Building a Climate-Ready Indian State

Institutions and Governance for Transformative Low-Carbon Development

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Executive Summary

Climate change is an all-of-government and an all-ofsociety problem. Because of its scale and scope, the need for rapid transformation, and the potential for disruptive change, India, like other countries, needs to re-envision and build a state capable of handling this challenge. At the same time, India's approach must achieve development and mitigation simultaneously and work with the grain of our governance traditions. This suggests key principles to guide Indian climate governance:

- 1. Advance mitigation through the pursuit of equitable low-carbon development pathways.
 - Develop policies around multiple objectives and evaluate them on multiple metrics of success.
 - Develop integrated responses across sectors and governance scales.
- 2. Mainstream climate considerations through credible information, procedural requirements, and financial incentives rather than hierarchical commands.
 - Ensure governance processes are open and transparent to induce mainstreaming.
- 3. Build stable, consistent, law-backed governance mechanisms that are also evolutionary to respond to new information and circumstances.

To operationalise these principles, India needs both new and re-configured climate institutions. These should ideally be embedded in a new framework climate law to enable all parts of government and broader society to mainstream climate change, rather than to directly steer government. These include:

- · A Low Carbon Development Commission (LCDC), which
 - Serve as a non-executive body to generate credible analysis on low-carbon pathways and developmentmitigation linkages and convene stakeholders for deliberation
 - Be established as an independent agency backed by law and reporting to Parliament.
 - Be composed of experts and stakeholders, backed by a full-time director and permanent analytical staff.
- · Enhanced executive capabilities in the form of:
 - A renewed Executive Committee on Climate Change (ECCC) backed by the authority of the Prime Minister's Office and convened by the Principal Secretary.
 - Enhanced technical and policy capacities within line ministries to consider climate linkages with ministerial portfolios.
 - Ministry of Environment, Forests and Climate Change (MoEFCC) as continued nodal ministry with key functions.

This institutional structure is proposed to drive change through an information-based regulatory mechanism. The LCDC - which plays analytical and deliberative roles – will lead to the formation of credible low-carbon development opportunities. Ministries will be induced, not mandated, to engage with these opportunities through annual procedural requirements such as a climate mainstreaming report submitted to Parliament, subject to review and reporting. The intent is to create a virtuous cycle of opportunity creation and action.

Challenge Institution	Strategy Setting	Building Consensus	Coordinated Implementation
Low Carbon Development Commission	- Generate analytically backed policy-relevant research on low carbon development pathways, synergies and trade-offs across multiple objectives and emission trajectories Foster low-carbon ideas within ministries - Provide advice and feedback to ministries, states and cities engaged in low carbon planning - Review and recommend changes in climate governance in response to emerging challenges, such as consideration of 'netzero' pathways	 Convene government and stakeholders around: Low-carbon development pathways and emissions trajectories and pledges Contentious issues leading to winners and losers Sub-national discussions Cross-ministerial collaboration Inform public debate through annual submissions to Parliament, White Papers, and championing data transparency. 	 Review and analyze annual ministerial reports Review key UNFCCC communications Advise ECCC and ministries on cross-ministerial policy packages and missions
Executive Committee on Climate Change + Line Ministries + Ministry of Environment, Forests and Climate Change	- Modify and update sectoral and cross-sectoral strategies drawing on LCDC analysis and agenda-setting - Identify cross-sectoral opportunities and pathways in discussion with the LCDC	- Respond to Parliamentary questions and recommendations - Provide necessary data and inputs to LCDC for informing public debate	- ECCC · Solve implementation challenges · Guide cross-sectoral missions - Line Ministries · Implement policies · Build cross-sectoral missions · Submit annual mainstreaming report to Parliament - MoEFCC · Continue as nodal ministry

Introduction

Climate change is an all-of-government problem. Because the scale and scope of the problem is vast and the urgency of the challenge requires transformative change, climate change cannot be the preserve of only one part of the government. Instead, climate change objectives need to be internalised and mainstreamed across governments — centre, states, and local. However, climate change can by no means be addressed by government alone; it is also an all-of society problem. Industries, labour, civil society, researchers, and media all have a role to play in developing ideas, building agreement around them, and implementing change. Because India's climate governance architecture should not only harness all of government but also enable all of society, India needs an effective, open, climate-ready state.

