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Seven lessons for India's climate finance taxonomy

Response to the Department of Economics Affairs' Public Consultation on the Draft Framework for India's Climate Finance Taxonomy

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Introduction and context

In May 2025, the Department of Economic Affairs (DEA) within India's Ministry of Finance released a first draft framework of India's Climate Finance Taxonomy for public consultation. The taxonomy aims to facilitate around US$250 billion per year (Ministry of Finance, 2025) of finance towards climate-friendly technologies and activities and thereby enable India to achieve its interim 2030 and long-term 2070 net zero targets.

The draft framework already integrates many positive and encouraging priorities that will ensure that the development of the Climate Finance Taxonomy follows international best practice:

- First, the draft taxonomy embraces **science-based metrics** and **internationally-benchmarked technical screening criteria (TSCs)**. By ensuring credibility, the taxonomy is interoperable with international frameworks such as the EU taxonomy and the EU-China Common Ground Taxonomy (CGT), thereby facilitating the flow of cross-border capital towards climate change mitigation and adaptation investments in India.

- Second, it acknowledges that the taxonomy will be designed as a **living document**, ensuring that it is continuously and regularly updated to reflect technological progress, market developments, and evolving climate science. The tiered structure allows flexibility around the decarbonisation challenges of hard-to-abate sectors (so-called 'transition finance').

- Third, the draft framework pledges to adopt **evidence-based threshold setting**, which is crucial for ensuring that the taxonomy contributes towards the 1.5°C target. India will thereby join the likes of Chile, Brazil and Australia in setting TSCs based on scientific evidence or quantitative criteria based on Nationally Determined Contributions (NDCs) or the scenarios of the Intergovernmental Panel on Climate Change (IPCC) (Climate Bonds Initiative, 2021; Secretaria de Política Econômica, 2023).

- Fourth, where quantitative criteria are unavailable or where decarbonisation technologies in hard-to-abate sectors are still nascent, it is encouraging that the Ministry of Finance has followed the path set by ASEAN or Brazil's taxonomies and **proposed the integration of qualitative benchmarks** such as process-based steps and other hybrid approaches (ASEAN Taxonomy Board, 2024). Best-in-class performance can also underpin the TSCs, for instance by setting emission thresholds in relative terms.

- Fifth, as described above, the Draft Framework embeds the **Do No Significant Harm (DNSH) principle**, which explicitly includes social considerations as part of the minimum safeguards that ensure that people are not left behind in the net zero transition. Like other taxonomies, such as the ASEAN taxonomy's Social Aspects (SAs), these safeguards can be aligned with international labour and human rights frameworks such as the Core Conventions of the International Labour Organization (ILO) or the United Nations' Guiding Principles on Business and Human Rights (UNGPs) to ensure that climate-friendly investments do not come at the cost of workers' rights, indigenous communities or other social considerations.

Building on this positive momentum, this report aims to inform and guide the DEA's further development of the Climate Finance Taxonomy by highlighting international best practice. (A version of the report was submitted to the DEA's Public Consultation on the Draft Framework for India's Climate Finance Taxonomy in July 2025.) Taking these lessons into consideration can help India to avoid common mistakes, support the DEA in deciding what to include and exclude in the taxonomy, and ultimately smooth the transition towards a low-carbon and climate-resilient economy and financial system. The inclusion of real-world examples strengthens the lessons, helps make them more practical, and facilitates peer-learning.

Overall, we identify seven common areas of lessons and challenges across those countries that have already implemented similar taxonomies (see Figure 1.1):

- **Lesson 1: Making adaptation and resilience a central objective** of the taxonomy by refining the classification of eligible activities, integrating Nature-based Solutions (NbS) and introducing simplified Technical Screening Criteria (TSC). This lesson draws on experience from the treatment of adaptation and resilience under the taxonomies of Mexico, Indonesia, Australia and the European Union (EU).

- **Lesson 2: Including the domestic mining and refining of critical minerals** in the taxonomy to support India's own low-carbon economic and industrial ambitions and reduce its exposure to global price spikes and supply bottlenecks. The DEA can draw on the experience of Brazil, Chile and Australia to integrate extractive industries into the taxonomy while ensuring high-environmental standards.

- **Lesson 3: Ensuring credibility and interoperability** of India's climate finance taxonomy by aligning it with global standards through clearer classification of activities, internationally-benchmarked screening criteria and compatibility with the Multi-Jurisdiction Common Ground Taxonomy (M-CGT) between China, the EU and Singapore.

