial Institutions (FIs), MDBs, and Investors	Integrate JT in credit risk models; collaborate with MDBs for concessional finance	Factor JT into lending criteria; scale JT-aligned financial products	Launch MSME financing platforms for energy transition
Government Ministries & Policy Institutions	Define JT framework; introduce green fiscal incentives; align taxonomy	Establish national JT fund; build state capacity for climate finance	Prepare coal phase-out with plans for repurposing and reskilling; design frameworks to support communities and workers dependent on fossil fuel industries
State Governments	Conduct socio-economic impact studies; launch JT pilot projects	Operationalise JT funds; launch skilling and employment programmes; integrate JT into long-term state development plans	Use tax revenues from green sectors to support affected regions
Corporates	Map displacement risks; support MSMEs; embed JT in transition plans	Partner on labour policy reforms; launch supply chain reskilling initiatives	Co-develop and fund public- private JT platforms and data sharing systems
Civil Society & Academia	Assess JT risks; build evidence base; engage communities	Develop fiscal planning tools and local models	Monitor transition outcomes and lead community resilience initiatives

Way Forward

India's transition to a net-zero economy must be a just and inclusive one. This report provides a strategic framework for embedding social equity into the financial architecture guiding the



energy transition. Early regulatory integration, such as JT metrics in disclosures and lending norms, can lay the groundwork for long-term structural change.

Ultimately, a successful JT will require sustained coordination between ministries, regulators, state governments, corporates, and civil society. Investing in capacity building, financial innovation, and inclusive planning will ensure that India's energy transition not only mitigates climate risk but also empowers its people and regions for a more equitable future.

Introduction

India stands at a pivotal moment in its journey toward a sustainable and equitable future. As the nation accelerates its energy transition to meet its commitments under the Paris Agreement, it faces a critical challenge of ensuring that the transformation is not only environmentally sustainable but also socially just. Achieving a Just Transition (JT)—one that balances climate action with the protection of vulnerable communities—requires a robust and inclusive financing ecosystem.

This need is particularly urgent in coal-dependent states like Jharkhand, Odisha, and Chhattisgarh, where coal has long served as the backbone of regional economies and employment. The gradual shift from coal presents significant risks to livelihoods and economic stability. At the same time, carbon-intensive sectors such as steel, cement, and automotive are undergoing deep structural transformations to align with low-carbon development pathways. These shifts will further challenge the workforce and communities that rely heavily on these industrial clusters. Financing this transition requires well-designed, inclusive mechanisms that address the socio-economic realities of affected regions while supporting environmental sustainability.

India's sustainable finance ecosystem is gradually evolving, with over US\$100 billion¹ in sustainable debt instruments issued. However, financing remains limited for social sector investments critical to a JT. Bridging this gap requires aligning international best practices in sustainable finance with India's unique developmental context.

A robust JT financing ecosystem depends on coordinated efforts from various stakeholders, including regulators, ministries, and the private sector. Institutions like the Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI), and the Ministry of Finance (MoF) facilitate capital flow and fiscal planning, while NITI Aayog and Ministry of Environment, Forest and Climate Change (MoEFCC) guide policy alignment. Simultaneously, corporates are adopting Environmental, Social, and Governance (ESG) practices and shifting towards low-carbon models.

To strengthen this collaborative effort, sustained stakeholder engagement is critical. This report draws on insights from a comprehensive stakeholder consultation process and a high-level multi-stakeholder roundtable held in Mumbai. It captures perspectives across the policy, regulatory, and financial spectrum to build a clearer picture of the current JT financing landscape.

The report is divided into three key parts:

1. **Scoping the Just Transition Financing Ecosystem:** This section maps the current landscape, tracing the flow of financial and policy inputs, and analysing how key stakeholders are positioned using an interest-influence matrix.



¹ Bloomberg New Energy Finance. Sustainable Finance.

- 2. Insights from Stakeholder Consultations: Based on extensive dialogues with financial regulators, government ministries, industry bodies, and development partners, this section captures key insights, identifies relevant schemes and initiatives, and synthesises feedback into an analytical framework. The framework includes enablers, challenges, actionable recommendations, and opportunities for collaboration. Learnings from the high-level multi-stakeholder roundtable in Mumbai are integrated to reflect collective thinking and convergence points.
- 3. **Proposed Roadmap for Strengthening the Just Transition Financing Ecosystem:** The final section outlines a set of short, medium, and long-term action points to advance a more inclusive, coordinated, and effective financing framework for JT in India. This includes strategic recommendations to operationalise these actions.

With this report, we aim to contribute to the ongoing national dialogue on JT financing by highlighting concrete pathways for collaboration and systemic change.

JT Financing Ecosystem Structure

Central to the JT financing ecosystem is the coordination between financial flows, regulatory mandates, and policy influence—all of which are necessary to align national development with sustainability goals. The following block diagram serves to map out these relationships, highlighting how financial oversight, policy development, and project implementation converge to support JT efforts, particularly in regions dependent on fossil fuels.

Interconnections and Policy Flows

The JT financing ecosystem is underpinned by strong policy coordination among regulators, government ministries, and planning institutions. Regulatory bodies like SEBI and RBI can guide financial practices to align with environmental² and social objectives,³ while NITI Aayog facilitates coherence between climate action,⁴ industrial transition, and social welfare policies. NITI Aayog acts as a strategic adviser to key ministries, such as the MoF, the Ministry of Coal (MoC), the Ministry of Power (MoP), and the Ministry of New and Renewable Energy (MNRE), and can help develop inclusive financial strategies like JT funds and redevelopment schemes in coal-heavy regions. These policy flows are essential to align public investment programmes and private capital incentives with national sustainability and equity goals.



² Securities and Exchange Board of India (SEBI). <u>Guidelines for the Issuance and Listing of Green Debt Securities</u>. SEBI, May 2017.

³ Reserve Bank of India (RBI). <u>Updated Priority Sector Lending (PSL) Guidelines</u>. RBI, June 2024.

⁴ NITI Aayog. Just Energy Transition Report. NITI Aayog, 2022.

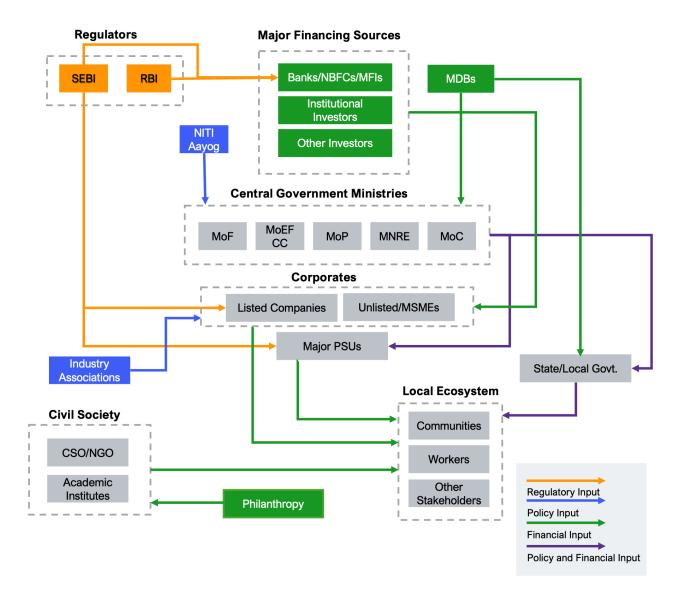


Figure 1: Just Transition Financing Ecosystem Structure⁵

Financial Flows and Investment Pathways

Financial flows in the JT ecosystem can be mobilised through a mix of public and private sources, including commercial banks, Non-Banking Financial Companies (NBFCs), Multilateral Development Banks (MDBs)⁶ like the World Bank and Asian Development Bank (ADB), institutional investors,⁷ and

⁶ World Bank. <u>Just Transition Issues for Central Banks and Financial Regulators</u>. World Bank, 2022.



⁵ The JT financing ecosystem includes other interconnections, but representing all of them in the diagram would make it overly complex. Therefore, only major interconnections have been depicted to maintain clarity and simplicity.

⁷ Organisation for Economic Co-operation and Development (OECD). <u>Scaling Up the Mobilisation of Private Finance for Climate</u> <u>Action in Developing Countries</u>. OECD, 2023.

philanthropic organisations.⁸ RBI and SEBI may influence how this capital is directed through green lending norms, ESG disclosure requirements, and sustainable finance instruments. Ministries and MDBs can blend concessional and commercial finance to lower investment risks and attract private participation. At the local level, these funds can be deployed through implementation agencies to support green projects, community resilience, and worker retraining—ensuring that the transition is both equitable and economically sustainable.

Stakeholder Mapping for Just Transition Financing in India

As part of the initial scoping study for developing a JT financing ecosystem in India, we conducted a stakeholder mapping exercise using the Interest-Influence Matrix.⁹ This step was essential to understand the ecosystem by analysing stakeholders' interests and their levels of influence.¹⁰

The mapping process focused on identifying stakeholders with an active interest in or significant influence over the ecosystem. We evaluated their interest based on their demonstrated initiatives and mandates related to JT or engagement in related areas, such as social responsibility and equity. Simultaneously, we assessed their influence by their capacity to shape or control the flow of finances within the JT financing ecosystem.