The focus of this brief is to lay out an approach to Indian climate institutions and governance. Consistent with India's approach to climate change as a rapidly emerging economy, we suggest India's institutional structure should be aimed at generating and adopting low-carbon development pathways (See Box 1). Building on, but going beyond, the co-benefits approach of India's National Action Plan on Climate Change (NAPCC), India now needs to actively plan for a low-carbon future. Doing so implies going beyond energy and emissions policies to also look at deeper economic structures such as patterns of urbanisation, industrialisation, and job creation. Over time, India's institutional structure will also need to evolve to steer the country to a net-zero pathway.

BOX 1

Low-carbon development pathways

Development pathways matter because choices made today shape opportunities and constraints tomorrow. Low carbon development pathways, increasingly discussed in many countries, explicitly seek choices that ensure development objectives are met in ways that limit carbon emissions (Zou et. al, 2016; Altieri et. al. 2016; Spencer and Dubash, 2021).

Mitigation must consider development implications because India is starting from a low base of energy use and development. But equally, because India is transforming rapidly, it has opportunities to avoid locking in high-carbon infrastructure and create jobs in emergent low-carbon industries. For example, a renewable energy transition could better promote economic opportunity and job creation if policies pay explicit attention to manufacturing capacity and job creation in addition to capacity addition.

Present day development choices also shape future mitigation opportunities. Patterns of urbanisation and industrialisation, for example, lock-in patterns of future energy demand that cannot be easily changed subsequently. For example, spatial patterns of urbanisation define commuting needs; once locked-in these cannot be modified by future changes in incentives. Mitigation choices are embedded in development choices (Spencer and Dubash, 2021).

Avoiding lock-in and maximising the synergies between climate action and development require explicit and upfront attention to low-carbon development pathways. This, in turn, requires broadening the policy toolkit, with attention not only to energy and environment policies, but also to fiscal policies, public investment, education, and regional development. Not least, it requires state capacity to develop strategic visions, ensure coordination across policy domains, and steer future development choices.

India's approach to climate governance must also work with the grain of broader Indian governance. Ministries have existing priorities and are best induced to internalise climate change consistent with these priorities; directives are unlikely to work. Yet, to provide the necessary stability and mandate to encourage consideration of low-carbon development, emergent climate governance must have statutory backing. A new framework climate law that enables rather than directs would best provide the stability and the statutory authority required to induce consideration of climate change and promote low-carbon development pathways.

The focus of this brief is on national climate governance with only partial discussion of the complementary federal governance structures required, which will be addressed elsewhere. Consequently, the scope of this discussion is substantially limited to mitigation

as adaptation concerns, in particular, need far greater attention to state and local governance.

The discussion here draws on 31 interviews with officials, politicians and analysts as part of an analysis of Indian climate governance (Pillai & Dubash, 2021a). It also selectively draws on and adapts insights from a larger eight country study — spanning developed and developing cases — on 'Varieties of Climate Governance' forthcoming in *Environmental Politics*. This shows that climate governance in much of the world, including India, has been *ad hoc*, with shifting and unstable institutions inadequately based in analysis and with imperfect mechanisms of coordination. We start with principles that should inform climate governance, then discuss governance challenges and proposed institutional solutions, and finally lay out how the system could work in practice.

Principles

1. Advance mitigation through the pursuit of equitable low-carbon development pathways.

- Develop policies around multiple objectives and evaluate them on multiple metrics of success.
- Develop integrated responses across sectors and governance scales.