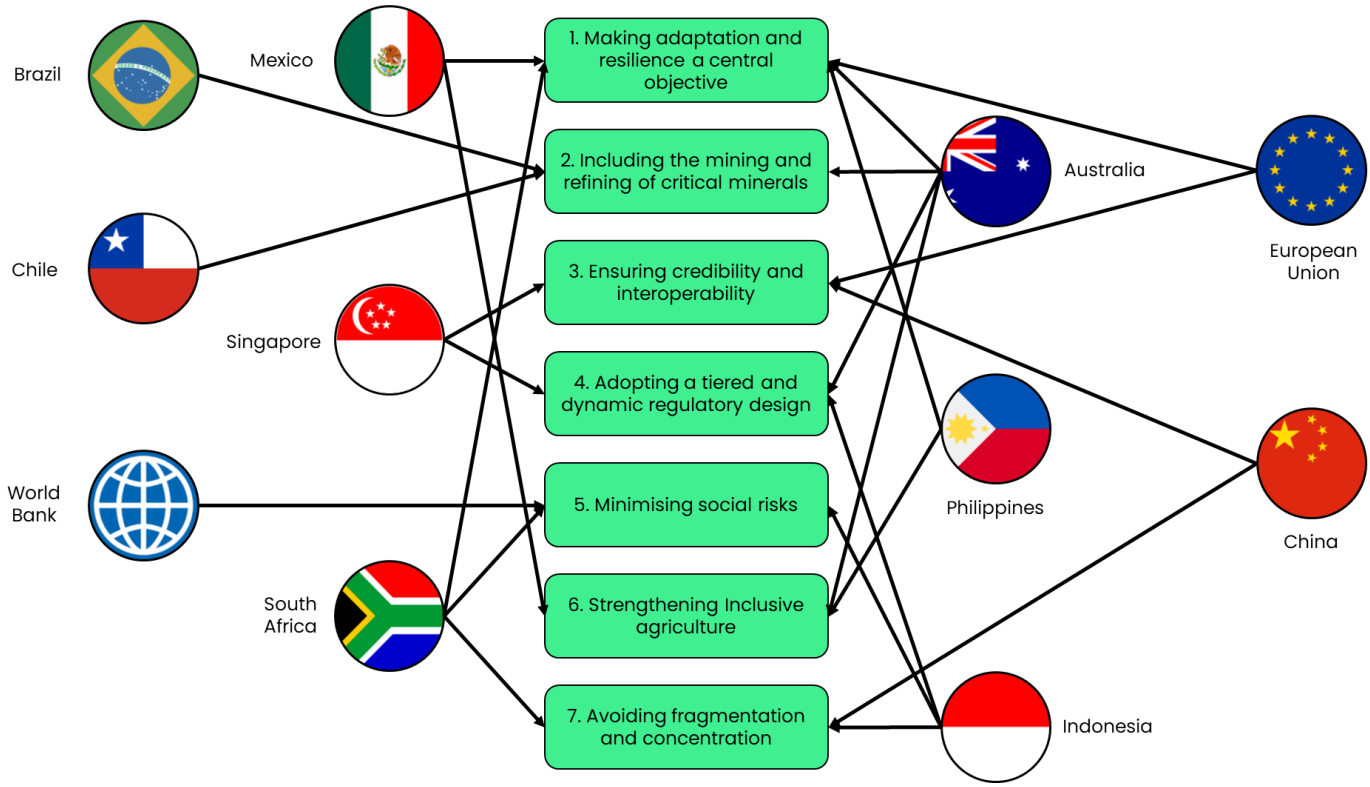
- **Lesson 4: Adopting a tiered and dynamic regulatory design** by streamlining and clarifying the distinction between the green and transitional tiers of the taxonomy, setting evidence-based thresholds for emissions and adaptation, and ensuring that these thresholds are regularly updated to accommodate technological progress in low-carbon solutions. Singapore, Indonesia and Australia offer important lessons on how to structure tiered and dynamic taxonomies.

- **Lesson 5: Minimising social risks** by embedding the World Bank's just transition principles to align India's net zero goals with the realities of coal dependence. Drawing on Indonesia and South Africa's experience, the taxonomy should recognise investments in reskilling, land repurposing and rehabilitation as eligible activities.

- **Lesson 6: Strengthening inclusive agriculture** by adopting a phased, principles-based approach for classifying eligible activities that cater to the needs and circumstances of smallholder farmers. Drawing on practices in Mexico, the Philippines and Australia to strengthen farmer engagement, improve data systems and invest in their capacity.

- **Lesson 7: Avoiding fragmentation and concentration** by aligning the taxonomy with the RBI and SEBI's existing regulatory frameworks for sustainable finance and ensuring that it can be applied to a diverse range of financial instruments other than loans.

Figure 1.1. Seven lessons for India's Climate Finance Taxonomy and their origins



1. Making adaptation and resilience a central objective

With India being one of the world's most climate-exposed countries, adaptation and resilience is rightly considered central to the draft taxonomy. However, the taxonomy's definition of climate adaptation and resilience could be refined by offering a clearer classification and strong monitoring. Furthermore, international best-practices suggest there are opportunities to prioritise nature-based solutions (NbS) for building adaptation and resilience, integrate simplified technical screening criteria (TSCs) for priority activities, and mandate the use of forward-looking climate scenarios for project evaluations.

Summary of recommendations

- **Integrate monitoring and evaluation into the definition of climate adaptation and resilience.** While the taxonomy takes a positive step by including both adaptive and adaptation-enabling activities, it can go further by providing guidance covering impact assessment to help prevent maladaptation.
- **Prioritise nature-based and blue-green solutions as preferred adaptation strategies.** Define eligible activities such as mangrove restoration, watershed protection and agroforestry to align with India's biodiversity strategy and global frameworks including the Kunming-Montreal Agreement.
- **Prioritise technical screening criteria (TSCs) for larger-scale infrastructure adaptation projects.** Use simplified qualitative or principles-based criteria similar to Indonesia's or the Philippines' approach for smaller or context-specific projects such as nature-based solutions to encourage adaptation, provided they are well-evidenced.
- **Mandate scenario-based climate risk assessments while building capacity.** Australia and Mexico's taxonomies offer examples using credible future pathways, including one exceeding 2.5°C by 2050. Implementation should go hand-in-hand with institutional training and the provision of analytical tools.

Discussion of context and evidence

As one of the world's most disaster-prone countries, India faces extreme exposure to the physical risks from climate change. As pointed out by the National Disaster Management Authority, 27 of India's 32 states are thought to be vulnerable to natural disasters. The EM-DAT database shows that in 2006-2010, 110 natural disasters affected 75.6 million people and led to around US$14 billion in damages (Tamuly and Mukhopadhyay, 2022). It is important to build resilience against natural disasters not only to protect people's livelihoods but also to secure the supply chains that will underpin 'Viksit Bharat@2047' – India's goal of attaining developed country status by 2047. An estimated US$648.5 billion (at 2023-24 prices) will be required cumulatively to finance adaptation until 2030 in a business-as-usual scenario (MoEFCC, 2023). Recognising this, **India has made climate adaptation and resilience a central objective of its draft taxonomy**, encompassing the power, mobility, buildings and agriculture sectors in this first stage.