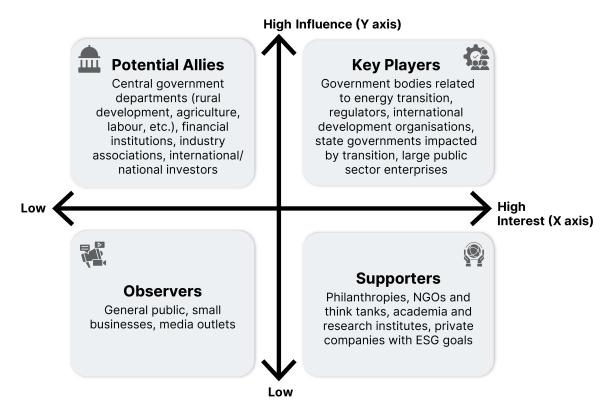
This matrix categorises stakeholders into four quadrants: High Interest–High Influence, High Interest– Low Influence, Low Interest–High Influence, and Low Interest–Low Influence. Each quadrant represents a unique set of stakeholders with distinct roles and strategies for engagement.

⁸ The Rockefeller Foundation. <u>Scaling the JETP Model – Prospects and Pathways for Action</u>. Rockefeller Foundation, 2024.

⁹ Freeman, R. E. Strategic Management: A Stakeholder Approach. Cambridge University Press, 1984.

¹⁰ Brugha, R., & Varvasovszky, Z. "Stakeholder Analysis: A Review." Health Policy and Planning, 15(3), 239-246, 2000.

Figure 2: Just Transition Stakeholder Mapping



High Interest – High Influence (Key Players)

These stakeholders are critical for driving the JT financing ecosystem. They have a vested interest or mandate in the transition and significant influence over policy, funding, and implementation. These stakeholders can set the agenda, allocate resources, and create an enabling environment for JT financing. Their decisions influence policy direction,^{11,12} financial flows,¹³ and implementation frameworks.¹⁴ High-interest and high-influence stakeholders can shape the success of JT financing by developing supportive regulations, mobilising funds, and ensuring coordination across sectors.

Stakeholders:

- Government Bodies: MoF and NITI Aayog
- Regulators: RBI and SEBI
- International Development Organisations: World Bank, ADB, and International Finance
 Corporation

¹¹ Securities and Exchange Board of India (SEBI). <u>Guidance Note for Business Responsibility & Sustainability Reporting</u>. SEBI, 2021.

¹² Securities and Exchange Board of India (SEBI). <u>Disclosure Requirements for ESG Mutual Funds</u>. SEBI, 2023.

¹³ Reserve Bank of India (RBI). <u>Report on Climate Risk and Sustainable Finance</u>. RBI, 2023.

¹⁴ Asian Development Bank (ADB). <u>Just Transition Framework</u>. ADB, 2023.

• State Governments: Coal-dependent states such as Jharkhand, Chhattisgarh, and Odisha

Low Interest – High Influence (Potential Allies)

These stakeholders hold significant influence over the flow of finances essential for a JT but show limited interest due to the absence of a direct mandate or alignment with their primary objectives. However, they can be motivated to increase their participation and resource allocation in JT activities through strategic policy interventions,¹⁵ regulatory frameworks,¹⁶ and awareness-building efforts.¹⁷ The term "potential allies" aptly captures their position, as their involvement can be cultivated to support and advance JT initiatives effectively.

Stakeholders:

- Central Government Departments: MoEFCC, MoC, MNRE, Ministry of Labour and Employment, Ministry of Rural Development, etc
- **Financial Institutions:** Public sector banks (e.g., State Bank of India, Punjab National Bank), large private banks (e.g., HDFC, ICICI)
- International and National Investors: Sovereign Wealth Funds, private equity and venture capital firms, institutional investors, insurance companies (e.g., Life Insurance Corporation)
- Large Public Sector Enterprises: Coal India Limited, Power Finance Corporation, Rural Electrification Corporation, National Thermal Power Corporation
- Private Companies: Tata Steel, JSW Group, Mahindra Group etc

High Interest – Low Influence (Supporters)

These stakeholders are passionate about JT financing but lack the authority or resources to drive systemic change. They act as advocates and contributors to the discourse. Supporters can provide research,¹⁸ grassroots advocacy, and technical expertise. Their involvement ensures the inclusion of diverse perspectives and localised insights in the transition. While their direct impact on policy and funding is limited, their advocacy and technical inputs can guide larger stakeholders and build public and community support.

Stakeholders:

- **NGOs and Think Tanks:** Centre for Policy Research, The Energy and Resources Institute, Institute for Energy Economics and Financial Analysis, Prayas Energy Group, etc
- **Civil Society Organisations:** Community-based organisations in coal regions, worker unions, and local advocacy groups

¹⁵ NITI Aayog. India's Energy Transition Roadmap. NITI Aayog, 2023.

¹⁶ State Bank of India (SBI). <u>Sustainability & ESG Policy</u>. SBI, 2022.

¹⁷ Ministry of Coal, Government of India. <u>Just Transition Planning in India</u>. Ministry of Coal, 2023.

¹⁸ Institute for Energy Economics and Financial Analysis (IEEFA). <u>Navigating the fiscal implications of a just transition</u>. IEEFA, 2023.

- Academia and Research Institutes: Indian Institutes of Technology, Indian School of Business, etc
- Industry Associations: Federation of Indian Chambers of Commerce & Industry, Confederation of Indian Industry

Low Interest – Low Influence (Observers)

These stakeholders show limited interest and have minimal influence over the ecosystem, but could become more engaged as the landscape evolves. Observers represent potential allies or beneficiaries in the long term. Their involvement could grow with increased awareness and relevance. Their increased participation could support public discourse and broaden the ecosystem's reach.

Stakeholders:

- General Public: Urban population outside coal regions and non-coal state governments
- Small Businesses: Micro, small and medium enterprises (MSMEs) outside coal or renewable sectors
- Media Outlets: General news platforms (non-specialised)

Strategies for Engagement

Effectively engaging stakeholders across all quadrants of the Interest-Influence Matrix is crucial for building a robust JT financing ecosystem. Each quadrant requires tailored strategies:

- 1. **Engage Key Players:** High-interest, high-influence stakeholders are pivotal to driving the JT agenda. Collaborative efforts such as forming joint task forces, organising high-level dialogues and partnering on pilot projects or policy development are essential. These actions will leverage their decision-making power and ensure alignment of objectives.¹⁹
- Align Potential Allies: Low-interest, high-influence stakeholders often need a clear demonstration of how JT financing aligns with their objectives. Building awareness through targeted workshops, sharing success stories and crafting incentives, such as tax benefits or policy frameworks²⁰ can garner their interest and support. Collaborative initiatives emphasising shared value will further ignite their interest.
- 3. **Empower Supporters:** High-interest, low-influence stakeholders can amplify the ecosystem's reach and effectiveness. Providing them technical assistance, capacity-building programmes and financial support will enhance their ability to contribute. Creating networking opportunities with key players will enable them to indirectly influence broader systemic change.

¹⁹ International Labour Organization. Enhancing the social dimension in transition finance: towards a just transition. ILO, 2024.

²⁰ Finance For Tomorrow by Europlace. <u>Stakeholders in The Just Transition</u>. 2021.

4. Educate Observers: Low-interest, low-influence stakeholders require gradual engagement to raise their awareness and involvement. Media campaigns, public events and educational programmes can highlight the significance and benefits of JT financing. Showcasing tangible success stories and emphasising potential economic and social benefits to their constituencies can foster long-term interest.

The first phase of engagement is focused on some key stakeholders from the High Interest and High Influence quadrant, including SEBI, RBI, the MoF, the MoEFCC and NITI Aayog. These entities are essential for establishing the policy and regulatory framework required for JT financing. In addition, state governments and corporates, as primary implementers on the ground, will play a vital role. While engagement with state governments is already underway, corporates will also be included in this phase to ensure a comprehensive approach. Their involvement will provide a balanced representation of policymaking and implementation perspectives, ensuring that strategies are practical and effective.

Key learnings from stakeholder discussions

We conducted structured stakeholder consultations with entities identified through the scoping exercise and stakeholder mapping. These stakeholders represented a diverse cross-section, including regulators, government agencies and corporates. Each consultation was carefully designed and guided by tailored questionnaires to address specific institutional roles and information needs, ensure inclusive participation, and capture diverse perspectives.

The consultations were informed by detailed background research and aimed at understanding both the current activities and the potential contribution of each stakeholder to the JT agenda. Through these engagements, we mapped the various JT-aligned initiatives being undertaken or planned by these actors.

This section presents a detailed overview of the stakeholder initiatives and assesses their relevance to various dimensions of a JT. It also examines the potential of these stakeholders to strengthen the JT financing ecosystem by identifying enabling levers (such as policy innovations, financial instruments, and institutional capacities), as well as key challenges, including coordination gaps, capacity limitations, and the need for targeted financial flows.

In addition to individual consultations, we facilitated a high-level roundtable to present and discuss the key findings emerging from these interactions. This roundtable served as a platform to validate the insights gathered, foster cross-sectoral dialogue, and explore pathways for collaboration. The outcomes of this roundtable are also documented in this chapter and contribute to the formulation of actionable recommendations aimed at advancing an inclusive JT financing framework in India.