In India, considerations of mitigation and development are inseparable. Starting from a low-base, India needs more energy per person for development. But, as a rapidly transforming developing economy, India also has the opportunity to pursue low carbon development pathways that simultaneously bring mitigation and development gains (See Box 1). To do so requires a multiple-objective approach built around multiple metrics of success: development metrics like jobs and air quality, distributional metrics to ensure equity, as well as mitigation-focused metrics like emissions reduced and emissions intensity. It also follows that shifting development pathways require an integrated response across sectors and scales. Low-carbon transportation shifts, for example, also involve considering urbanisation and electricity supply. Transformation requires going beyond single policies to policy packages that combine regulations, finance, and information measures. Not least, many adaptation decisions, around water, land and urbanisation for example, require integration across sub-national scales.

- 2. Mainstream climate considerations through credible information, procedural requirements, and financial incentives rather than hierarchical commands.
 - Ensure governance processes are open and transparent to induce mainstreaming.

Given existing ministerial objectives, hierarchical mandates to prioritise climate considerations are less feasible than inducing opportunistic engagement with low-carbon opportunities, backed by analysis and information. However, Indian climate governance should move beyond ad hoc opportunism to focus on systematic and structured identification of low-carbon opportunities and their implementation. Analysis must be highly credible and broadly debated to drive change and is also essential for engagement with international processes. Procedural requirements and financial incentives are useful means to induce consideration of these opportunities and their operationalisation. Open and transparent decision processes are particularly important to deliberate on multiple visions of a low-carbon future. Transparent and deliberative decisions also provide a voice for vulnerable communities, encourage buy-in by diverse interests, coalesce public agreement, make for more stable long-term decisions and enhance the credibility of international pledges.

3. Build stable, consistent, law-backed governance mechanisms that are also evolutionary to respond to new information and circumstances.

Indianclimate governance institutions have frequently lacked durability or functioned inconsistently. To induce long-term change, stable institutions, ideally anchored in law, are important. However, since politics, policy, and technology are rapidly changing in this area, governance mechanisms must also be evolutionary. In particular, the mechanisms suitable for an India with growing emissions may need to be adjusted for an India after emissions peak, when net zero objectives come into focus.

Addressing the challenges of climate governance

Addressing climate change through promotion of low-carbon development pathways brings substantial governance challenges. First, identifying opportunities for low-carbon development requires strategic thinking and analytical capability. Second, any transformational change, even if it brings future gains, is also likely to impose short term costs on some; institutional mechanisms to build consensus and mitigate costs to potential losers can help manage these costs. Third, the scale and scope of climate mitigation requires addressing governance challenges across sectors and scales through appropriate coordination mechanisms. Below we discuss the nature of each challenge in the Indian context, explain the current institutional situation, and recommend a way forward.

Strategy Setting: Visions and Opportunities

Promoting low carbon development pathways requires generating a strategic vision about future low-carbon development opportunities. These ideas need to be informed by credible analysis and relevant to development challenges and debates. Accordingly, India needs governance institutions that address three strategic tasks:

- Identify and formulate low-carbon development pathways: Identify strategic opportunities to develop low-carbon pathways that avoid locking-in to high-carbon infrastructure and behaviour patterns. This requires setting a long-term vision for transitions already underway, such as a shift from fossil fuel-based to renewable electricity or ensuring sustainable urbanisation, thereby sending a signal to guide private sector investment. Strategy setting should also involve examining key shifts needed in technology, policy, institutions, financing needs, and behaviour to bring about transformative change.
- Analyse synergies and trade-offs across multiple objectives: Strategy setting requires analysis of synergies and trade-offs with development

- objectives. These include the scope for job creation, energy security, distributional consequences, and impacts on the local environment. Identifying the multiple benefits of low-carbon transitions is important to help build support for implementation of these directional shifts in development pathways.
- Examine emissions trajectories: Translate domestic low-carbon transitions to India's greenhouse gas emissions trajectory in terms suitable for international pledges and obligations to enable further strengthening and refinement of domestic actions. Annual reporting on India's progress in limiting emissions should be compiled and placed in the public domain and tabled in Parliament. This role, combined with the above two roles, are central to providing the analytical basis for India's periodic formulation and upgrading of its Paris pledge, as well as developing its Long-Term Strategy.