The taxonomy's definition of climate adaptation and resilience could be refined to bring in a clearer classification and stronger monitoring. The draft taxonomy defines adaptation as increasing resilience and reducing vulnerability to climate hazards by minimising their current and future impacts on people, nature and assets, while including activities that strengthen adaptive capacity. This distinction between adapted activities – which directly reduce climate risks and avoid maladaptation, and activities that support adaptation – which enable resilience in other sectors, aligns with practices from other taxonomies (Spacey-Martín et al., 2024). Yet, expanding the scope to include monitoring and evidence of risk reduction, even though this is complex, can enable long-term impact assessment, encourage accountability and avoid maladaptation. To achieve this, the framework would benefit from more detailed guidance on how adaptation-focused actions can be identified and assessed.

There is an opportunity to make nature-based solutions (NbS) and biodiversity-related risks central to India's adaptation strategy. While the draft emphasises expanding forest cover for carbon sequestration, it could go further to address how nature loss, such as from deforestation, undermines total factor productivity, health and livelihoods, contributing to cascading systemic risks (Almeida et al., 2025). India could therefore define specific adaptation activities that are nature-based, such as mangrove restoration, watershed protection or agroforestry. This would also align with India's updated National Biodiversity Strategy and Action Plan as well as the Kunming-Montreal Global Biodiversity Framework (PIB, 2023). The Australian taxonomy has opted for a similar approach, prioritising blue-green infrastructure and NbS where viable (ASFI, 2025). Doing so would ensure more resilient and forward-looking climate finance frameworks given the increased intensification of nature and biodiversity risks.

Technical screening criteria (TSCs) should be prioritised for large-scale adaptation activities, while allowing flexibility for others. While TSCs are useful for upholding accountability, their application may be challenging, especially when it comes to NbS. The South African and EU experiences have revealed the difficulties in establishing standardised TSCs for adaptation due to the context-specific nature of such activities (CPI, 2025a; LNAS Group, 2024). Similarly, results from the pilot of the Mexican taxonomy found that the evaluation framework for adaptation is considered complex, with institutions reporting they are not yet equipped to meet its requirements (SHCP, 2025). For smaller-scale or localised interventions, qualitative criteria may be more appropriate in the short term. For example, Indonesia's and the Philippines' taxonomies offer simplified and principles-based TSCs for micro-, small- and medium-sized enterprises (MSMEs) (Kohli and Bhapta, forthcoming). However, for larger-scale infrastructure projects that have been shaped by climate scenario projections, quantitative metrics can be introduced to track their impact (LNAS Group, 2024).

Scenario-based risk assessments should be mainstreamed but supported by capacity-building. Countries such as Australia and Mexico already require the use of forward-looking climate scenarios in project evaluation, drawing on data from the IPCC and national science bodies; in the case of these two examples, these are the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Instituto Nacional de Ecología y Cambio Climático (INECC), respectively (ASFI, 2025; SHCP, 2024). Australia requires that scenarios should include at least one in which global warming exceeds 2.5°C by 2050 and that they consider the expected lifespan of the activity as far as possible. However, the use of these scenarios must be accompanied by capacity-building, such as training on "decision-making under uncertainty" (European Environment Agency, 2025) since models offer varied ranges tagged to different climate and policy scenarios. The Mexican experience found that institutions lack data and analytical tools to assess whether operations meet the adaptation criteria (SHCP, 2025).

2. Including the mining and refining of critical minerals

Mining and refinement industries should be included as transition activities in the taxonomy, together with guardrails to minimise these activities' environmental impacts. Even though not yet salient in the Indian case, the mining and refinement industries are likely to increase as India's demand for critical minerals grows in line with its economic and industrial ambitions. Plans to develop green supply chains almost always depend on mining and refinement, unless India accepts that it will rely fully on its trade partners. Facilitating investments in these two sectors, while guaranteeing high-environmental standards, can help alleviate price spikes on global markets, provide long-term energy security and ensure the energy matrix is decarbonised.

Summary of recommendations

- **Facilitate investment with guardrails.** Enable green finance flows into the critical minerals sector while ensuring high environmental standards, particularly to mitigate pollution, deforestation, displacement and social conflict.
- **Align with national development goals and DNSH principles.** Ensure the taxonomy supports India's *Atmanirbhar Bharat* initiative and reflects national commitments to human and labour rights.
- **Adopt a phased decarbonisation pathway.** Develop technical screening criteria that reflect India's 2070 net zero target, adjusting emissions thresholds accordingly and allowing for gradual compliance.
- **Incorporate international best practice.** Draw from the taxonomies of Australia, Brazil and Chile, which include mining due to its economic and strategic relevance and provide detailed emissions benchmarks.
- **Address strategic vulnerabilities in refining.** Prioritise domestic refining capacity to reduce dependence on geopolitically-sensitive supply chains and enhance resilience to trade disruptions.

Discussion of context and evidence

The demand for critical minerals is expected to rise significantly due to their essential role in deploying clean energy technologies. According to the International Energy Agency (IEA, 2025), global demand for these minerals could increase by a factor of 1.3 to 4.7 by 2040, depending on the specific mineral, relative to 2024 levels. Although current prices have declined due to temporary oversupply, long lead times for developing new mining projects indicate that future supply may not keep pace with demand. This imbalance could lead to global price spikes, posing a serious risk to the progress of the global energy transition (Boer et al., 2024; IEA, 2025). In India, the expansion of solar PV, wind turbines, and battery storage is projected to drive mineral demand up to 200 times higher by 2042 compared with 2025 levels (Chadha and Sivamani, 2024). This is especially concerning given that India relies heavily on imports for most of these critical minerals, and trade

with some of its key trading partners is exposed to significant geopolitical risks (Konda and Rakehja, 2024; Bansal and Chadha, 2025).