Securities and Exchange Board of India (SEBI)

The capital market is critical as it provides long-term capital to corporations for business expansion it can influence the allocation of capital into businesses that create long-term value. As "Just Transition" is becoming an increasing barometer for investment decision-making and capital allocation, investors should understand how corporations consider it in their business planning and strategic decisions. SEBI can support investors by creating enabling frameworks (e.g. Just Transition Disclosure framework) and products. Recent analyses highlight how initiatives by SEBI, such as developing the Business Responsibility and Sustainability Reporting (BRSR) framework and developing sustainable finance products (e.g. ESG funds, green bonds), can drive transformation. The integration of JT in BRSR's disclosure framework and the creation of suitable financial products can indirectly accelerate capital flows to companies with credible transition plans, including JT plans. Indian corporates are poised to play a vital role in shaping a JT as they navigate their transition journeys over the coming decades.

Additionally, international and domestic investors focus on allocating capital and engaging with companies on JT strategies.²¹ By embedding JT principles, capital market regulators can promote transparency, drive sustainable investments, and ensure that economic shifts are equitable and socially responsible. Some of SEBI's key initiatives include:

SN	Initiative	Role initiative can play in JT
1	Business Responsibility and Sustainability Report (BRSR)	Introduced in 2021, the BRSR ²² mandates the top 1,000 listed companies in India to disclose their ESG performance. This framework requires comprehensive reporting on ESG aspects, ensuring companies provide insights into their sustainability efforts.
		The BRSR framework encompasses nine principles, most of which emphasise social metrics related to workers, supply chains, employees and customers. These principles require reporting on workers' wellbeing, promoting reskilling, and reorganising within companies.
		SEBI can enhance BRSR's role in JT by:
		 Introducing explicit JT indicators, such as reskilling programmes for fossil fuel sector workers.
		• Encouraging disclosures on the socio-economic impacts of decarbonisation efforts.
		• Aligning BRSR reporting with global JT frameworks like ILO's guidelines on JT.

Table 1: Key Initiatives (SEBI)

²¹ Just Transition Finance Lab. <u>Sustainable finance for a just transition in India: the role of investors</u>. 2024.

²² SEBI. Business Responsibility & Sustainability Reporting. SEBI, 2021

2	Green Debt Securities Framework	 SEBI's guidelines on green bonds, introduced in 2017,²³ established a robust regulatory framework for issuing green debt securities in India. The existing green debt securities framework mandates the disclosure of social risks. However, it does not explicitly require issuers to address social risks arising from the transition. Framework can be improved by: Mandating all green debt issuers to disclose potential adverse effects on communities and workers arising from the transition and outline mitigation strategies. Introducing a JT label within the green debt market to channel capital towards projects that ensure equitable socio-economic outcomes. Aligning green debt disclosure requirements with the evolving Business Responsibility and Sustainability Reporting (BRSR) framework to enhance consistency in social impact assessment.
3	ESG Rating Products/Providers	 SEBI's regulations on ESG rating products and providers²⁴ are critical for ensuring transparency, credibility, and accountability in assessing corporate sustainability performance. ESG ratings influence investment decisions, but current methodologies lack comprehensive social equity criteria essential for JT. To strengthen their role in the JT, SEBI can: Mandate ESG ratings to assess corporate action on worker transitions, community benefits, and social safeguards. Require rating agencies to disclose how they account for JT in their methodologies. Ensure that ESG ratings integrate sector-specific transition risks, particularly for high-carbon industries.
4	ESG Investment Products	 SEBI's regulations on ESG investment products²⁵ aim to standardise disclosures and ensure that sustainability-focused investment products deliver measurable impact. ESG investment products direct capital towards sustainable businesses but need stronger linkages with JT principles. To better align them with JT, SEBI can: Mandate funds labelled as "ESG" to disclose how they integrate inclusive transition for workers and communities in their investment strategies. Promote investment strategies that include reskilling initiatives, social protection programmes, and equitable energy access.

²³ SEBI. <u>Disclosure Requirements for Issuance and Listing of Green Debt Securities</u>. SEBI, 2017.



 ²⁴ SEBI. <u>SEBI's regulations on ESG rating products and providers</u>. SEBI,2023.
 ²⁵ SEBI. <u>Balanced Framework for ESG Disclosures</u>, Ratings and Investing, SEBI, 2023.

		Encourage thematic funds dedicated to social equity (e.g. JT) alongside environmental goals.
5		A Social Stock Exchange (SSE) ²⁶ is a platform designed to facilitate funding for social enterprises and non-profit organisations by enabling them to raise capital through market-based mechanisms. Unlike traditional stock exchanges, SSEs focus on impact-driven organisations that prioritise social and environmental goals alongside financial returns.
	Social Stock Exchange (SSE)	SSE can facilitate funding for enterprises that provide alternative livelihoods to coal- dependent workers and local economies. It can also provide an investment avenue for philanthropists and development finance institutions to support JT projects. It can be improved by:
		 Allowing blended finance models to encourage broader participation of impact investors. Facilitating an exclusive social bond for JT to impart reskilling and community resilience in coal-dependent communities. Developing standardised reporting for socio-economic and environmental impact
		to enhance investor confidence.

Case Study: Boosting Corporate Disclosure on Just Transition through India's BRSR Framework

As India embarks on its energy transition, aligning climate goals with social inclusion is critical. A key enabler for this alignment is improved corporate disclosure on how companies are managing the risks and opportunities of a JT. To support this, SEBI mandated the BRSR framework in 2021 for the top 1,000 listed companies.

While BRSR does not explicitly mention "Just Transition", it provides a valuable structure for companies to report on social issues integral to it, such as employment, skills, worker well-being, and community impact. Grounded in India's economic context, BRSR allows companies and investors to assess how climate action intersects with social outcomes. It also demonstrates that advancing JT need not require new frameworks—existing tools like BRSR can be adapted to reflect the social dimensions of sustainability.

To understand BRSR's relative strengths, it was assessed alongside 11 global and national disclosure frameworks using a "heatmap" approach. This comparison looked at how well each framework covers key just transition priorities: Maximising social opportunity, minimising social risk, enabling social dialogue, and supporting leadership for systemic change.



²⁶ SEBI. <u>Framework on Social Stock Exchange</u>. SEBI, 2023.

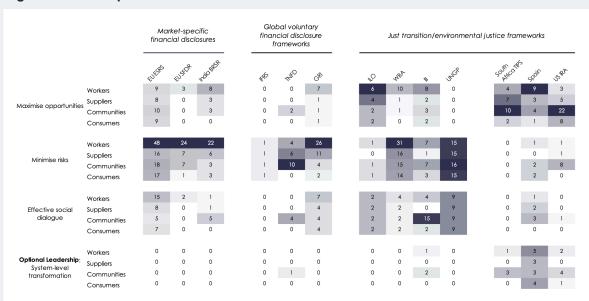


Figure 3: Heatmap Visualisation of Just Transition Metrics Distribution

Abbreviations: ESRS = European Sustainability Reporting Standards; SFDR = Sustainable Finance Disclosure Regulation; BRSR = Business Responsibility and Sustainability Reporting; IFRS = International Financial Reporting Standards, S2; TNFD = Taskforce for Nature-Related Financial Disclosures – recommendations; GRI = Global Reporting Initiative; ILO = International Labour Organization; WBA = World Benchmarking Alliance; UNGP = United Nations Guiding Principles on Business and Human Rights; TIPS = Trade and Industrial Policy Strategies ; US IRA = United States Inflation Reduction Act.

The assessment found that BRSR performs reasonably well, particularly on worker-related metrics. However, it lags in promoting social dialogue, a critical element for inclusive decision-making involving workers, communities, and other stakeholders.

Despite this gap, BRSR serves as a strong starting point for integrating JT considerations into ESG reporting. It helps companies communicate how they are managing the downside risks of transition, like job losses or supply chain disruptions, as well as how they are leveraging new opportunities.

Source: Just Transition Finance Lab, Sustainable finance for a just transition in India: the role of investors, 2024.

Analysis Matrix

SEBI's regulatory efforts in sustainable finance, including frameworks like BRSR, green bonds, and MRV systems, have enhanced transparency and market engagement. These mechanisms provide a strong foundation for integrating JT principles, ensuring that financial flows align with both environmental and social objectives. By fostering structured ESG reporting and promoting responsible investment practices, SEBI has created opportunities for businesses and investors to incorporate sustainability considerations.



A remaining key challenge is the absence of direct integration of JT metrics within current regulations, making it difficult to measure and mitigate social risks linked to the transition. Additionally, businesses may face difficulties in balancing compliance costs with meaningful implementation of JT principles. To address this, SEBI can strengthen its regulatory frameworks by embedding JT-related disclosures, ensuring alignment with global sustainability trends. Collaboration with think tanks, ESG rating agencies, corporate leaders, and institutions like NISM can accelerate the mainstreaming of JT considerations in India's financial markets. Integrating global best practices and leveraging data-driven insights will be crucial in shaping policies that drive inclusive and equitable transition outcomes.

The following matrix provides an overview of the key positive levers, challenges, recommendations, and potential areas for collaboration that can drive the mainstreaming of JT within SEBI's regulatory framework.

