



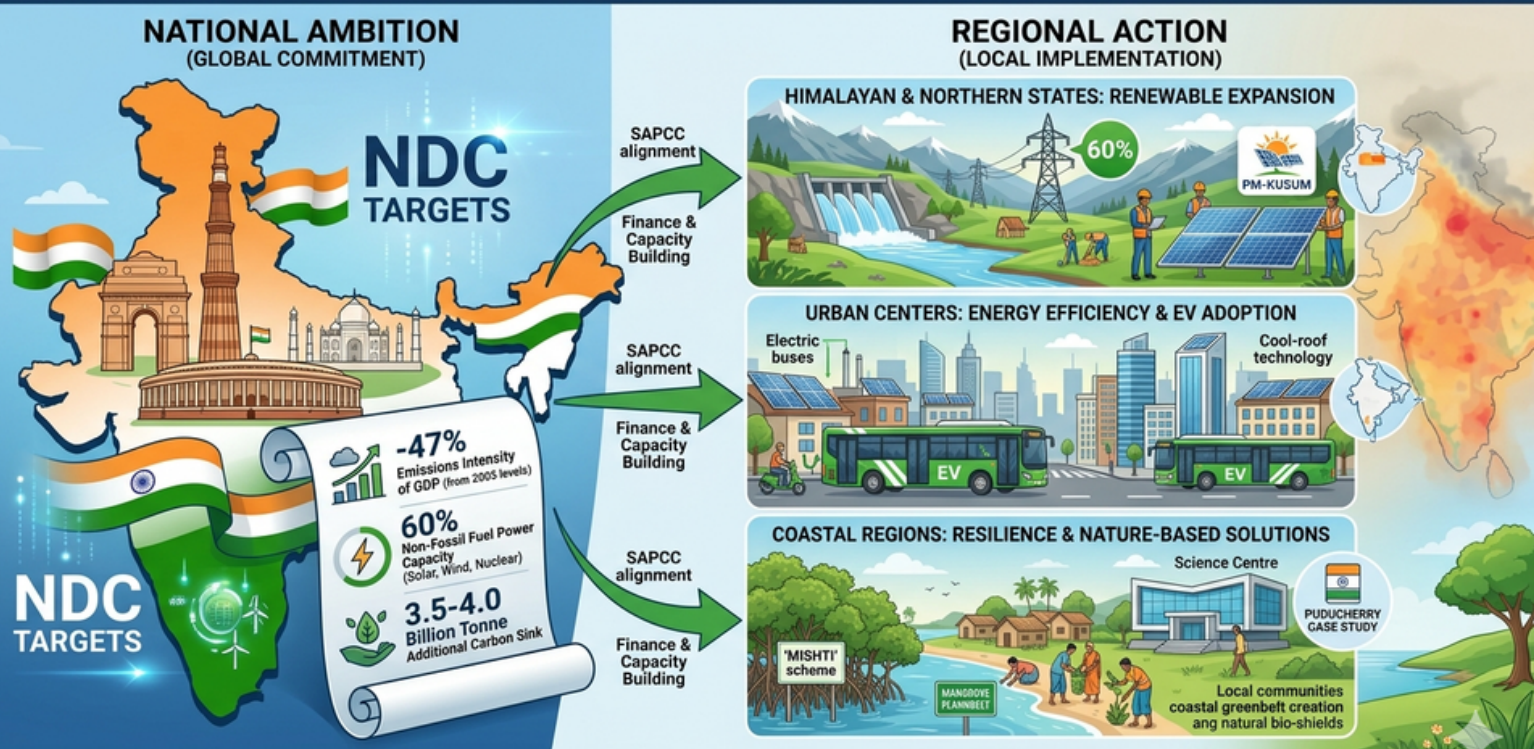
GOVERNMENT OF PUDUCHERRY

DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT

PUDUCHERRY CLIMATE CHANGE CELL

INDIA'S 2035 CLIMATE ROADMAP : FROM NATIONAL AMBITION TO REGIONAL ACTION

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India's 2035 Climate Roadmap: From National Ambition to Regional Action

In a landmark move for global climate diplomacy, the Union Cabinet, chaired by Hon'ble Prime Minister of India, officially approved India's updated Nationally Determined Contributions (NDC) for the period (2031 – 2035) on March 25, 2026. This updated framework signals India's transition from setting long-term visions to executing granular, verifiable climate actions.

The new targets are built on a foundation of success. India surpassed its original 2030 renewable energy goals several years ahead of schedule, with non-fossil fuel capacity reaching **52.57%** by February 2026 - already leapfrogging the 50% target initially set for the end of the decade.