India holds untapped reserves of several critical minerals, including copper, nickel, cobalt, graphite and rare earth elements (REEs). However, except for copper, these reserves are not yet considered economically viable for extraction (Bansal and Chadha, 2025). Although the government has transitioned from a 'First Come, First Served' system to an auction-based model for allocating mining concessions, this shift has not significantly stimulated private sector exploration. Instead, investment has largely been directed towards projects led by government agencies (Chadha et al., 2023). In addition, the Ministry of Mines (2024) has attributed the annulment of some auctions to a lack of technically qualified bidders. Combined with the capital-intensive nature of the mining sector, these challenges have raised concerns about the commercial feasibility of developing a domestic critical minerals industry in India (Chadha et al., 2025).

Mineral refining is a critical bottleneck in the global value chain. Currently, China dominates the processing of most key minerals (IEA, 2025), and this concentration of refining capacity poses strategic vulnerabilities for countries like India, which aim to build resilient and self-sufficient green industrial ecosystems (Ministry of Mines, 2025). A surge in restrictive trade interventions, coupled with rising geopolitical tensions, has generated volatility episodes that impact the profitability of the value chain– recent evidence has shown that these trade restrictions tend to generate price spikes, usually due to expectational demand shocks (IEA, 2025; Miller and Martinez, 2025).

Mining and refining activities are highly polluting and significantly impact local communities. Copper mining, for instance, generates a substantial amount of CO_2 emissions through the consumption of non-renewable electricity and the utilisation of fossil fuels for machinery (Correa et al., 2021). More broadly, there is growing evidence of how the mining industry has become a driver of deforestation (Stanimirova et al., 2024; Patterson et al., 2024). These land-use changes are often accompanied by the destruction of water bodies (Peñaloza-Pacheco, et al., 2024), air pollution and acid drainage that negatively impacts soil quality (Worlanyo et al., 2021). Naturally, this has an impact on local – and often indigenous – communities. Social conflict tends to be sparked by the unequal power allocation between mining companies and the people most affected by the extraction of minerals (Jacka, 2018).

Australia, Brazil and Chile have included the mining sector within their taxonomies. The inclusion of this sector in the taxonomy results from three key trends:

1. **Acknowledging the importance of mineral extraction for achieving decarbonisation goals** (IEA, 2025)

2. **The economic relevance of the sector in the national context** (Secretaria de Política Econômica, 2023; Climate Bonds Initiative, 2021).

3. **The strategic importance of minerals involved** (ASFI, 2025).

It is worth noting that, unless deemed as a hard-to-abate sector, like steel and aluminium, there are limited examples of green taxonomies covering extractive industries, particularly the extraction and processing of critical minerals like lithium or nickel. Adding them to the Indian taxonomy would therefore be seen as highly innovative.

The taxonomy could further respond to national commitments and regulations and connect to Do No Significant Harm (DNSH) principles. Brazil's taxonomy dedicates a section to describe its distinct pledges in favour of human rights, labour rights and indigenous people's rights. Similarly, gender and racial equality make up part of the objectives that should align with decarbonisation goals (Secretaria de Política Econômica, 2023). Hence, a taxonomy that considers the mining industry and how it aligns with the taxonomy's DNSH principle (see Lesson 6) and the *Atmanirbhar Bharat* (self-sufficiency) initiative is ideal from a developmental as well as a decarbonisation perspective. The technical screening criteria may in fact reflect the non-feasibility of stringent standards in the short

run in order to achieve national development priorities, while simultaneously depicting a realistic decarbonisation pathway that reflects the growth of related green manufacturing industries that depend on domestic critical mineral extraction.

Support indigenisation through scale and export orientation. To bring down long-term costs and improve global competitiveness, India could actively scale up the production of indigenous green technologies. This calls for targeted support through production-linked incentives, robust testing and certification infrastructure, and policies that encourage exports. Expanding manufacturing capacity not only helps achieve economies of scale but also strengthens domestic value chains and drives innovation. In areas where India holds a comparative advantage, such as solar PV modules, biofertilizers, and nano-nutrients, a greater production scale can reduce unit costs and position Indian technologies for export to emerging markets facing similar climate and development challenges.

Australia's taxonomy provides detailed technical screening criteria for the decarbonisation of mining activities related to lithium, nickel, copper and iron ore. These criteria are presented as emission intensity trajectories that depend on the emissions' scope. Nevertheless, it is important to acknowledge that Australia aims to achieve net zero by 2050. India could therefore adjust the emissions thresholds provided by the Australian taxonomy such that the new thresholds reflected a decarbonisation pathway that would achieve net zero emissions by 2070. In some cases, since low-carbon technologies are nascent or non-existent, the inclusion of Research and Development (R&D) activities is also suggested – e.g. for green steel production.

3. Ensuring credibility and interoperability

India's climate finance remains largely domestically sourced, but attracting greater foreign investment will require a taxonomy that aligns with global standards to reduce risk perceptions and enhance credibility. Improving interoperability through clearer classification of activities, internationally benchmarked technical screening criteria, and referencing frameworks such as the Multi-Jurisdiction Common Ground Taxonomy (M-CGT) can help unlock these cross-border capital flows.

Summary of recommendations

- **Simplify the activity classification system** by replacing the current Tier 1, Tier 2, and Transition categories with a clearer structure — such as the two-category (Green/Transition) model used by Australia and Indonesia, or the traffic light system adopted by ASEAN and Singapore. This would reduce ambiguity, enhance usability and support global comparability.

- **Use the Multi-Jurisdiction Common Ground Taxonomy (M-CGT) as a reference** to enhance definitional consistency. Map India's taxonomy against the M-CGT and develop correspondence tables to help users assess the relative stringency and alignment of India's criteria with international benchmarks.