Figure 4: Analysis Matrix (SEBI)



Positive Levers

- SEBI's proactive role in regulating and promoting sustainable finance.
- Enhanced transparency in ESG reporting through frameworks like BRSR.
- Creating market-led instruments like transition bonds and social stock exchange can open up new opportunities to drive JT outcomes.

Challenges

- Absence of JT-specific metrics in existing regulations.
- Balancing compliance costs with the effective implementation of JT principles.
- Limited alignment between sustainable finance regulations and social impact considerations.



Securities and Exchange Board of India (SEBI)



Recommendations

- Integrate JT-specific metrics and disclosures into SEBI's existing frameworks.
- Strengthen collaboration with corporate leaders, ESG investors, and international organisations.
- Align regulations with global JT guidelines and principles to enhance market credibility and investor confidence.

Potential Areas for Collaboration

- Think tanks: Leverage international case studies to refine India's approach to JT.
- International Organisations: Partner with SEBI and corporates to develop JT-linked assessment criteria.
- NISM and Training Institutions: Collaborate with NISM and other capacity-building institutions to integrate JT into financial education and training programmes.



Reserve Bank of India (RBI)

The RBI plays a pivotal role in shaping the JT financing ecosystem, leveraging its mandate to foster financial stability and support sustainable economic development. Since its initial guidance on Corporate Social Responsibility, Sustainable Development and Non-Financial Reporting – Role of Banks²⁷ dated 20 December 2007, the RBI has steadily advanced its efforts, culminating in establishing the Sustainable Finance Group in 2021.²⁸ This group leads initiatives on climate risk and sustainable finance, signalling the RBI's increasing commitment to addressing environmental challenges.

As part of its broader role, the RBI can deploy tools, such as prudential regulations and credit guidance to mitigate climate risks while aligning financial flows with India's developmental priorities. The central bank can adapt these tools to ensure financing supports inclusive economic growth, enhances resilience and addresses socio-economic disparities arising from the transition to a low-carbon economy. By embedding JT principles into its sustainable finance roadmap, the RBI can foster a financial system that mobilises green capital while protecting vulnerable stakeholders, ensuring that India's energy transition is equitable and sustainable.

SN	Initiative	Role it can play in JT	
1	Draft Disclosure Framework on Climate-related Financial Risks (2024)	 In 2022, the RBI released a discussion paper on climate risk and sustainable finance,²⁹ identifying climate risk as a systemic threat to the financial system. It establishes a structured approach for financial institutions to disclose climate-related financial risks, reinforcing transparency. It also encourages stress testing for banks, aiding in risk assessment related to climate change impacts. Its role can be improved by: Incorporating socio-economic impact disclosures alongside climate risks to assess how financial institutions are supporting a JT. Encouraging banks to disclose their exposure to high-carbon sectors and strategies for financing alternative livelihoods in affected regions. 	
2	Survey on Climate Risk and Sustainable Finance	To better understand the state of climate risk management within Indian banks, RBI conducted a comprehensive survey on climate risk and sustainable finance. ³⁰ The survey helped to identify gaps in climate risk integration within Indian banks, highlighting that only 30% have integrated climate risks into their frameworks. It can serve as a baseline to track improvements in sustainable finance practices across the banking sector.	

Table 2: Key Initiatives (RBI)



²⁷ RBI. Corporate Social Responsibility, Sustainable Development and Non-Financial Reporting – Role of Banks. 20 December 2007.

²⁸ Ministry of Finance. <u>Economic Survey 2021-22</u>. 15 January 2022.

²⁹ RBI. <u>Draft Disclosure framework on Climate-related Financial Risks</u>, 2024. 28 February 2024.

³⁰ RBI. <u>Report on the Survey of Climate Risk and Sustainable Finance</u>. July 2022.

		 To include JT principals in the next survey, the RBI can: Expand the survey to assess how banks are incorporating JT considerations in lending and investment policies. Promote capacity-building initiatives to help financial institutions develop JT-aligned risk management frameworks.
3	Green Deposits Program	 The RBI's green deposits programme³¹ enables banks and financial institutions to mobilise funds specifically for environmentally sustainable projects. The programme mobilises capital for sustainable projects, encouraging financial institutions to direct resources towards renewable energy and other green initiatives. It also enhances private sector participation in financing climate solutions. To strengthen the role of green deposits in JT, the RBI can: Ensure that green deposit funds also support projects addressing social equity concerns, such as reskilling programmes for displaced workers and infrastructure in transitioning coal regions. Develop clear JT-aligned eligibility criteria to guide banks in financing projects that balance environmental and socio-economic sustainability.
4	Priority Sector Lending	 Priority Sector Lending (PSL)³² is a key regulatory initiative by the RBI that mandates banks to direct a certain percentage of their total lending towards identified sectors that are crucial for the economy and social development, including agriculture, MSMEs, and renewable energy. It also ensures financial inclusion and accessibility of affordable credit. Financial allocation to JT-relevant sectors can be increased by: Expanding PSL criteria to include projects that support workers and communities transitioning away from fossil fuels. Introducing incentives for banks to finance worker retraining, green entrepreneurship, and infrastructure development in coal-dependent states.
5	Allowing Sovereign Green Bonds as SLR- Eligible Instruments	 The RBI's decision to allow sovereign green bonds (SGBs) as Statutory Liquidity Ratio (SLR)³³ eligible instruments enhances their attractiveness to financial institutions, encouraging investments in green infrastructure. It also channels resources into green infrastructure, supporting India's climate goals. It can be improved by: Issuing targeted sovereign green bonds dedicated to financing JT efforts, such as clean energy projects in coal regions and social protection programmes. Developing a robust monitoring framework to ensure green bonds support both environmental sustainability and economic justice.

 ³¹ RBI. <u>Framework for acceptance of Green Deposits</u>, 2023.
 ³² RBI. <u>Priority Sector Lending – Targets and Classification</u>, 2025.
 ³³ PIB. <u>Issuance Calendar for Marketable Sovereign Green Bonds</u>, 2022.

Case Study: Integrating Just Transition into Bank Sustainability Strategies

As India moves towards a low-carbon economy, banks have a key role to play in ensuring the transition is inclusive and equitable. By integrating JT principles into their broader sustainability strategy, banks can help mitigate the social risks of climate action while unlocking new financing opportunities. One way banks can contribute is by financing projects that align with JT goals, while actively engaging with borrowers. Many companies, communities, and individuals vulnerable to the green transition, such as those in coal-dependent regions or informal sectors, remain outside the mainstream financial system. Banks can use their financial inclusion strategies to design tailored products and services for these groups.

For example, autorickshaw drivers who are being pushed to switch to electric vehicles (EVs) often struggle to secure loans from traditional lenders. Banks can step in by offering collateral-free loans, with repayment structures designed around the drivers' cash flow cycles.

This not only supports clean mobility but also protects livelihoods. Banks can also enhance existing financial products to respond better to the needs of borrowers affected by climate policies, considering local contexts and social impacts. Collaborating with other financial institutions and like-minded organisations can strengthen financing ecosystems for JT projects. Such partnerships allow banks to pool resources, share risks, and expand outreach.

Beyond lending, banks can provide advisory services to support the development of JT-aligned projects and offer investment banking solutions to raise capital for such initiatives. Although JT may not currently pose a systemic risk to the banking sector as a whole, it can pose credit risks at the loan or portfolio level—particularly in regions or sectors heavily dependent on fossil fuels. It is, therefore, important for banks to identify these risks and integrate them into their risk management frameworks. By doing so, banks not only future-proof their portfolios but also become catalysts for a fair and inclusive green economy.

Source: Reserve Bank of India, **National Strategy for Financial Inclusion (NSFI): 2019-2024**, 2020. Network for Greening the Financial System, **Guide on climate-related disclosure for central banks**, 2021.

Analysis Matrix

The RBI currently prioritises climate risk within its regulatory framework but has not classified JT as a material financial risk. Without this classification, banks are not mandated to integrate JT principles into their risk management or lending strategies. However, opportunities exist to incorporate JT considerations indirectly, particularly through sustainability-linked loans (SLLs) that align financial incentives with decarbonisation goals. Assessing the financial risks associated with economic shifts,



such as stranded assets and employment disruptions, can help determine whether JT considerations should be integrated into regulatory policies.

Collaboration between financial institutions, corporations, and policymakers can play a crucial role in ensuring a smooth economic transition. Strengthening partnerships between banks and businesses engaged in decarbonisation efforts can facilitate targeted financing that supports both environmental sustainability and social equity. Developing sectoral impact assessments and case studies can provide a data-driven foundation for integrating JT into financial planning and risk management. Additionally, leveraging RBI's existing programmes, such as Priority Sector Lending (PSL) and the Green Deposits Program, can help direct investments towards transition-affected communities and industries. International engagement through platforms like the Network for Greening the Financial System can further enable the adoption of global best practices, helping India align its financial system with broader sustainability and equity objectives.

The following matrix provides an overview of the key positive levers, challenges, recommendations, and potential areas for collaboration that can drive the integration of JT considerations within the RBI's regulatory and financial framework.