Analytical credibility is central to the strategy setting process. This implies both a high standard of analytical capacity, independence from interests — business, environmental and labour, among others — as well as insulation from immediate political messaging and expediency. Moreover, to have an economy and society-wide view, strategy-setting should not be affiliated with any line ministry. In addition, identifying low-carbon opportunities is by no means a technical exercise alone. Ideas and visions must be relevant to existing policy priorities and debates. Strategy setting must be informed by a mix of analytical credibility and policy relevance.

Current situation: Strategy setting currently occurs in an *ad hoc* manner. A now-dormant Prime Minister's Council on Climate Change (PMCCC), along with the former Office of the Prime Minister's Special Envoy played a role in shaping national missions, which had mixed success in identifying change opportunities. Strategic analysis of emissions pathways has been carried out through consultants commissioned by MoEFCC, episodically by special committees within the Planning Commission, and in-house by Niti Aayog.

BOX 2

Low-Carbon Development Commission: Structure and Attributes

A new Low-Carbon Development Commission (LCDC) is required, in particular to address the challenges of strategy setting and building consensus. The LCDC should have the following design features:

- Multistakeholder commission, with a mix of technical commissioners and stakeholders from industry, labour, civil society and media, appointed on a fixed-term and parttime basis.
- Technical secretariat with a full time director and adequate technical staff to support commissioners.
- Independent status, backed by law, with accountability to Parliament.
- Non-executive role, focused on generating credible and relevant analysis and stimulating broad engagement and deliberation.
- Mandate to interface with research institutions, government bodies and stakeholders to obtain information, compile analysis and foster deliberation.

Creation of an LCDC is consistent with precedence in Indian governance for independent commissions, such as on electricity, air quality, competition and human rights. Alternative approaches, such as locating the LCDC within existing bodies such as Niti Aayog, risks subjecting the LCDC to the pressures of short-term decision-making and global political positioning, and undercutting independence.

Proposal: A new, independent 'Low-Carbon Development Commission' (LCDC) (See Box 2) should be established to play a strategy setting role, bringing together the capabilities for credible analysis and relevance to development challenges and policy debates. Based on these capabilities, the LCDC would help generate ideas, and inject them into-policy making processes by playing the following roles:

- Generate analytically-backed, policy-relevant research, including by synthesizing insights from the broader research community, creating working groups, and conducting or commissioning specialised research, on:
 - · low carbon development pathways
 - · Synergies and trade-offs across multiple objectives
 - · Emissions trajectories
- Ensure wide consideration of ideas, using White Papers, convenings and public engagement.
- Foster engagement of low-carbon ideas within ministries, by sharing reports, and reviewing annual 'mainstreaming plans' prepared by ministries (see below).
- Provide advice and feedback to ministries, states and cities engaged in low carbon planning.
- Review and recommend changes in climate governance in response to emerging challenges, such as consideration of 'net-zero' pathways.

BOX 3:

The UK Climate Change Committee

The UK Climate Change Committee (CCC) is a statutory body that is tasked with undertaking credible analysis of mitigation measures (Fankhauser et al., 2018). In the UK case, the law mandates the CCC to advise the government on five-yearly carbon budgets. Built around reputed members and a professional staff of about 35, its reports are tabled in the UK Parliament. They influence public debate through reports and letters that are used by media, civil society, and courts to hold government to account. The credibility of their recommendations also allows government room to implement policies that might otherwise be politically costly. While fixed carbon budgets are not appropriate for India at the moment, the analytical credibility and independence of the CCC are useful design elements to consider for Indian climate governance.