Discussion of context and evidence

India's climate finance landscape remains overwhelmingly domestic, highlighting the potential for foreign investment. The Climate Policy Initiative (CPI, 2024) estimates that in FY2021–22, domestic players accounted for around 83% of India's mitigation finance and 98% of adaptation finance. This suggests ample opportunity to draw in more foreign sources of capital to advance green financing in the country. However, foreign investors can be reluctant to allocate capital into emerging markets such as India due to concerns about weak performance against environmental, social and governance (ESG) criteria, inconsistent standards and risks of greenwashing (Mobilist, 2023).

To attract international capital, India's taxonomy must be designed with interoperability in mind, especially for sectors seeking foreign capital. As the IPSF Taxonomy Working Group (2022) notes, interoperable taxonomies help to "[avoid] unnecessary duplication of verifications, by increasing market confidence, reduce market segmentation, and help to facilitate cross-border green capital flows". This means ensuring its principles, definitions and thresholds align with those of major international frameworks. There are currently over 50 taxonomies globally, many tailored to local contexts. While local relevance is essential, interoperability provides clarity and confidence for cross-border investors. Singapore is among those countries that have recognised this imperative: its taxonomy aligns terminology and structure with the EU's across covered sectors to maximise global acceptance.

India's current classification system could benefit from greater conceptual clarity to support consistent application. The distinction between 'Climate Supportive Tier 1,' 'Tier 2' and 'Transition' activities may be challenging for users to interpret, as the definitions and thresholds are not always clearly delineated. Without clear timelines for when activities considered 'transitional' should be

phased out or aligned with climate supportive classifications, greenwashing risks could emerge. We acknowledge the DEA's efforts in opening up the current framework up for public consultation and making it contextual to India. However, India might instead consider adopting the two-category model (Green/Transition) used in Australia and Indonesia, or the traffic light system promoted by ASEAN and Singapore to improve interoperability.

The Multi-Jurisdiction Common Ground Taxonomy (M-CGT) can serve as a reference point for the design of the Indian taxonomy. Spearheaded by the People's Bank of China, the Monetary Authority of Singapore and the EU Directorate-General for Financial Stability, the M-CGT is designed to be expanded to cover other jurisdictions. Mapping India's proposed activities against the M-CGT, for example by creating correspondence tables, would help ensure definitional consistency and make it easier for the taxonomy's users to compare the stringency of India's TSCs against international benchmarks.

4. Adopting a tiered and dynamic regulatory design

India can adopt examples of best practice from other taxonomies by (i) improving clarity in the classification of climate supportive activities, to better distinguish between Tier 2 climate-supportive and transition activities, (ii) setting science-based thresholds for emissions and adaptation, and (iii) ensuring interoperability with global frameworks. A tiered and dynamic regulatory design can facilitate capital market access for nascent technologies and hard-to-abate sectors.

Summary of recommendations

- **Adopt a tiered classification system.** Introduce categories – Green, Transition, Ineligible – to reflect the varying decarbonisation potential and maturity of activities, especially in hard-to-abate sectors.
- **Support emerging technologies.** The inclusion of nascent technologies into the Transition tier, accompanied by a clear pathway to Green status, may facilitate their development.
- **Establish a transparent technical screening criteria cycle.** Define a structure process for TSC setting, reviewing and sunsetting.
- **Avoid vague or inadequate definitions for transition activities.** Define strict criteria, mandatory emission reduction targets, clear sunset dates, regular progress reviews and automatic declassification if targets are missed.
- **Incorporate cost considerations and technology flexibility.** Adopt a technology-neutral stance with flexibility to accommodate cheaper, imported technologies in the short term.

Discussion of context and evidence

The Australian taxonomy is a compelling example of a two-tier system. The methodology recognises there are activities that do not yet play a prominent role in decarbonisation. However, emerging technologies will become increasingly important as easy-to-abate emissions are first tackled. For instance, green steel, cost-effective hydrogen and carbon capture and storage are nascent technologies that currently play a limited role, but hold significant potential for future emissions reduction. To reflect this, the taxonomy categorises activities into **Green** and **Transition** tiers. Activities that fall under the green tier contribute to emissions reduction that aligns with a 1.5°C economy and meet strict technical screening criteria (TSC). Enabling activities – such as the manufacture of electrolysers or solar panels – are also covered by the Green label. In contrast, Transition industries do not meet the TSC, though components of the activity can at least partially reduce Scope 1 and 2 emissions (ASFI, 2025).

Singapore pioneered the tiered classification approach through its traffic light system. Similar to the Australian structure, the **Green** category applies to activities that operate "at near zero emissions or are on a 1.5°C-aligned pathway" (Monetary Authority of Singapore, 2023). **Amber** activities, while not yet fully aligned with the 1.5°C target, are progressing in that direction, or they facilitate decarbonisation with a prescribed *sunset date*. This category thus applies to existing infrastructure

that is transitioning towards decarbonisation. Importantly, the category is accompanied by specific *sunset dates* to prevent long-term lock-in of high-emitting assets. Finally, **Ineligible** activities fail to meet any of the Green or Amber classifications. These include activities that are not on a sufficiently rapid decarbonisation trajectory or are fundamentally unsustainable.

The taxonomy should incorporate adjustment periods and sunset clauses to support the inclusion of transition technologies. Given that several decarbonisation technologies are still nascent or too expensive, setting the TSCs with these standards may render some industries non-competitive. Nonetheless, non-economically viable solutions today may become the leading technology in the future. Hence, a formal review and adjustment process should be outlined such that TSCs remain relevant in the context of lowering emissions. It may be the case, therefore, that the TSCs become more restrictive over time as new decarbonisation strategies become cost-competitive.