Figure 5: Analysis Matrix (RBI)





Ministry of Finance (MoF)

The MoF plays a central role in driving a JT, leveraging its unique position at the nexus of economic, fiscal and financial policymaking. As the primary government body overseeing macro-fiscal policy, taxation, budgeting and debt management, the ministry has unparalleled influence in shaping investment strategies. Integrating JT principles into economic planning can ensure that structural transformations for achieving a net-zero, climate-resilient economy also address socio-economic equity. The ministry's oversight of state-owned enterprises, sovereign wealth funds and development banks provides additional levers to prioritise investments in sectors and regions most affected by the transition, fostering inclusive growth while reducing vulnerabilities.

Collaboration is key to the MoF's success in the JT ecosystem. The ministry can work alongside other departments, such as environment, energy and development, to design and implement comprehensive climate strategies. Through targeted fiscal policies, such as green budgeting and tax incentives, it can accelerate innovation and investment in low-carbon technologies while supporting vulnerable workers and communities. Its leadership at global and regional fora enables it to align national policies with international best practices and mobilise climate finance. Drawing on its ability to address complex economic challenges, the MoF can provide the strategic oversight and resources needed to ensure that the transition to a sustainable economy is not only effective but also equitable and just.

SN	Initiative	Role it can play in JT
1	India's Long- Term Low Carbon Development Strategy (LT- LCDS)	 India's Long-Term Low-Carbon Development Strategy (LT-LCDS), submitted at the 27th Conference of Parties (COP27) in 2022, integrates justice and equity as core principles to ensure a fair transition to a low-carbon economy. The LT-LCDS prioritises decarbonisation through renewable energy expansion to 500 gigawatts (GW) by 2030,³⁴ widespread electrification of transport, and adoption of green hydrogen in industries. It also emphasises safeguarding vulnerable communities, ensuring equitable access to resources, and creating opportunities for inclusive growth. Its role can be improved by: Incorporating explicit funding mechanisms for workforce reskilling in coal-dependent regions. Strengthening state-level action plans to align with LT-LCDS goals for fair regional transitions.

Table 3: Key Initiatives (MoF)

³⁴ United Nations Framework Convention on Climate Change. <u>India's Long term Low-Carbon Development Strategy</u>. 2022.



2	Sovereign Green Bonds (SGB)	 The Framework for SGBs,³⁵ introduced by the Department of Economic Affairs in November 2022, outlines guidelines for raising funds through green bonds to finance sustainable projects. SGBs can mobilise funds for renewable energy, clean transportation, and water management. It also aligns with India's net-zero target by 2070 and international sustainability standards. To include the JT finances in the SGBs, the following measures can be taken: Earmark a portion of SGB proceeds for JT initiatives, such as reskilling and social protection programmes for affected workers. Develop region-specific green bond allocations for coal-reliant states. Introduce impact assessment mechanisms to track JT-related benefits from green bond-funded projects.
3	Budgetary support	 The MoF has made significant strides in integrating climate considerations into the Union Budget.³⁶ Budgetary allocation for new and renewable energy has increased significantly. The increased budgetary allocation presents an opportunity to integrate JT by incorporating the following targeted measures: Introducing specific JT allocations within the Union Budget. Establishing a dedicated JT fund under the MoF. Enhancing financial support for clean energy job creation in former coal-dependent regions.
4	Climate Change Financing Unit	 The Climate Change Financing Unit (CCFU)³⁷ integrates climate finance into national policies and coordinates financial strategies across ministries and stakeholders. It can shape JT policies through the following specific interventions: Expanding CCFU's mandate to include dedicated JT financing strategies. Developing a national framework for transition risk assessment in financial planning. Strengthening financial support for social security measures in transitioning sectors.



³⁵ Department of Economic Affairs, Ministry of Finance. Framework for Sovereign Green Bonds Government of India. November 2022.

 ³⁶ Ministry of Finance. <u>Notes on Demand for Grants, Union Budget 2024-2025</u>. 23 July 2024.
 ³⁷ Ministry of Finance. <u>Climate Change Financing Unit (CCFU)</u>.

 Introducing a climate finance taxonomy³⁸ in the Union Budget 2024-25 is a landmark step in India's journey towards a net-zero and climate-resilient economy. Upcoming Climate Finance Taxonomy Integrate JT principles in taxonomy criteria, ensuring investments address socio-economic climates socio-economic climates address socio-economic climates address socio-economic climates address socio-economic solution in the taxonomy are: Integrate JT principles in taxonomy criteria, ensuring investments address socio-economic climates investments in the economic diversification of coal-dependent regions. Ensure transparency and accountability in financing JT-aligned projects. 	5	Climate Finance	 in India's journey towards a net-zero and climate-resilient economy. By incorporating JT elements, such as socio-economic safeguards and equity-focused criteria, the taxonomy can guide capital flows towards projects that achieve climate objectives while ensuring fairness and inclusivity. Some key suggestions for inclusion in the taxonomy are: Integrate JT principles in taxonomy criteria, ensuring investments address socio-economic challenges. Incentivise investments in the economic diversification of coal-dependent regions.
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EU Just Transition Fund

The EU's Just Transition Fund (JTF) was established as a key financial instrument within the Just Transition Mechanism (JTM), designed to mitigate the socio-economic effects of transitioning to a climate-neutral economy. With a focus on regions heavily reliant on fossil fuels, the JTF plays a crucial role in ensuring a just and equitable transition.

The JTF is primarily financed through the EU budget under the Multiannual Financial Framework (MFF) for 2021-27. Initially allocated €17.5 billion, this amount consists of:

- €7.5 billion from the EU's long-term budget
- €10 billion from the Next Generation EU recovery instrument

These funds are complemented by mandatory national co-financing, requiring member states to provide additional financial resources, which can range from 15% to 50% of the total investment, depending on the region's economic development status. Funding distribution under the JTF is based on Territorial Just Transition Plans (TJTPs), developed by member states and approved by the European Commission. The allocation criteria include:

- Employment dependency on fossil fuel industries
- Carbon intensity of regional economies
- Economic capacity to transition

Once approved, funds are disbursed through grants to support economic diversification, reskilling programmes, investment in clean energy projects, and social infrastructure.

³⁸ PIB. <u>Draft Framework of India's Climate Finance Taxonomy</u>, 2025.

The JTF is the first financial pillar of the JTM. The other two are the Invest EU scheme and the public sector loan facility leveraged by the European Investment Bank (EIB). InvestEU supports a wide range of projects under TJTPs, including energy, transport, gas infrastructure, district heating, decarbonisation, economic diversification, and social infrastructure. The European Commission provides a budgetary guarantee to implementing partners, ensuring direct or indirect financing for project promoters in JT territories with an approved TJTP. Projects outside these areas may also qualify if they contribute to the transition needs outlined in the TJTP.

The InvestEU Advisory Hub serves as a central access point for advisory support under the JTM as well as some funded by the JTF. It offers technical assistance, capacity-building, and guidance throughout project development. The Public Sector Loan Facility, the JTM's third pillar, combines \in 1.3 billion in EU grants with \in 6-8 billion in EIB loans, mobilising \in 13.3- \in 15.3 billion for public investment in the development of JT regions.

The JTF and the associated financing mentioned above are key parts of the EU's strategy to provide JT financing for the regions and communities left behind in the transition.

Sources: European Environment Bureau, Keeping the promise: Why the Just Transition Fund must be maintained in the next EU budget, 2024. European Commission, Just Transition funding sources. Karen Moesker and Udo Pesch, The just transition fund – Did the European Union learn from Europe's past transition experiences?, Energy Research & Social Science, 2002.

Analysis Matrix

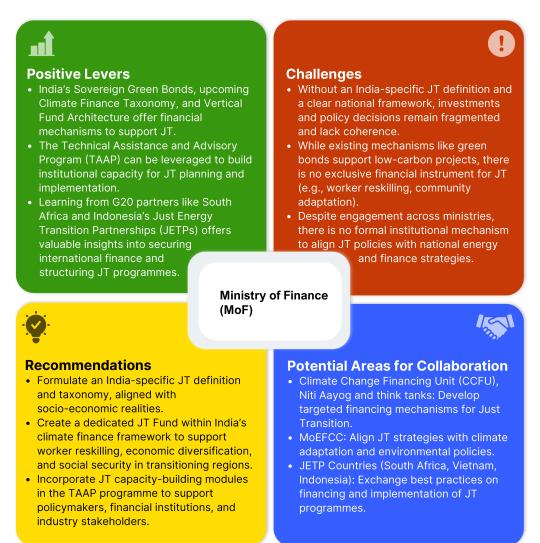
The MoF can leverage existing climate finance mechanisms such as Sovereign Green Bonds and the upcoming Climate Finance Taxonomy to support JT efforts. The Technical Assistance and Advisory Program (TAAP) presents an opportunity to build institutional capacity for JT planning. Additionally, learning from G20 partners like South Africa and Indonesia through their Just Energy Transition Partnerships (JETPs) can provide valuable insights into structuring financial mechanisms and securing international funding for JT programmes. However, a major challenge is the absence of an India-specific JT definition and framework, which results in fragmented investments and policy decisions. While instruments like green bonds support low-carbon projects, there is no dedicated financial mechanism focused on worker reskilling, economic diversification, and social security, making institutional alignment difficult.