Building Consensus

To make progress on low-carbon development pathways, India needs to build consensus around the intent to transform, and the pathways to doing so. The government will not be able to effect this transformation by fiat. It is far more likely to happen if industry, investors, citizen groups, labour groups, and even opposition parties are on board, or at least if they feel their voices are taken seriously. To achieve this requires wellstructured and open convenings of various interests. It requires alternative visions of the future to be debated, and the relative impact of different uncertainties – about technology, the external environment, and political context – to be discussed. Open discussion also helps build norms about consumer behaviour, an important element of a low-carbon future (Creutzig et al., 2018; Grubler et al., 2018). Building consensus requires deliberate and well-structured institutional creation in order to:

- Credibly *convene* a broad range of stakeholders to deliberate, on the basis of analysis, on:
 - » Development pathways, including sectoral and technology pathways, strategic choices among pathways, the generation of jobs and other cobenefits, and distributional concerns and a just transition;
 - » India's long-term mitigation path, particularly with respect to international pledges, including seeking discussion around technical studies, and providing advice to government;
 - » States' views through regular convenings;
 - » Specific contentious policy issues that lead to creation of winners and losers as a result of lowcarbon transitions;
 - » Creation of sub-groups and bodies for detailed exploration of specific issues.
- Stimulate and inform public debate, including through public writings, commissioning white papers and placing them in the public domain, and maintaining an open portal for public communication.

 Assist effective implementation, including stimulating coordination through mission creation and interaction with ministries and the Executive Committee on Climate Change.

Current situation: There is no body playing this role. The Prime Minister's Council on Climate Change (PMCCC) played some of these roles in the past, providing feedback on missions, suggesting new missions, and advising on negotiating strategies. However, the PMCCC did not convene broader stakeholders, and has reportedly not met since 2015. Moreover, it was never an open and transparent body, nor was it embedded in a larger governance structure with well-defined roles. On occasion, the MoEFCC has convened sub-groups to discuss issues, but these were typically closed door and episodic events.

Proposal: To help build consensus, we envision the multi-stakeholder Low-Carbon Development Commission serving as a platform to convene deliberation on the pros and cons of alternative low-carbon pathways. As Box 4 on Brazil and Germany suggests, credible platforms for deliberation can promote informed consideration of alternative pathways. The LCDC would be able to convene around strong analysis, as it would be able to draw on the analytical capacity of a permanent staff. As a joint analytical and deliberative body, its core role would be to serve as the connective tissue between various parts of the governance system - the analysis done by the staff of the LCDC and other analysts, the implementation work of ministries and the governments, and broader stakeholders. By so doing, it would be well placed to also play a substantively important role in setting agendas, ensuring quality of information, and providing opportunities for voice. Specific tasks include:

- · Convenings, as described above;
- Reviewing and providing feedback to annual mainstreaming reports of line ministries (described further below);
- Providing advice to government on key decisions, including NDC formulation;
- Serving as a portal for the public, civil society, industry, and labour to express opinions and concerns;
- · Stimulating data transparency.

BOX 4

Open climate institutions in Brazil and Germany

Brazil's Climate Change Forum generates proposals and reacts to those floated by government. It is led by the President and aims to give equal voice to ministries, members of Congress, subnational elected officials, and civil society. It influenced key moments, such as the drafting of a 2008 national plan and a 2060 net-zero proposal (Hochstetler, n.d.).

Germany's tradition of Enquête Commissions put climate change on the governance map in the 1980s and '90s. They are enquiries conducted by crossparty bodies in Parliament through public hearings and expert testimony. Early and credible enquiries helped forge cross-party consensus on a new and complex issue (Jacobsson & Lauber, 2006).

While these bodies are steeped in the governance culture of their own countries, there are important lessons to be learned on the significant gains from deliberative structures in climate governance.

Coordinated Implementation

The causes and consequences of climate change span a wide swath of economic activity that cuts across ministerial portfolios. In many cases, transformative change cannot be achieved within the silos of existing ministries, but requires 'climate policy integration' (Candel & Biesbroek, 2016). A growing literature suggests that transformation requires not just policies, but packages of policies that are comprehensive, balanced, and consistent (Rogge & Reichardt, 2016). For all these reasons, effective climate governance requires ongoing mechanisms of horizontal coordination.

In addition, since many areas salient for climate change are governed at sub-national levels – state and city – vertical mechanisms of coordination are required (Pillai & Dubash, 2021b). These should ideally go beyond top-down direction of the centre to the states, which has

circumscribed and somewhat limited the effectiveness of state action plans on climate change (Dubash & Jogesh, 2014) to more meaningfully integrate climate change into inter-state relations, and to encourage and support states to be 'laboratories of experimentation' (Jogesh & Dubash, 2015).