ASEAN's taxonomy illustrates the TSC Stages and Maintenance Cycle (ASEAN Taxonomy Board, 2024):

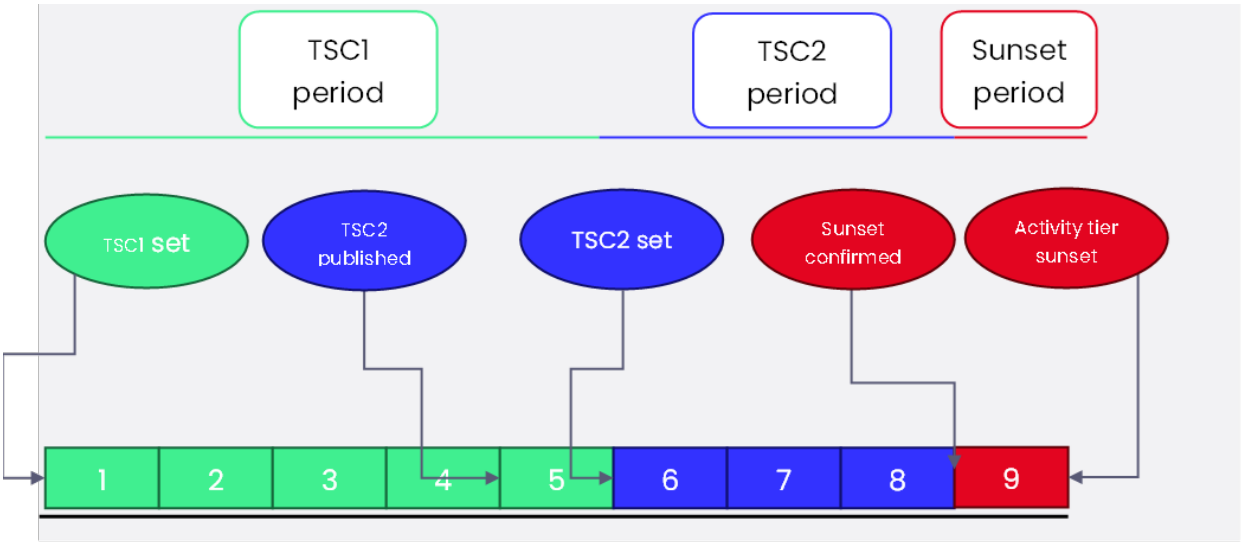
i. **Technical screening criteria setting:** As mentioned above, TSC-setting should follow an evidence-based process and should be led by a review body. The latter should reflect industries, and should properly represent different geographies, as well as the public and private sectors. In addition, constant reference to other taxonomies' TSCs can facilitate interoperability. For instance, several taxonomies – those of Australia, Brazil, Chile and Colombia – constantly refer to the EU's taxonomy thresholds for energy generation.

ii. **Technical Screening Criteria Period:** This is the timeframe between the setting of TSCs and their adjustment. It is recommended that it lasts five years, but this may vary depending on expected technological development. It ends either at the time a new set of standards is adopted, or when the existing set of standards ceases to be effective under a sunset clause.

iii. **Sunsetting:** The gradual phase-out of certain tiers within the classification system implies that all activities must ultimately progress towards achieving Green status. To ensure transparency and predictability, the Taxonomy's Board should formally communicate the sunset date for a given tier at least one year in advance. This announcement should coincide with the conclusion of the penultimate TSC period, allowing stakeholders sufficient time to prepare for the transition before the final evaluation cycle.

An adapted version of the ASEAN taxonomy board's cycle (ASEAN, 2024) is shown in Figure 5.1. Each box represents a year, and the changing colours depict the dynamic structure of the TSCs.

Figure 5.1. Adaptation of the ASEAN Taxonomy Board's TSC Stages and Maintenance Cycle



Evolution and sunset of Technical Screening Criteria

India needs to ensure proportionality in setting TSCs for transitional activities. Following Australia's lead, India can further strengthen credibility by embedding globally recognised transition pathways, such as the IEA's Net Zero Emissions scenario (NZE2050), to guide activity selection and threshold-setting. This would reassure investors and enable more seamless cross-border capital flows in support of India's low-carbon and climate-resilient development. However, where it is not possible for certain sectors to meet TSCs – for instance due to a lack of data, capacity or divergent emissions reduction pathways – India could consider embedding proportionality mechanisms into the taxonomy, such as phased implementation, exclusion thresholds or simplified TSCs. Failure to do so could hinder accurate classification and reporting due to a lack of reliable, granular data, inconsistent KPIs and limited technical capacity by financial institutions and regulators, as the EU, South Africa and Indonesia cases have demonstrated (see Hofstetter and Babayéguidian, 2024; Lötters-Viehof et al., 2023; and CPI, 2025b, respectively). To avoid this, India will have to invest in standardised data collection systems, define clear metrics and launch training programmes for financial sector professionals before launching.

Inadequate or vague definitions for transition technologies could lead to transition-washing risks. The cases of Indonesia (Iyer, 2024) and ASEAN (IEEFA, 2024) have demonstrated that inadequate or vague definitions for transition activities can lead to mislabelling and reduce market confidence. While proportionality should be embraced, transition labels should also be accompanied by strict criteria, mandatory emission reduction targets, clear sunset dates, regular progress reviews and automatic declassification if targets are missed.

Cost considerations and technology flexibility will need to be incorporated. The taxonomy should explicitly account for the cost-effectiveness of technologies, especially where indigenous solutions are still evolving. While prioritising domestically developed green technologies is important for self-reliance and economic multipliers, rigid thresholds could risk excluding more affordable international options. The framework could therefore adopt a technology-neutral stance with flexibility to accommodate cheaper, imported technologies in the short term, provided they meet environmental performance standards.

5. Minimising social risks

India's draft climate finance taxonomy should embed just transition principles to align its net zero goals with the realities of coal dependence. Drawing on global examples, the taxonomy should also recognise investments in reskilling, land repurposing and rehabilitation as eligible activities.