To address these gaps, India should establish a JT definition and taxonomy that align with the country's socio-economic realities. A dedicated JT fund within India's climate finance framework would help in financing worker reskilling and economic diversification in transitioning regions. Incorporating JT-focused capacity-building modules within TAAP can also aid in strengthening policymaker and financial institution engagement. Collaborative efforts with institutions like the Climate Change Financing Unit (CCFU), NITI Aayog, and relevant think tanks can help in designing targeted financing mechanisms, while coordination between MoF and MoEFCC would ensure alignment with climate adaptation and environmental policies. Engaging with JETP countries such as



South Africa, Vietnam, and Indonesia can further enhance knowledge-sharing and best practices in JT financing and implementation.

Figure 6: Analysis Matrix (MoF)



Ministry of Environment, Forest and Climate Change (MoEFCC)

The MoEFCC plays a crucial role in ensuring that India's climate goals are pursued in alignment with broader environmental priorities, such as ecosystem restoration, biodiversity conservation, and sustainable land use. By embedding JT principles into national and state-level climate and environmental policies, the ministry can help safeguard the livelihoods of communities dependent on natural resources. Its efforts to integrate climate mitigation and adaptation with ecological sustainability can drive nature-based solutions, promote green jobs, and ensure that vulnerable populations are not left behind in the low-carbon transition.



Table 4: Key Initiatives (MoEFCC)

SN	Initiative	Role it can play in JT
1	National Adaptation Fund for Climate Change (NAFCC)	 Established to support climate adaptation projects, the NAFCC has implemented 30 initiatives across India, with a cumulative investment of around US\$100 million.³⁹ The NAFCC supports adaptation projects that enhance resilience in climate-vulnerable regions. It focuses on key areas, such as water management, agricultural resilience, and livelihood diversification. Additionally, it ensures that marginalised communities receive financial support to strengthen their capacity for climate adaptation. Its role can be improved by: Expanding project scope to include coal-dependent communities facing economic shifts. Introducing dedicated funding for skill-building in renewable energy and sustainable industries. Strengthening public-private partnerships for financing adaptation in coal regions.
2	Global Environmental Facility (GEF)	 The GEF plays a crucial role in addressing global environmental challenges, with India actively participating as both a donor and recipient of grants. Since its inception in 1991, India has accessed approximately US\$327 million in GEF grants.⁴⁰ The GEF provides significant funding for climate mitigation and biodiversity conservation. It supports projects focused on land restoration, emissions reduction, and sustainable energy transition, contributing to global environmental sustainability. GEF can be utilised in financing JT by: Prioritising funding for coal region restoration and alternative livelihood programmes. Establishing dedicated GEF-backed financing mechanisms for transition-affected communities. Aligning GEF projects with JT priorities under India's energy policies.
3	Green Credit Programme (GCP)	 The GCP was introduced at COP28⁴¹ in December 2023 to incentivise voluntary pro- environmental actions across India. The GCP incentivises voluntary environmental action such as afforestation and conservation. It actively engages communities in sustainability initiatives at the grassroots level, promoting environmental stewardship and long-term ecological benefits. GCP can be utilised in financing JT by: Expanding credit categories to include rehabilitation of coal mine-affected areas. Developing financial incentives for businesses investing in transition-linked environmental restoration. Creating linkages between Green Credits and JT financing mechanisms.

³⁹ NABARD

⁴⁰ United Nations Framework Convention on Climate Change. India: First Biennial Update Report to the United Nations Framework Convention on Climate Change. 2015. ⁴¹ Ministry of Environment, Forest and Climate Change. <u>Year end Review- Ministry of Environment, Forest and Climate Change</u>. 22

December 2023.

4	Green Skills Development Programme (GSDP)	 The GSDP,⁴² launched by the MoEFCC in 2017, aims to build a green workforce to support India's growing environmental sector. It builds workforce capacity in pollution monitoring, STP/ETP operations, and green sector jobs while offering technical training through specialised courses to enhance skills and expertise in environmental management. It can further influence skilling initiatives in JT by: Introducing JT-focused training for ex-coal sector workers. Expanding green skill development to include solar, wind, and clean energy infrastructure jobs. Integrating GSDP with industry-driven employment programmes in renewable energy hubs.
5	National Reducing Emissions from Deforestation and Forest Degradation (REDD)+ Strategy	 The REDD+ strategy⁴³ focuses on enhancing forest and tree cover while promoting sustainable management of forests to mitigate climate change impacts. It actively involves local communities in benefit-sharing and carbon sequestration projects, promoting both environmental sustainability and socio-economic development. Some suggestions to be included in REDD+ strategy are: Leverage REDD+ for afforestation and ecosystem restoration in coal mine closure areas. Expand community-based forestry programmes in coal-transitioning regions to provide alternative employment. Develop a carbon credit mechanism where coal-dependent communities benefit from REDD+ initiatives. Strengthen financial support for forest-based livelihoods, ensuring sustainable economic development in post-coal regions.
6	Compensatory Afforestation Fund Management and Planning Authority (CAMPA)	 CAMPA⁴⁴ oversees compensatory afforestation to offset forest land loss due to nonforestry activities. It funds forest regeneration, silvicultural operations, and biodiversity conservation projects while implementing eco-sensitive development strategies to maintain ecological balance. CAMPA funds can be utilised for financing community initiatives by: Using them for ecological restoration of abandoned coal mines and degraded landscapes. Integrating compensatory afforestation with JT workforce programmes, providing employment opportunities in forestry and land restoration. Developing financial incentives for states adopting sustainable land-use planning in coal-transitioning regions.

Analysis Matrix

The MoEFCC has opportunities to integrate JT elements into national climate strategies, leveraging financial mechanisms like the GCF, CAMPA, and the GCP to support activities in coal-dependent regions. Additionally, the GSDP can play a crucial role in enabling workforce transitions to green jobs. However, challenges persist, including the lack of technical knowledge among states to access

⁴⁴ Ministry of Environment, Forests and Climate Change. <u>Annual Report 2023-24</u>. 2024.



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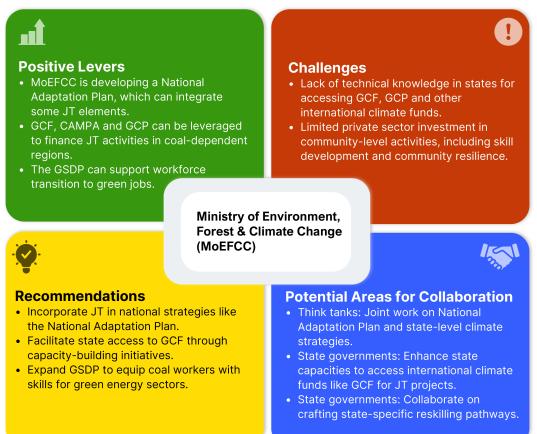
⁴² Ministry of Environment, Forest and Climate Change, <u>Green Skill Development Program</u>.

⁴³ Ministry of Environment, Forest and Climate Change. <u>National REDD+ Strategy INDIA</u>, 2018.

international climate funds, limited private sector investment in community-level resilience efforts, and large-scale workforce displacement from coal and other sectors requiring significant reskilling initiatives.

To address these challenges, MoEFCC should incorporate JT into national strategies, facilitate state access to climate finance through capacity-building programmes, and expand GSDP to equip coal workers with skills for green energy sectors. Collaboration between MoEFCC, think tanks, international institutions and state governments can enhance state capacities to access international funds like GCF and craft targeted reskilling pathways. These efforts can ensure a structured transition for workers and communities affected by climate policies while strengthening climate resilience at the state level.

Figure 7: Analysis Matrix (MoEFCC)



NITI Aayog

As India's apex policy think tank, NITI Aayog develops comprehensive energy transition roadmaps incorporating socio-economic considerations. It serves as a bridge between government bodies and the private sector, ensuring alignment between national priorities and diverse stakeholder perspectives. NITI Aayog's work facilitates a cohesive approach to JT planning and execution.



Table 5: Key Initiatives (NITI Aayog)

SN	Initiative	Role it can play in JT		
1	Just Transition Report	 NITI Aayog has developed a report on JT⁴⁵ while forming a committee to focus on the coal sector. The report contributes to JT by establishing a committee focused on the coal sector and formulating policy briefs on clean energy-based economic opportunities for affected communities. It also addresses key issues, such as stranded coal assets, health impacts, coal's role in decarbonisation, and regional collaborations with US states to share best practices. Further studies can: Expand the scope beyond coal to include fossil fuel-dependent sectors such as transport, thermal power and heavy industries. Develop a national-level JT roadmap with time-bound objectives and clear implementation strategies. Strengthen stakeholder engagement with coal workers, local communities, and state governments for inclusive decision-making. 		
2	Accelerating Sustainable Solutions for Energy Transition (ASSET)	 NITI Aayog's ASSET Platform⁴⁶ contributes by assisting states in developing energy transition blueprints. It also plays a crucial role in identifying bankable projects and fostering innovation in battery storage, green hydrogen, energy efficiency, and offshore wind. The platform can be further improved by: Prioritising the inclusion of JT principles in energy transition blueprints to ensure social equity and economic resilience. Enhancing support for local capacity building and workforce transition programmes. 		
3	Collaboration with the Global Energy Alliance for People and Planet (GEAPP)	 The collaboration with GEAPP⁴⁷ supports transition efforts across 10 states, aiming for 100GW of renewable energy within three years. It provides technical assistance, develops project pipelines, and advances sustainable policies. Key initiatives include solarising expressways, empowering women, and digitalising utilities to drive a more inclusive and sustainable energy transition. This collaboration can also include JT components by: Ensuring that renewable energy investments create local employment opportunities to compensate for coal-related job losses. 		