Stable Institutions for coordination are required to play the following roles:

Horizontal coordination:

- Spur cross-sector and cross-ministerial transformative efforts, articulated as missions but with an explicit cross-sector intent, based on careful analysis and identification of opportunities (supported by the LCDC).
- Ensure creation of policy packages that meet the benchmarks of comprehensiveness, balance, and consistency.
- Incentivize ministries to examine scope for mainstreaming climate change, including participating in cross-ministerial efforts.

Vertical coordination:

- Stimulate and enable state engagement with climate change through provision of analytical frameworks prepared by the LCDC, capacity support, and financing aimed at state experimentation.
- Facilitate cross-state learning and interaction through structured and regular inter-state convenings. These may be particularly salient for adaptation.
- Incentivize state-level action through financial incentives, potentially routed through modifications in the terms of the Finance Commission.
- Incentivize creation of multi-state collectives around resource endowments that could include, for example, state coalitions around solar power, a just transition away from coal, coastal adaptation, and Himalayan protection.

To induce horizontal cooperation, sectoral ministries will need to be induced to break out of departmental silos built around specific objectives. The approach to changing this dynamic should rest on availability of credible information, combined with procedural shifts and incentives that induce ministries to engage this

information, ultimately changing patterns and metrics of accountability. Once ministries are thus incentivised, the role of a coordinating mechanism will change from a structure that dictates change from the top-down to one that also allows ideas to emerge from the bottom-up through learning-by-doing, with institutional channels for coordination available to support their development.

Current situation: Following the NAPCC, many ministries have established climate cells but, for the most part, they have been thinly staffed and with limited capacity (Dubash & Joseph, 2016). In addition, some of the coordination roles described here have been met, but episodically, and coordinating institutions have waxed and waned over time (Pillai & Dubash, 2021a). During the era of a Prime Minister's Special Envoy (2007-2010), there was active coordination led by the PMO around a few missions. While the MoEFCC is formally authorised to coordinate for climate change, implicit ministerial hierarchies limit its ability to fully play this role. In 2013, an Executive Committee on Climate Change was created, convened by the Principal Secretary to the Prime Minister, to trouble shoot and overcome implementation obstacles. This body has more recently been complemented by an Apex Committee for Implementation of the Paris Agreement (AIPA) (2020 onwards) under the MoEFCC, which has not, as yet, compiled a track record. The LCDC and mechanisms suggested here would enhance the effectiveness of the AIPA. On occasion, Niti Aayog has stepped in to play a larger coordinating and consistency role by creating transformative cross-sector efforts such as a National Mission on Transformative Mobility and Battery Storage. Thus, while episodic coordination has occurred, it has been undermined by a revolving door of organisations, the weak convening ability of the MoEFCC, and unclear mandates

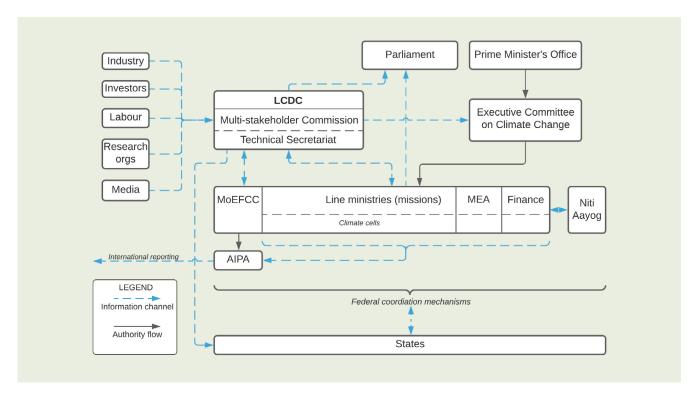
Proposal: To address horizontal coordination challenges in climate governance within the executive, we suggest a three-step series of actions:

 Capacities of line ministries, technical and policy, to engage in climate change need to be enhanced building on the existing structure of climate change cells. These cells should be better linked with the larger governance structure proposed here - with the LCDC, more and better focused interlocutors in other ministries, and with a stable cross-ministerial coordinating body (see below) — to enhance their effectiveness.