Summary of recommendations

- **Clarify and strengthen criteria for social protection.** Move beyond high-level inclusion by providing clear, verifiable criteria for social safeguards. This can be accomplished by using national laws and aligning with international benchmarks such as the ILO Core Conventions and UNGPs.

- **Include activities that support India's coal phase-out.** Recognise investments in reskilling, land repurposing, and coal asset rehabilitation as eligible for the taxonomy. Draw on international examples such as Indonesia's taxonomy and the World Bank's Just Transition Taxonomy to guide implementation.

Discussion of context and evidence

India must balance the need for rapid development and energy security with its commitment to a net zero future. The draft climate finance taxonomy acknowledges coal as an integral part of India's current growth trajectory and energy mix, especially in the push to achieve developed country status by 2047. Yet this pathway must converge with India's net zero by 2070 commitment, meaning a managed, equitable coal phaseout is inevitable. While improvements in coal efficiency are important in the short term, the long-term solution lies in scaling up renewables, accelerating clean technology deployment and preparing for the social and economic shifts that will accompany this transition. Including coal in an amber or transition classification could limit foreign investment by creating reputational risks for international investors (Iyer, 2024).

Coal phaseout should be accompanied by initiatives encompassing job reskilling that caters to India's economic context. With an estimated 1.2 million people employed in the coal sector (CIF, 2021), any shift away from coal must be matched with investment in reskilling, job creation, land repurposing and rehabilitation, as well as economic diversification in coal-dependent regions. This is particularly relevant as India recently hit a key milestone: for the first time, 50% of the country's electricity generation came from non-fossil fuel sources in July 2025 (Reuters, 2025). This signals positive momentum, but also accentuates the need to ensure that coal communities are not left behind as the country moves towards a cleaner energy mix. The American and Chinese experiences have shown that the geographical distribution of coal workers in relation to green opportunities and mismatches in skill requirements have aggravated the challenge (Wu et al, 2024; Lim et al, 2023).

Clarity, enforceability and verification are key to making social safeguards credible. One lesson from South Africa's experience is that without clear guidance on how to show alignment with the DNSH and Minimum Social Safeguards (MSS) principles, uptake of safeguards can stall (CPI, 2025a). India could address this proactively by anchoring its safeguards in national laws and recognised international norms, and by offering clear criteria and disclosure requirements for users.

India's taxonomy can learn from international experiences and serve as a catalyst for a just coal transition. The experience of Germany, Poland and the UK has shown that successful coal phaseouts require long-term planning, multi-stakeholder coordination and targeted support for affected communities. Emerging economies such as Indonesia and South Africa are obtaining support through initiatives like the Just Energy Transition Partnership (JETP) and the Asian Development Bank's Energy Transition Mechanism (ETM) to accelerate the transition. India's taxonomy can build on these efforts by explicitly recognising transition-enabling investments in vocational training, land repurposing and rehabilitation of coal assets as eligible activities. Indonesia's taxonomy offers a clear precedent, requiring early retirement of coal-fired power plants to be accompanied by a just transition plan, including a one-year advance notice, worker retraining and job-seeking assistance. The World Bank's Just Transition Taxonomy (2024) also provides a menu of qualifying activities that India can incorporate.

6. Strengthening inclusive agriculture

India's agriculture sector must balance both climate adaptation and mitigation, given its high emissions and deep vulnerability to climate impacts. To ensure effectiveness and inclusivity, the taxonomy should adopt a phased, principles-based approach tailored to the needs of smallholder farmers, who make up 86% of the sector. Drawing on lessons from Mexico, the Philippines and Australia, India should strengthen farmer engagement, improve data systems, and invest in capacity-building to support long-term resilience.

Summary of recommendations

- **Engage smallholder farmers in taxonomy design.** Involve smallholders directly in identifying eligible activities and shaping future thresholds to ensure the taxonomy reflects practical realities. This approach draws on Indigenous knowledge, improves local relevance and aligns with global best practice for inclusive green finance, as seen in Mexico's taxonomy pilot, for example.

- **Phase in robust technical standards.** Introduce a gradual, adaptive approach to technical screening criteria starting with principles-based guidance and advancing to more stringent benchmarks as data and institutional capacity improve.

Discussion of context and evidence

Decarbonisation should accompany adaptation and resilience in India's agriculture sector. The Indian government has reasonably categorised carbon emissions from the sector as 'survival emissions', meaning that they are necessary to produce essential commodities (PIB, 2023). In 2020 agriculture comprised a noteworthy 13.7% of India's total emissions, second only to the energy sector's 75.7%, with key emitters arising from enteric fermentation from livestock, agricultural soils and rice cultivation (MoEFCC, 2024). While the Indian government has not made any commitments to reducing emissions from agriculture in its Nationally Determined Contributions (NDCs), it is estimated that 16% of India's US$864 billion climate mitigation budget needs to be spent on the sector (Adhya and Sahoo, 2024).

India's agricultural productivity remains highly vulnerable to the effects of climate change. Approximately 12% of the landmass is exposed to floods and droughts threaten 68% of the cultivable land (Tamuly and Mukhopadhyay, 2022). Beyond extreme weather and its effects on water availability, climate change also alters crops and forage yields and increases the spread of pests and diseases, which in turn affect livestock health and long-term productivity (Bett et al., 2017). This then has wider implications for food security and nutritional outcomes (Datta et al, 2022).

The taxonomy design should be tailored to India's majority smallholder farmers. As stated in the taxonomy, 86% of India's farmers own land smaller than 2 acres in area (NABARD, 2022). It is vital, therefore, to ensure that the taxonomy is relevant and accessible to smallholder farmers, as they often have fewer resources, live in more remote regions and have more limited technical capacity (Donatti et al., 2017). While their inclusion in the framework is encouraging, the complexity and diversity of India's agricultural systems make it challenging to apply rigid at the outset. A principles-based approach would encourage early alignment and learning and allow future refinement as capacity and data improve.