⁴⁵ NITI Aayog. Report of the Inter-ministerial Committee on Just Transition from Coal. November 2022.

⁴⁶ NITI Aayog. ASSET (Accelerating Sustainable Solutions for Energy Transition) Platform, 2024.

⁴⁷ GEAPP. Global Energy Alliance for People and Planet (GEAPP) and NITI Aayog forge strategic partnership to advance sustainable development. 16 October 2024.

•	Strengthening mechanisms to assess the socio-economic impact of energy transition projects on vulnerable communities. Collaborating with international agencies for knowledge exchange and capacity building.
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Several NITI Aayog verticals actively address climate issues, energy transition and green livelihood generation, some of which are crucial for fostering a JT ecosystem. We provide a summary of their key interventions below:

SN	Initiative	Role it can play in JT		
1	Energy Vertical	The energy vertical ⁴⁸ promotes clean energy investments while reducing energy import dependency. It assesses project proposals linked to multilateral loans for energy transition initiatives and supports schemes, such as the Production Linked Incentive (PLI), for high-efficiency solar PV modules and specialty steel, driving sustainable industrial growth.		
		This vertical can further enhance JT activities by:		
		 Integrating JT components into clean energy projects to provide employment alternatives for displaced workers. Enhancing funding for pilot projects demonstrating successful economic diversification in coal-dependent regions. Promoting skill development programmes to bridge the gap between fossil fuel-based and renewable energy jobs. 		
2	Natural Resources and Environment (NRE) Vertical	The NRE ⁴⁹ vertical supports research on the socio-economic impacts of coal mining and develops policies to mitigate adverse effects. It also explores sustainable financing mechanisms such as green bonds, carbon pricing, and carbon markets to drive environmentally responsible economic transitions.		
		 This vertical can further enhance JT activities by: Developing a comprehensive framework for green jobs and sustainable livelihoods in coal-transitioning regions. Strengthening financial mechanisms, including transition funds, to support affected communities and businesses. Scaling up ecological restoration efforts with a focus on reforestation and land reclamation in former mining areas. 		
3	Industry & Foreign	The industry and foreign investment verticals ⁵⁰ support industrial growth by optimising mineral resources and fostering MSME integration. They also drive sustainable		

Table 6: Key Interventions of NITI Aayog Verticals

⁴⁸ Niti Aayog. Energy Vertical.

⁴⁹ Niti Aayog. <u>Natural Resources and Environment</u>.

⁵⁰ Niti Aayog. Industry-I and Industry & Foreign Investment Verticals.

	Investment Verticals	 initiatives through collaborations under the Blue Economy framework, promoting responsible resource utilisation and economic resilience. This vertical can further enhance JT activities by: Fostering regional economic diversification by promoting industries aligned with clean energy transitions. Supporting MSMEs in coal-dependent regions with financial incentives and capacity-building programmes. Encouraging foreign investments in sustainable industries to create alternative employment opportunities.
4	Public-Private Partnership (PPP) Vertical	 The PPP vertical⁵¹ facilitates private investments in energy transition projects while promoting zero-emission public transport through model concession agreements for e-buses. It also implements the National Monetisation Pipeline to integrate state-level energy transition efforts, ensuring sustainable infrastructure development. This vertical can further enhance JT activities by: Expanding PPP models to include social infrastructure projects focused on education, healthcare, and skill development in affected regions. Providing incentives for private sector investments in green job creation. Developing risk-sharing mechanisms to attract investments in JT-focused projects.

Analysis Matrix

NITI Aayog has played a pivotal role in supporting states by building state-specific roadmaps for long-term transition strategies. However, key challenges include limited expertise at the state level for project development and finance mobilisation, difficulties in accessing and structuring climate finance for state-led projects, and delays in translating policy recommendations into tangible on-ground impacts.

To address these challenges, we recommend that NITI Aayog deepen state engagement, particularly in coal-dependent regions, by developing transition models and contributing case studies, such as a "cost of transition" model for inclusion in its reports. Supporting the creation of state-specific vision documents with scenario modelling, stakeholder consultation, and policy design would further strengthen JT efforts. Potential collaboration areas include partnerships with research institutions for scenario modelling and socio-economic impact analysis, cooperation with state governments to facilitate climate finance access, and training programmes on JT, finance, and policy implementation.



⁵¹ Niti Aayog. Public-Private Partnership (PPP) Vertical.

Figure 8: Analysis Matrix (NITI Aayog)



- Support development of state-specific vision document, including scenario modeling, stakeholder consultation, and policy design.
- NITI Aayog and training institutes: Joint training sessions on just transition, finance, and policy implementation.

Corporates

The active participation of corporates in the JT financing ecosystem is essential. They follow sustainability initiatives mandated by SEBI, the Ministry of Corporate Affairs and other regulators, and sometimes they take up sustainability measures voluntarily. Beyond their direct operations, corporates can significantly influence MSMEs by integrating them into sustainable supply chains, promoting capacity building, and encouraging green innovation among smaller enterprises.

As major investors in clean energy projects, corporates catalyse the transition to renewable energy while fostering economic diversification in fossil fuel-dependent states. Moreover, corporates play a transformative role in the communities they operate in by investing in local development, supporting reskilling programmes, and driving inclusive growth, thereby ensuring shared benefits of JT across stakeholders.



Their involvement is pivotal to the transition to low-carbon pathways, clean technologies, and creating employment opportunities in alternative sectors. Additionally, corporates operating in highemission industries, such as steel, cement and chemicals, are critical to successful hard-to-abate sector transitions. Furthermore, companies in sectors like automotive manufacturing, e-mobility, and recycling are expected to drive diversification and circular economy initiatives that will help reduce fossil fuel dependency.

As part of our scoping exercise, we initiated the mapping of the top 1,000 publicly listed companies in India, considering their roles, exposure and potential impact on the JT. We followed this by categorising and shortlisting relevant companies based on their sectoral alignment, ESG performance and geographical presence in regions requiring JT interventions.

After the scoping exercise, we conducted stakeholder consultations with five targeted companies to understand their perspectives on JT and how they are integrating it into their corporate strategies. The key insights from these consultations are outlined below:

Financial Considerations

Corporates recognise that transitioning to low-carbon industries involves high capital investments, particularly in sectors like renewable energy and green hydrogen. These investments, while financially demanding, offer long-term benefits such as job creation and alignment with India's climate targets. The shift also brings business model challenges, especially for traditional sectors adapting to new technologies. MSMEs, in particular, face significant barriers in accessing finance for sustainability transitions. This has prompted calls for government-supported credit mechanisms to ease the financial burden and facilitate broader participation in the transition.

Supply Chain Adaptation

Supply chain adaptation remains a key concern in the low-carbon transition. While early-stage ESG assessments are being undertaken by many corporates, their effectiveness is often hindered by financial and technical limitations. These challenges are particularly acute for smaller firms and suppliers, who lack the resources and expertise needed to align with emerging sustainability standards across the value chain.

International Influences

International trends are increasingly shaping corporate strategies around JT. Investors are placing greater emphasis on sustainability and are seeking alignment with JT principles in corporate plans. At the same time, companies are benchmarking their efforts against global best practices and exploring opportunities to partner with multilateral institutions for climate-aligned financing and technical support.



Policy Gaps and the Need for Regulatory Strengthening

Stakeholders are calling for stronger policy frameworks to integrate JT into corporate strategy and national development agendas. Suggestions include enhancing the BRSR framework to incorporate JT leadership indicators and developing a taxonomy to classify related investments. There is also a growing demand for the Ministry of MSMEs to support smaller enterprises with financial incentives and training programmes. Strengthening ESG alignment and embedding JT considerations into broader policy and labour reforms are seen as necessary to scale corporate efforts and unlock financing opportunities. Formalising investor-corporate dialogues on transition financing mechanisms is also critical for mainstreaming these objectives.

Social Inclusion and Strategic Recommendations

Corporates are increasingly integrating community and social considerations into their JT planning. Empowering women through targeted skilling in green sectors, supporting local employment through recycling and circular economy initiatives, and embedding workforce transition into CSR activities are key priorities. To advance these efforts, strategic recommendations include bolstering MSME financial and capacity support, mapping sector-specific job displacement risks, enhancing government-industry collaboration, and establishing structured investor engagement mechanisms. Multi-stakeholder partnerships and data-driven approaches are essential for building a sustainable, inclusive, and economically beneficial transition that aligns with India's broader development goals.

Scottish and Southern Energy (SSE): A Corporate Just Transition Case

The case of UK-based energy company SSE integrating a JT strategy into its net-zero pathway, supported by significant financial commitments and investor engagement, provides insights for corporate JTs at large.

SSE was the first energy utility to launch a dedicated JT strategy in 2020, in collaboration with Royal London Asset Management and the Friends Provident Foundation. This strategy comprises 20 principles grouped under five themes, which include good green jobs, community support, and consumer fairness. It aims to ensure that the transition away from high-carbon activities maximises social equity, especially for workers, consumers, and local communities.