The Quantitative Pillars of 2035

India's updated pledge focuses on three core metrics that define its decarbonization trajectory:

- **Emissions Intensity:** A commitment to reduce the emissions intensity of its GDP by **47%** from 2005 levels.
- **Energy Transition:** A new target to ensure **60%** of cumulative electric power installed capacity comes from non-fossil fuel-based energy sources.
- **Carbon Sequestration:** The creation of an additional carbon sink of **3.5 to 4.0 billion tonnes** of CO₂ equivalent through intensive forest and tree cover expansion.

While the 60% energy target is seen by some experts as conservative - given that the Central Electricity Authority (CEA) projects a potential 70% achievement - the government appears to be maintaining its strategy of 'under-promising and over-delivering'.



Beyond Numbers: A Holistic Strategy

The 2035 NDC is not merely a mathematical exercise; it emphasizes Resilience and Lifestyle. Key qualitative priorities include:

- **Infrastructure Resilience:** Hardening ecosystems in the Himalayas and coastal zones against extreme weather.
- **Mission LiFE:** Elevating 'Lifestyle for Environment' into a global movement.
- **Green Innovation:** Prioritizing R&D in Green Hydrogen and advanced battery storage to solve the intermittency challenges of renewables.

The "How": Bridging National Goals with State Action

The true evolution of India's climate policy lies in the alignment between the National NDC and the State Action Plans on Climate Change (SAPCC). If the NDC represents the 'What', the SAPCCs represent the 'How'.



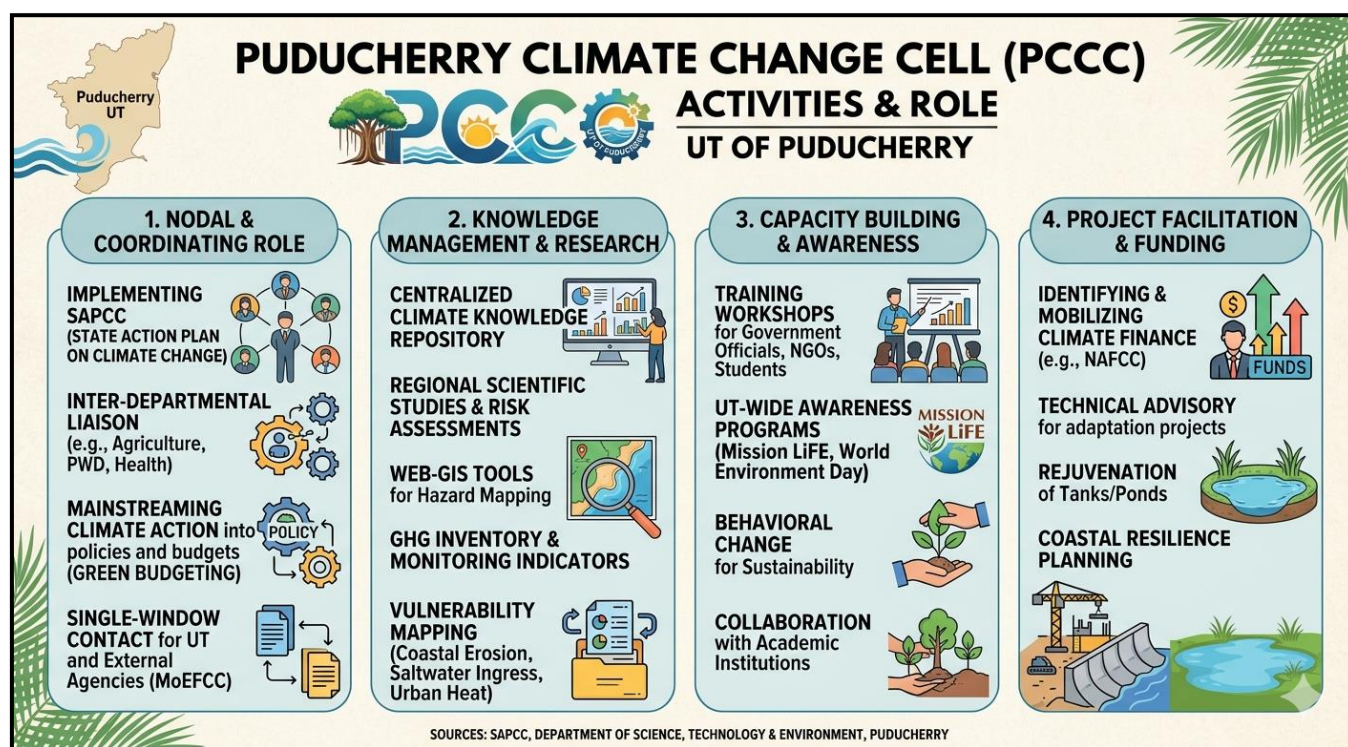
NDC 2035 Goal	State-Level (SAPCC) Implementation
47% Emissions Reduction	Electrification of state transport fleets and green building codes.
60% non-Fossil Power	Decentralized solar via PM-KUSUM and district-level rooftop solar.
3.5 - 4.0 B-Tonne Carbon Sink	Mangrove restoration (MISHTI) and state-led agroforestry.