- Incentives can be shifted over time by requiring each ministry to prepare an annual mainstreaming climate plan in Parliament that engages with LCDC-developed ideas on opportunities for development pathways and place these in the public domain. Ideally, a mechanism to financially incentivize mainstreaming should also be established. Ultimately, the accountability structures of these ministries should evolve to include mitigation outcomes, along with sector-specific outcomes. The approach proposed here, however, prioritises first familiarising ministries with the approach and then inducing them to seek climate-related linkages to their existing work rather than mandating a wholesale shift in approach overnight.
- Platforms for coordination and collaboration should be more systematically developed.
 - » Assign the Executive Committee on Climate Change, convened by the Principal Secretary to the Prime Minister, with the explicit and limited mandate of executive-level coordination and convening, with requirements for regular meetings and consistent functioning.
 - » Promote an enhanced mission structure, backed by an LCDC, supported with better staffed climate cells in ministries, and with explicit articulation of a cross-ministerial vision and approach.
 - » The MoEFCC, currently the nodal ministry for climate change under Conduct of Business Rules (CBR), would continue to anchor representation at international negotiations, coordinate the Biennial Update Reports to the UNFCCC, and help assemble India's Nationally Determined Contributions to the Paris process. The recently notified Apex Committee for the Implementation of the Paris Agreement will be able to draw on the resources of the LCDC and the opinions of a proposed new convening body (described below) in these processes. Horizontally, the MoEFCC should continue to have a voice in crossministerial policy conversations where climate is an objective. Finally, it will continue to helm the National Steering Committee on Climate Change (NSCCC), a crucial financial conduit for subnational climate projects.

Figure 1 lays out a schematic diagram of how new and existing institutions would be organised in a revitalized climate governance architecture.

FIGURE 1: Proposed Climate Governance Architecture

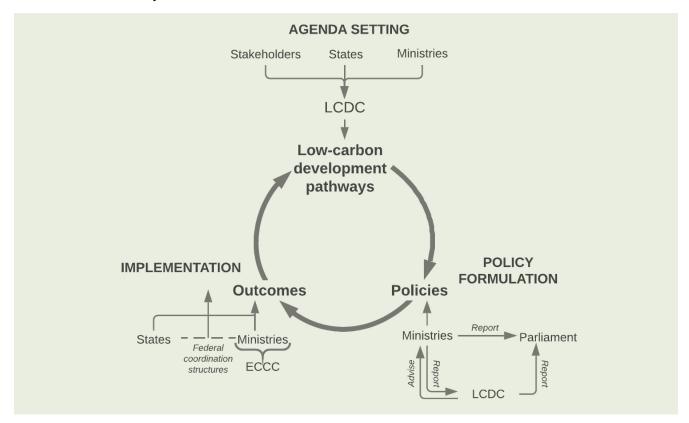


Climate Governance in Practice

The institutional structure proposed here is designed to create conditions for the proactive identification of low-carbon development pathways, induce engagement with and policymaking around these pathways, and effective implementation of them. The system is designed to induce this shift, rather than mandate it, and amplify and strengthen a virtuous cycle of policymaking over time. This dynamic is captured in Figure 2 below structured around agenda-setting, policy formulation, and implementation functions (adapted from Howlett et al., 2020).

national scales), analysis, and spaces for stakeholder input. We envision this space being the point in government where conversations about the future of the electricity sector, sustainable and low-carbon cities, and the merits of alternative formulations of India's NDC pledge – from carbon intensity to net-zero targets – are framed, informed, debated, and transformed into long-term guides for policymaking, including India's Long-Term Strategy as required under the Paris Agreement. Three aspects of this architecture are particularly important. First, based on its analytical credibility and

