



Role Of Subnational Actors in India's Climate Governance: State and Urban Responses in The Post-Paris Era (2015–2025)

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ABSTRACT

This paper analyses the contribution of subnational actors to India's climate governance during the post-Paris Agreement period, from 2015 to 2025. The research design employed in the study is qualitative and descriptive, utilising only secondary sources, including policy reports, State Action Plans on Climate Change, and national urban missions. Under the framework of Multi-Level Governance, one can find that although Indian states and cities have been mainstreaming climate action, their impact has been limited by financial reliance, institutional capacity lapse and limitation of coordination. Enhancing multi-level alignment and empowering sub-national institutions are essential towards the attainment of Indian climate commitments.

Keywords: *Climate Governance, Subnational Actors, Paris Agreement, India.*

INTRODUCTION

The 2015 Paris Agreement is seen as the first step in the world history of climate control, focusing on creating a universal and flexible regime to combat climate change and restrain world temperature increase (Held and Roger, 2018). Although the Paris Agreement marks an improvement of top-down strategies used previously, it also represents a more decentralised system founded on Nationally Determined Contributions, with countries developing context-specific climate policies. The Agreement was a major change in climate policy orientation and governance mechanisms in the case of India, which is among the largest emitters of greenhouse gases in the world and one of the largest developing economies globally.

Before 2015, the climate policy framework of India was more or less centralised as the Union Government dominated the process via initiatives like the National Action Plan on Climate Change (Jorgensen et al., 2015). The post-Paris era has, however, revealed a progressive implication to higher engagements of subnational entities, such as governments of states, local authorities of cities, and local organisations, which are becoming commendable players in climate action. These actors will carry out State Action Plans on Climate Change and implement local adaptation and mitigation measures in areas like energy management, land use, urban planning and disaster resilience. Subnational climate governance in India is a symptom of a wider shift in the mode of governance to a multi-level system of governance, combining the top-down provision of policy direction and the bottom-up application. Other states like Gujarat, Tamil Nadu and Maharashtra have been innovative in their efforts to promote renewable energy, manage their waste and plan their urban areas in a more sustainable way. Likewise, other cities like Delhi and Pune have implemented specific solutions to air quality and green transport.

Nevertheless, the subnational climate action is not yet even because of the uneven financial resource base, institutional capacity, and administrative effectiveness across the regions.

It is against this backdrop that this paper critically reviews the significance and efficacy of subnational actors in the implementation process of the commitments by India within the Paris agreement between 2015 and 2025. It evaluates local institution interpretation and operationalisation of climate objectives, structural and fiscal limitations on such institutions and the degree to which the decentralised governance has enhanced environmental sustainability and climate resilience in India.

REVIEW OF LITERATURE

Research literature on the role of climate governance in India highlights the increasing role of subnational actors, including states, municipalities and local communities, in the development of national and global climate goals. The shift in policy model towards a decentralised model after the 2015 Paris agreement shifted priorities towards the local implementation, coordination and financing.

Murthy (2019) distinguishes the cities and states in India as normal sustainers of the global climate objectives that can be converted into the local ones. Cities like Delhi, Mumbai, and Bengaluru have implemented action plans that aim at reducing environmental pollution, promoting renewable energy, and sustainable urban development. However, Murthy warns that the contributions of the subnational level may still be too fragmented unless there is institutional coherence and capacity building.

Hsu, Weinfurter, and Xu (2017) also highlight that local response to the national climate strategies is something that can promote transparency and accountability. The integrated form of monitoring and reporting systems is the recommendation of their research in regard to the consistency in ensuring the state-level initiatives and the Nationally Determined Contributions (NDCs) in India.

According to Manga (2018), the inability to execute renewable energy projects is characterised by bureaucratic fragmentation and overlapping jurisdictions, among other factors linked to a lack of technical expertise. In the same way, Mukhia, Shen, and Xiaolong (2024) emphasise that decentralised climate finance and deepened public-private relations would play a vital role in achieving fair policy results in all parts of India that have a diverse population.

Mor and Ghimire (2022) are concerned with the necessity of designing powerful transparency and data systems to assess subnational performance. They conclude that despite the increase in the national reporting systems, many local authorities do not have real emissions and adaptation information to enhance accountability.