Regional Adaptation: The Local Frontier

Adaptation is inherently local. Recent record-breaking temperatures in 2024 and 2025 have pushed states to adopt Heat Action Plans (HAPs), focusing on "cool roofs" and urban greening. In coastal regions, the focus has shifted toward Nature-Based Solutions (NbS), using mangroves as bio-shields against storm surges. Mangroves are highly effective at dissipating the energy of storm surges and cyclonic waves. Their complex root systems trap sediment, which helps land elevations keep pace with rising sea levels.

Case Study: The Puducherry Model

The Union Territory of Puducherry serves as a blueprint for this localized approach. The Puducherry Climate Change Cell operates as research, advisory and coordinating body under the Department of Science, Technology and Environment (DSTE).



Its activities are categorized into four primary functional areas:

1. Nodal & Coordinating Role

Serving as the central nervous system for regional environmental governance, the nodal and coordinating role of this agency involves a comprehensive, multi-layered approach to climate resilience and policy integration. Primarily, it functions as the lead authority for the State Action Plan on Climate Change (SAPCC), overseeing the entire lifecycle of the initiative from the initial technical preparation to the rigorous long-term monitoring of implementation benchmarks.

Beyond mere planning, the agency facilitates critical inter-departmental liaison, acting as a strategic bridge between diverse sectors such as agriculture, public works and healthcare to ensure that climate mitigation and adaptation strategies are not siloed but are instead mainstreamed into core departmental policies and fiscal frameworks, notably through mechanisms like Green Budgeting. This systemic integration is further reinforced by its designation as a single-window contact point, streamlining communication between the Union Territory government and high-level external entities - including the Ministry of Environment, Forest and Climate Change (MoEFCC) and various international funding bodies - thereby consolidating resource mobilization, reporting and technical exchange into one efficient, authoritative channel.

2. Knowledge Management & Research

Acting as a centralized intellectual hub, the agency functions as a Knowledge Repository by consolidating fragmented climate data into a unified, accessible platform designed to empower policymakers, academic researchers and the public with actionable insights. This data-driven approach is underpinned by a robust commitment to Scientific Studies that focuses on region-specific challenges, moving beyond generalities to address local environmental realities. Key among these initiatives are comprehensive vulnerability and risk assessments that identify high-stakes areas, alongside the development of sophisticated Geospatial and Decision Support Systems to visualize hazards and streamline disaster response. Furthermore, the agency conducts rigorous Greenhouse Gas (GHG) Inventory and Emission Profiling to track carbon footprints, while maintaining a specialized focus on coastal dynamics by assessing past, present and projected changes in the coastline to mitigate the impacts of sea-level rise and erosion.