FIGURE 2: Climate Policy Process



Agenda-setting: The creation of an analytically informed but deliberative LCDC is intended to construct a space where probing questions about the potential and opportunities for economy-wide or sectoral low-carbon transitions are asked and answered. We therefore propose a design that shines a light on, and gives life to, low-carbon development pathways. This is designed as an independent space that can help set the agenda through convenings (by sector, across state and

its multistakeholder nature, the LCDC should have the legitimacy to convene stakeholders from across society and, if needed, to bring together those with divergent views to narrow differences. Second, the LCDC should be built to inject analytical credibility, and, as a voice on debates that cannot be ignored, to advise ministries, and project an informed opinion on contentious issues to the public. Third, the LCDC is a non-executive body; its ability to drive change and inject ideas through

the system should rest on its ability to bring together and represent multiple views and present convincing analysis and information.

Policy formulation: Ministries and executive bodies will be induced to engage with emergent ideas and agendas through a set of procedural requirements. Drawing on ideas, reports, plans and strategies produced by LCDC, ministries will be asked to submit annual low carbon reports to Parliament that draw on multiple metrics and capture their progress in mainstreaming climate considerations. These reports should be tabled before Parliament for review, alongside an analysis by the LCDC of annual ministerial low-carbon mainstreaming plans. Thus, to begin with, ministries are only subject to a procedural requirement. As ministries identify opportunities to bring together ministerial objectives with low carbon development, the intent is that they will more completely integrate climate considerations into their workings, including budgetary requests and plans. Augmented climate capacities within the ministries will enable the planning and reporting process and, in doing so, reshape ministerial objectives over time. The LCDC also aggregates ministerial plans and reports in Parliament, and thereby establishes an annual national conversation on mitigation progress. By internalising climate objectives into budgets, this process also shifts budgetary allocations toward a low-carbon future. However, it would accelerate the transition if this process if complemented by explicit financial incentives. This might involve a competitive national fund to support promising initiatives or a revised annual budgetary allocation methodology in the Finance Ministry to reward mitigation. Finally, a similar process can be put into place for cross-sectoral missions.

Implementation: Implementation frequently requires executive troubleshooting and smoothening of obstacles. Historically, climate governance in India has emphasized this role to the exclusion of agenda-setting and policy formulation. The ECCC, an existing body of senior bureaucrats created to monitor progress on the National Action Plan on Climate Change, has served this role and can continue to do so. Since it is chaired by the Principal Secretary, it can navigate thorny coordination issues because it channels the authority of the Prime Minister's Office. However, the ECCC has traditionally limited its scope to the NAPCC's eight missions and has met inconsistently. With procedural requirements and financial incentives motivating policy action across ministries, the ECCC should ideally engage a wider gamut of issues and with greater regularity.

As Figure 2 indicates, the climate policymaking loop is closed with review and evaluation of policy progress by the LCDC. The LCDC could evaluate sectoral transitions against multiple development and mitigation metrics. Doing so also enhances the credibility of India's international monitoring, reporting and verification processes to the UNFCCC. The LCDC should also be concerned with evaluating the functions of the system itself, thereby complementing horizontal accountability systems like the Parliament Standing Committees and the courts. Both bodies should also ideally engage actively with state-level evaluation. Over time, the LCDC is also the body that should develop recommendations on the evolution of India's climate governance structure. For example, once Indian emissions have peaked, or faced with new scientific information, the LCDC could recommend re-weighting or re-formulating evaluation metrics, or suggest additional modifications to legal and regulatory frameworks.

Conclusion

This brief proposes a pathway toward a climate-ready Indian state, built around clear principles, the creation of an important new institution, the Low-Carbon Development Commission, and strengthening of others, and establishment of systems that mainstream climate considerations into India's decision-making apparatus. Collectively, the ideas presented here will help address the key governance challenges of setting strategy, building consensus, and coordinating implementation. This approach to climate governance should ideally be embedded in law, to provide predictability, stability, and authority. While this proposal may appear involved, it is consistent with the scale and complexity of the task. It holds out the promise of maximising synergies between climate and development, working with the grain of India's existing governance structure, and harnessing the creativity that lies both inside and outside government.

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