SSE has incorporated shared ownership models and community investment funds into renewable projects, enhancing local benefits and easing planning processes. It also introduced enhanced supply chain worker protection and retraining programmes to attract staff from declining fossil sectors. These actions have helped mitigate political and regulatory risk, build brand value, and secure a smoother transition path.



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The strategy has influenced other utilities such as EON SE (formerly Energieversorgung Oberhausen AG), Centrica plc, and Électricité de France (EDF) to include JT in their climate plans. SSE has produced progress reports, but much of the disclosure remains qualitative, with efforts on to develop more robust quantitative Key Performance Indicators (KPIs).

This case shows that corporates can play a role by embedding JT principles in strategy, aligning capital allocation with social outcomes, and catalysing systemic change through leadership and transparency.

Source: Just Transition Finance Lab, Case study SSE - working with investors to chart a just transition, 2024.

Spain's Just Transition Energy Tenders

Spain's Just Transition Institute (ITJ) has created an innovative mechanism that links grid access for renewable energy to local economic and social investment, offering valuable lessons for corporate-led just transitions globally.

In 2022, ITJ awarded a tender for grid capacity in Andorra, Aragón to Endesa, a Spanish utility company, through its subsidiary Enel Green Power España. Endesa committed over €1.5 billion to renewable energy and energy storage projects, plus €60 million for a wide-ranging socioeconomic plan. The bid includes 14 renewable plants, green hydrogen, battery storage, and direct and indirect job creation—6,374 jobs in total, including 10% allocated to former coal workers and 25% to women.

Endesa's plan goes beyond energy infrastructure. It features investments in local manufacturing, sustainable agriculture, rural tourism, and social services, all co-designed with over 30 local stakeholders. This approach reflects the company's "Creating Shared Value" model, which prioritises community involvement and long-term local benefits.

To ensure delivery, Endesa posted a €220 million performance guarantee, making this not just a corporate social responsibility initiative but a financially accountable JT model. The project has earned political support and community trust, helping to revitalise a previously coal-dependent region.

The case study shows the role corporates can play when coordinated by public and civil society organisations to bring out JT characteristics in the energy transition. This case is particularly interesting because it cost no public money as it was fundamentally a tender for grid access. It demonstrates innovative ways to incorporate JT in other policy arenas.

Source: Just Transition Finance Lab, Case study Spain's just transition energy tenders, 2024.



Pathway to improve the Just Transition financing ecosystem in India

Integrating "Just Transition" in a financial system and making it instrumental for a smooth green economic transformation warrants varied and serious measures by various enablers in the system. An integrated approach is needed to embed JT in financing, which can bring policymakers and regulators together and encourage collaboration between public and private financers and corporate actors. A pathway can outline a comprehensive strategy for financing JT that would act as a blueprint for all the key enablers in the system to follow. Below are the short-term, medium-term, and long-term action plans for JT in India, a strategic pathway towards a just green economic transformation.

Key Enablers	Short-Term (2025-30)	Medium-Term (2031-35)	Long-Term (2035 and beyond)
Financial Regulators (RBI, SEBI)	SEBI - Integrate JT indicators into BRSR disclosures. - Include JT as a non-binding principle in sustainable finance products (e.g., social bonds, ESG funds, sustainability-linked bonds). RBI - Make JT finance eligible under PSL. - Support development of SLL frameworks incorporating JT indicators.	RBI - Require banks/NBFCs to disclose JT aspects as part of transition risk planning and climate disclosures.	RBI - Develop and promote dedicated JT financing windows targeting affected sectors and regions.
Financial Institutions (FIs), MDBs, and Investors	Commercial Banks, NBFCs, and Institutional Investors - Factor JT as a material risk and opportunity in lending and investment decisions. - Encourage corporates to embed JT in strategic planning. MDBs & Impact Investors - Offer concessional finance and technical assistance for JT-linked initiatives.	Banks and FIs - Integrate JT criteria in Ioan assessments. - Mainstream JT-aligned financial products.	Banks and FIs - Create financing platforms for MSMEs and local businesses navigating the energy transition.

Table 7: Roadmap for Improving the Just Transition Financing Ecosystem



Government Ministries & Policy Institutions (MoF, MoEFCC, MoP, NITI Aayog)	MoF - Define JT as per local context and align green taxonomy with JT principals. - Introduce fiscal incentives and budgetary provisions for JT projects. MOEFCC - Integrate JT in India's climate policies (e.g., national adaptation plan, LT- LEDS). NITI Aayog - Provide strategic direction and policy coherence on inclusive transition pathways.	MoF - Establish a national JT fund/facility. MoEFCC - Enable state access to climate finance through capacity-building.	MoP - Support coal phase-out with plans for repurposing assets and reskilling workers. - Design frameworks to support communities and workers dependent on fossil sectors.
State Governments	 Conduct state-specific socio-economic impact assessments in collaboration with CSOs/research institutions. Allocate state budgets for pilot JT projects. Begin drafting sector- specific economic diversification roadmaps. 	 Operationalise JT funds at the state level. Develop local-level skill development and employment programmes in emerging green sectors. Institutionalise JT planning in state development policies. 	- Use the proceeds of taxes from green sectors to support affected communities and regions.
Corporations (Public & Private)	 Map workforce displacement risks across sectors and align training programmes. Extend favourable terms to MSMEs and suppliers integrating JT. Incorporate JT metrics and targets in climate transition plans. Initiate dialogue with investors on transition finance expectations. 	 Launch industry-wide reskilling and capacity-building programmes for supply chains. Partner with government to co-develop JT-aligned labour and industrial policies. 	 Advocate and co-fund public-private JT initiatives in high-risk sectors. Champion data-sharing and knowledge platforms on workforce transition best practices.



Civil Society Organisations (CSOs) & Research Institutions	 Support national stakeholders in defining JT and assessing material risks. Lead research on transition impacts and fiscal needs. Strengthen evidence base for policy design and community engagement. 	 Support skill development and upskilling programmes in transitioning sectors. Develop localised tools/models for fiscal planning and social protection. 	- Lead community-led resilience building programmes and monitor long-term transition outcomes.	
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Short-Term Initiatives (2025-30)

Short-term actions are to be prioritised within the next two to five years as these activities are mostly preparatory, which enables the state to be ready when the transition accelerates. In the short term, SEBI can make it mandatory to include JT disclosures in the BRSR framework if deemed a material risk. Additionally, it can integrate JT as a non-binding principle in sustainable finance products like social bonds and ESG funds. The RBI can also add JT projects eligible for PSL and integrate JT as one of the principles of green loans. MDBs like the World Bank and ADB can provide technical assistance. NITI Aayog can offer strategic direction to ensure an inclusive framework.

Medium-Term Initiatives (2031-35)

The medium-term actions highlight areas to target within the next 5-10 years to help India prepare for a smooth economic transition without leaving anyone behind. RBI and SEBI can establish JT financing windows to direct credit to vulnerable regions and mandate transition planning disclosures for banks and NBFCs. Ministries like the MoEFCC can enhance state access to climate finance through capacity-building. In contrast, state governments should allocate budgetary resources for JT and collaborate with local institutions to train workers for green jobs. Corporations can support MSMEs by extending credit periods and offering capacity-building programmes for supply chain partners in the MSME segment.

Long-Term Initiatives (2035 and beyond)

A JT requires a long-term commitment from government institutions, state authorities, and corporations. The Ministry of Power (MoP) facilitates the shift from coal-based to renewable energy generation. State governments can support this process by allocating tax revenues from green sectors to fund JT initiatives. Public and private business enterprises must actively participate in this transition by fostering multi-stakeholder collaboration. Academic institutions and think tanks can create evidence-based strategies for a smooth, green economic transition.



A well-planned JT will support green energy adoption while promoting economic resilience for communities vulnerable to rapid green economic transition.

Way Forward

India stands at a pivotal juncture in its journey toward a low-carbon economy. As the country accelerates its climate commitments, it must ensure that the transition to a green economy is just, inclusive, and equitable for all stakeholders, particularly those whose livelihoods depend on fossil fuel-based sectors. A sector-specific approach is essential to making the JT actionable. Tailored strategies for coal, transport, and heavy industry will enable more targeted financing, policy support, and reskilling efforts.

Based on stakeholder discussions, this report outlines a phased approach to achieving a JT, beginning with short-term preparatory actions such as integrating JT principles into regulatory frameworks like SEBI's BRSR, RBI's green lending guidelines, and sustainable finance instruments. These foundational steps will enable a smoother and more coordinated rollout of long-term structural changes. Multilateral institutions, central regulators, and policy think tanks must come together to provide technical support, strategic guidance, and policy alignment during this critical early phase.

In the medium and long term, a JT will require deeper institutional engagement, targeted financial support, and inclusive development strategies. Key actions include creating financing windows for vulnerable regions, mandating disclosure of transition plans, supporting MSMEs, and allocating budgetary resources for worker training. As India gradually shifts from coal to renewables, it will be essential for ministries, state governments, corporates, and academic institutions to collaborate closely. This roadmap envisions a future where the transition not only mitigates climate risk but also builds resilient communities and sustainable livelihoods. The success of India's green transition hinges on our collective ability to embed justice at its core.



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