3. Capacity Building & Awareness

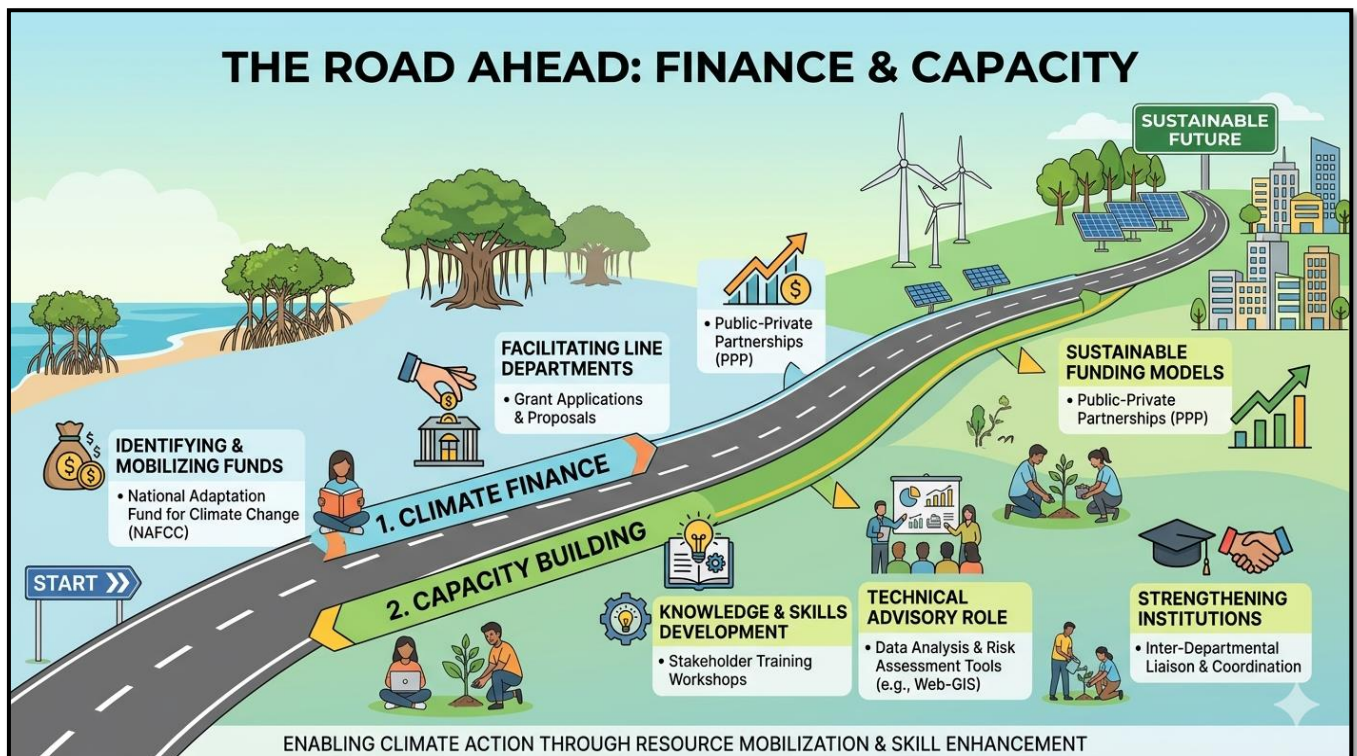
Beyond its technical and administrative mandates, the agency serves as a vital engine for human capital development through a multi-tiered strategy of Capacity Building and Awareness. This involves a rigorous schedule of Stakeholder Training, where government officials, NGOs and students participate in specialized workshops designed to sharpen technical competencies in climate mitigation and adaptation strategies. To foster a broader culture of environmental stewardship, the agency spearheads Public Awareness campaigns, such as Mission LiFE and World Environment Day celebrations, which aim to translate complex climate science into actionable behavioral changes for the public. This commitment to long-term sustainability is further solidified through Educational Support, where the agency acts as a bridge to academia by providing scholarships and fostering strategic collaborations with premier institutions like Pondicherry University and NIT-Puducherry, thereby nurturing the next generation of climate researchers and ensuring that regional policy is continuously informed by cutting-edge academic rigor.

4. Project Facilitation & Funding

The agency serves as a critical financial and technical catalyst, streamlining the path from conceptual planning to on-the-ground project execution through its Project Facilitation and Funding initiatives. By acting as a strategic consultant for Climate Finance, the agency assists various line departments in navigating the complex landscape of environmental economics, identifying viable funding streams and mobilizing resources from prestigious sources such as the National Adaptation Fund for Climate Change (NAFCC). This financial support is coupled with a robust Technical Advisory role, wherein the agency supplies the essential baseline data and specialized expertise required to design high-impact interventions.

These efforts are particularly visible in localized adaptation projects, such as the ecological rejuvenation of traditional tanks and ponds and the engineering of long-term coastal resilience, ensuring that infrastructure development is both scientifically sound and financially sustainable.

The Road Ahead: Finance and Capacity



Despite the robust framework, two significant hurdles remain: the Finance Gap and Institutional Capacity. Ensuring the seamless flow of green finance from the Centre to state-level projects is critical. Furthermore, states require enhanced technical staffing and digital monitoring tools to move from ‘plans on paper’ to ‘impact on the ground’.

The 2035 Climate Roadmap signals a pivotal shift in India's environmental strategy, moving from high-level global commitments to a model of granular, verifiable regional action. By successfully surpassing early renewable energy targets and establishing clear quantitative pillars for emissions, power capacity and carbon sequestration, the nation has laid a robust foundation for a sustainable future.

The ‘Puducherry Model’ serves as a particularly inspiring blueprint within this framework, demonstrating how specialized units like the Puducherry Climate Change Cell (PCCC) can effectively bridge the gap between national ambition and local implementation. Through its focus on inter-departmental coordination, scientific research and community-driven nature-based solutions, this localized approach ensures that climate resilience is not just a policy goal, but a lived reality. As these strategies take root across every state and Union Territory, India stands well-positioned to over-deliver on its promises and lead the way toward a resilient, green economy.

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