On the whole, the available literature confirms the importance of subnational bodies in climate transformation in India; however, there exist obstacles such as financial, coordination, and institutional capacity. The fact that subnational plans are evaluated in limited ways after 2015 highlights the necessity of systematic research aimed at the evaluation of how decentralised governance can be utilised to functionally fulfil the India promise under the Paris Agreement.

OBJECTIVES

1. To evaluate the role of subnational actors (state and urban governments) in India's climate governance post-2015.
2. To identify the challenges of financing, coordination, and implementation at the state and city levels.
3. To propose recommendations for strengthening multi-level climate governance in India.

Hypotheses

H1: Subnational actors, including state and urban governments, play a significant and increasing role in implementing India's climate governance framework in the post-Paris Agreement era.

H2: The effectiveness of subnational climate action in India is constrained by financial limitations, weak intergovernmental coordination, and institutional capacity gaps.

H3: Strengthening coordination mechanisms, financial autonomy, and capacity-building programs for subnational institutions will enhance the overall effectiveness of India's multi-level climate governance system.

RESEARCH METHODOLOGY

This study adopts a qualitative and descriptive research design to examine the role of subnational actors in India's climate governance during the post-Paris Agreement period from 2015 to 2025. The research relies exclusively on secondary data to assess policy evolution, institutional mechanisms, and implementation outcomes across governance levels. Data were collected from authoritative sources, including government policy documents, State Action Plans on Climate Change, National Clean Air Programme reports, Smart Cities Mission documents, and publications by the Ministry of Environment, Forest and Climate Change, Ministry of New and Renewable Energy, Ministry of Housing and Urban Affairs, and NITI Aayog. Peer-reviewed journals and reports from TERI, CEEW, and ICLEI South Asia were also analysed. A thematic and comparative content analysis approach is applied to evaluate mitigation and adaptation initiatives, institutional capacity, coordination mechanisms, and policy innovation within a Multi-Level Governance framework.

Theoretical Framework

The theoretical basis of this paper is the Multi-Level Governance (MLG) Theory, which gives a strong directive in terms of analysing the distribution of decision-making power, financial resources and policy responsibilities across various levels of government. The theory can be traced to the European Union literature on governance, as it asserts a stand against the purely hierarchical form of governance and highlights the networks of interdependent actors, which operate at the national, subnational, and transnational levels of governance. Within the parameter of climate governance, the MLG viewpoint posits that a successful climate response action would involve concerted efforts by various stakeholders, which would comprise central ministries, state governments, city local entities, research organisations, the private players, and international organisations. Based on this framework, the research investigates how India's climate governance structure has transformed to progressively become more participatory and decentralised after the Paris Agreement, which used to be mainly centralised and top-down. In particular, it uses the framework to determine how power and accountability between central and subnational institutions, coordination mechanisms, whether effective in policy convergence and resources distribution, and horizontal cooperation between states and cities, and vertical coordination across the levels of governance. In general, the MLG framework allows developing a more subtle interpretation of post-Paris climate governance in India and justifies the main thesis of the study that the subnational actors have to be enabled to generate equitable, sustainable and resilient climate outcomes.

RESULTS AND DISCUSSION

The results presented in this section form a part of qualitative content analysis of secondary data (national policy documents, State Action Plans on Climate Change, SAPCCs, urban mission reports, publications issued by government agencies and research institutions). The paper emphasises the role, performance, and weaknesses of the subnational actors in climate governance in India at the post-Paris Agreement period between 2015 and 2025.

Generalising Climate Action at the Sub-national Level

results suggest that the concern of climate has been mainstreamed in the subnational governance structures in India since 2015. The majority of states have reviewed or developed SAPCCs to meet national climate priorities and India's country-specific Nationally Determined Contributions. SAPCCs have been confirmed to be the key tools in ensuring that national climate goals are converted to state mitigation and adaptation plans (Ministry of Environment, Forest and Climate Change [MoEFCC], n.d.).

Analytical reviews also suggest that every state and Union Territory has either developed or discussed climate action plans that focus on region-specific vulnerability in the sectors, including renewable energy, agriculture, water resources, forestry and disaster management (Oxford Policy Management [OPML], 2015). Literary descriptions underline the fact that SAPCCs are a trend of strategic India becoming the decentralised and context-sensitive climate governance (Climate Change Academy, n.d.).