Creating criteria that are practical to use will be key to attracting private sector participation in agriculture. A core lesson from Mexico's taxonomy pilot is that TSCs must be realistic and inclusive of smaller market participants (SHCP, 2025). Indeed, Indian farmers have already begun implementing adaptive practices — from water management to crop diversification and soil conservation (Bahinipati et al., 2021; Datta et al., 2022). Actively coordinating with and incorporating their insights into the taxonomy would honour India's emphasis on Indigenous knowledge and enhance the taxonomy's relevance in practice.

India could adopt a phased approach, starting with a principles-based framework and evolving into more detailed TSCs over time. At this stage, information asymmetry in the agriculture sector makes the adoption of stringent metrics in the taxonomy a challenging endeavour. While starting with a principles-based framework can be helpful, evolving into quantitative thresholds will enhance usability over time and minimise subjective language (GTAG, 2023). The Philippines' sustainable finance taxonomy provides a useful model: it identifies international certification schemes for relevant agricultural commodities to ensure robust sustainability benchmarks, for example the UTZ and Rainforest Alliance certifications (BSP, 2024).

Better data and farmer capacity must underpin agricultural taxonomy design, which can help refine the approach for the TSCs in the longer term. Australia's taxonomy emphasises the importance of improving data collection to optimise the management of agricultural technologies and accelerate decarbonisation. It also identifies the acquisition of monitoring and evaluation (M&E) technologies as a relevant activity to better measure emissions abatement and carbon stocks (ASFI, 2025). In the Indian context, M&E technologies can also help demonstrate the financial impacts of investments in the agriculture sector (Adhya and Sahoo, 2024). In addition, the taxonomy includes training and capacity-building components, such as staff training in the use of precision technologies for agriculture (ASFI, 2025). Recognising these needs, there are already ongoing efforts by the Indian Government to build farmer capacity.

7. Avoiding fragmentation and concentration

India's taxonomy is one of more than 50 sustainable finance taxonomies that are being planned, developed or already implemented around the world. As a second-mover, India can benefit from avoiding some common mistakes in the development and implementation of its taxonomies, such as fragmented design and an overreliance on a limited number of financial instruments.

Summary of recommendations

- **Embed the taxonomy within existing policy frameworks.** Leverage the regulatory frameworks that have already been set by the RBI and SEBI, ensure policy consistency between ministries, and build transparent grievance and audit systems.
- **Develop more diverse financial products.** Use the taxonomy as an opportunity to diversify from green loans to green bonds, insurance and equity products to reach different market segments.
- **Develop criteria compatible with micro, small and medium-sized enterprises (MSMEs).** The framework could offer simplified entry points for MSMEs by incorporating activity-based or principle-based approaches instead of highly technical thresholds.

Discussion of context and evidence

A fragmented and complex design would confuse users. Taxonomies are dynamic by nature, but overlapping standards, scattered guidelines and slow coordination would reduce the likelihood of uptake. Fragmented taxonomy frameworks have been observed in China (Yue and Nedopil, 2025) and ASEAN (IEEFA, 2024), creating confusion among users. A particular issue relates to alignment with existing frameworks. At present, the draft taxonomy excludes some sectors recognised by the Reserve Bank of India (RBI) and Securities and Exchange Board of India (SEBI) frameworks, such as pollution prevention, biodiversity conservation, waste management and sustainable land use. At the same time, it includes hard-to-abate sectors such as iron, steel and cement, which are not part of the RBI's or SEBI's current frameworks (RBI, 2023; SEBI, 2023).

Taxonomies should be embedded in broader regulatory policy frameworks. Divergence between different frameworks may lead to confusion among financial institutions and investors. Greater alignment with existing regulatory frameworks or a clear explanation of the rationale for sectoral choices is essential for ensuring coherence and facilitating implementation. Where taxonomies are not embedded in broader policy frameworks, their enforceability and influence are reduced, as seen in South Africa (Lötters-Viehof et al., 2023). Mixed policy signals, unclear timelines and a lack of grievance mechanisms can also raise investor risk perception, as in Indonesia (Iyer, 2024). India might therefore seek to embed the taxonomy within existing regulatory frameworks, such as those already set by the RBI and SEBI, as well as ensuring policy consistency across ministries and building transparent grievance and audit systems from day one.

Existing taxonomies have relied heavily on the use of loans. The heavy focus on green loans (as seen in China) has led to the underdevelopment of other tools such as green bonds, which restricts reach. India could use the development of the taxonomy as an opportunity to develop diverse financial products, including bonds, insurance and equity, to reach different market segments (Yue and Nedopil, 2025).

Designing MSME-compatible criteria and incentives. The taxonomies of Indonesia and the Philippines both provide differentiated treatment for micro, small and medium-sized enterprises (MSMEs) within their frameworks. Indonesia uses a dual system: large firms are assessed through detailed Technical Screening Criteria (TSC), while MSMEs follow a simpler model called the Sector-Agnostic Decision Tree (SDT). MSMEs answer yes/no questions to identify the main environmental objective their activity supports, such as climate mitigation, climate adaptation, biodiversity conservation or a circular economy. They must then show that the activity does no significant harm to other objectives and meets basic social safeguards. Based on this, the activity is classified as green, transition or unqualified. The Philippines ensures that MSME activities follow national laws and do not fall under an exclusion list. Activities are then mapped to eligible Use of Proceeds (UoP) categories such as renewable energy or clean transport. If mapping is unclear, a traffic light system (green, amber, red) is used to assess sustainability. The taxonomy encourages third-party certifications and requires financial institutions to carry out additional checks, such as interviews or capacity reviews, especially when certifications are not available (BSP, 2024). Whether India should follow a similar path is one question that local stakeholders will deliberate on and decide, but these examples present useful insights for developing a taxonomy that is both inclusive and effective.

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