The content analysis shows that relatively comprehensive approaches involving integration of climate objectives into the sectoral development policies have been taken by states such as Gujarat, Tamil Nadu, Maharashtra, and Kerala. The proliferation of renewable energy, climate-resilient agriculture, and the reduction of disaster risk prove to be the dominant trends that support Hypothesis H1 on the rising presence of subnational actors in climate management (OPML, 2015).

Policy Innovation and Leadership at the State Level

There is a considerable difference in performance on the state levels and policy innovation. The leadership of the climate in Gujarat is represented through its SAPCC, which favours the use of renewable energy, adaptation to the coastal climatic conditions, and mitigation policies, which show how climate action can be integrated into the development goals (Government of Gujarat, n.d.). Proactive governance, like having policy initiatives like the Gujarat State Solar Policy 2021, which include incentives for having hybrid renewable energy parks and the involvement of the private sector, shows further evidence of proactive governance.

The other states are leading by sector-specific innovation. The urban-oriented mitigation approach in the state of Maharashtra is evidenced by its focus on electric mobility and city waste management, whereas the stipulation on disaster resilience and community-based adaptation can be deemed in Kerala due to the target of the decentralisation of planning and high level of engagement by the local government. These trends are in line with the MLG theory because its focus is on decentralised innovation on a larger national level.

Urban Climate Action and National Missions

Urban local governments have become significant stakeholders in climate governance, specifically through centrally enabled urban missions. Actual documents of the Ministry of Housing and Urban Affairs reveal that programs like the Smart Cities Mission and AMRUT involve sustainability-based goals, like smart mobility, energy-efficient infrastructure, better drainage, and waste management reforms (Ministry of Housing and Urban Affairs [MoHUA], n.d.).

The additional examples of the urban climate integration can be given by the synopsis of the Climate Smart Cities Assessment Framework created by the National Institute of Urban Affairs, according to which the cities are measured on the basis of the parameters that are connected with climate mitigation, climate adaptation, and institutional capacity (National Institute of Urban Affairs [NIUA], n.d.). The framework denotes gradual incorporation of climate considerations in urban planning, though there are differences in results in the cities.

The National Clean Air Programme is an important intervention aiming to reduce air pollution in the urban environment. According to the official papers, there are 131 non-attainment cities under NCAP, and the efforts are dedicated to monitoring air quality, action plans specific to the city, and educating people (MoEFCC, n.d.). Non-steady improvements in the level of particulate matter, however, point towards the conditional efficacy of urban climate action. The results partially confirm Hypothesis H1 alongside the significance of the institutional capacity, funding, and coordination.

Financial Constraints and Institutional Challenges

One of the most prominent agencies is the chronic financial constraint that exists among subnational governments. Policy reviews demonstrate that states and city local authorities are heavily dependent on centrally sponsored programmes and externally sponsored programmes as a way of funding climate measures, constraining fiscal independence and planning ability (MoEFCC, n.d.). Complexities in procurement procedures, scarcity of technical knowledge, and no special climate finance departments are also causing barriers to international sources of climate finance like the Green Climate Fund, which underlies Hypothesis H2.

Differences in institutional capacity also exist by distance among the states and urban centres. Although other states have developed climate change cells and coordination schemes, others do not have specialised personnel and technical infrastructure. This implies that there are coordination gaps between environment departments and sectoral agencies due to content analysis of SAPCC implementation reviews (OPML, 2015). On the urban level, there is a leakage in monitoring and accountability because of administrative fragmentation and the absence of standardised data systems. Even though programs such as the Climate Smart Cities Assessment Framework are trying to eliminate these gaps, the practice is still in its initial phase (NIUA, n.d.).

CONCLUSION

The paper concludes that India's climate governance has been transformed to multi-levels where the role of the subnational actors is significant in crafting national promises into local implementation. States and urban local governments have posted remarkable achievements in the deployment of renewable energy, urban sustainability, and adaptation planning. Nonetheless, there is still a set of challenges related to effective implementation, such as persistent financial constraints, the limits of the institutional capacity, and inadequate coordination mechanisms. To achieve better outcomes, it is necessary to increase fiscal autonomy, implement more robust intergovernmental coordination, and invest in long-term capacity-building efforts. The focus of empowering subnational institutions can consequently help in bridging the gap between the national ambition in climate and the domestic implementation.

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