

CLIMATE AS CAPABILITY: India's Emerging Climate Strategy



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CLIMATE POLICY is rapidly becoming a question of economic strategy rather than environmental ambition. Carbon border taxes, critical mineral competition and the rising cost of clean energy technologies are reshaping the rules of global growth. In this emerging landscape, climate action is no longer judged only by emissions targets but by whether economies can build the industrial capabilities required to decarbonise while remaining competitive. India's climate approach is gradually evolving in this direction. The challenge is no longer framed simply as reducing emissions, but as doing so while sustaining industrial expansion, protecting export competitiveness and maintaining affordable energy access. Increasingly, climate policy is also becoming a question of where future productive capabilities will sit within the economy.

The transition is therefore not only about decarbonising existing activities but about shaping new technological and industrial capabilities around low-carbon production. Recent policy signals illustrate how this shift is beginning to take shape. Rather than presenting climate action as a standalone agenda, policy choices increasingly embed climate considerations within a broader strategy centred on energy security, industrial depth and supply-chain resilience. This reflects a wider transition in development thinking: climate policy is moving from a consumption-centred agenda toward a

production-centred one, where the focus lies on how economies build capabilities in clean technologies, materials and industrial processes.

One of the clearest signals of this shift lies in the growing focus on industrial decarbonisation. India's emissions trajectory will be determined less by household consumption and more by hard-to-abate sectors such as steel, cement, power and refining. According to the International Energy Agency, industry accounts for roughly 30 per cent of India's carbon dioxide emissions, while the power sector contributes around 40 per cent. Within this industrial base, steel and cement together account for close to one-fifth of total emissions. These sectors sit at the heart of the country's manufacturing ambitions, making their decarbonisation both an environmental necessity and an economic imperative.

Policy attention is therefore increasingly directed toward technologies that can lower emissions intensity without eroding industrial scale.

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tion and storage reflect an acknowledgement that India's transition cannot rely solely on electrification or rapid structural shifts away from heavy industry. Instead, the emerging strategy favours a gradual reduction in emissions intensity while preserving the productive capacity of sectors central to growth. This logic extends into a broader set of energy and manufacturing measures designed to lower transition costs.

Customs duty exemptions for capital goods used in battery energy storage systems, inputs such as sodium antimonate used in solar glass production, and continued support for nuclear energy infrastructure all point in the same direction: easing access to technologies that can expand low-carbon power without raising industrial input costs.

The supply-chain dimension of climate policy is increasingly significant. As the global clean-energy transition

accelerates, access to minerals such as lithium, cobalt and rare earth elements is becoming a strategic economic concern. The International Energy Agency estimates that demand for critical minerals used in clean technologies could increase nearly fourfold by 2040. For countries like India, the challenge is not only securing access but building capabilities in processing, materials science and downstream manufacturing so that more value is captured domestically. Climate considerations are also embedded in infrastructure strategy, where investments in waterways, coastal shipping and high-speed rail can reduce emissions intensity while improving logistics efficiency.

In several respects, this evolving approach reflects a pragmatic understanding of how climate action intersects with development priorities. It treats decarbonisation as inseparable from industri-

al policy, anchors the transition in energy security and affordability, and recognises that climate performance is increasingly shaping access to global markets. This is particularly relevant as mechanisms such as the European Union's Carbon Border Adjustment Mechanism begin to reshape trade conditions. Estimates suggest that roughly 27 per cent of India's exports to the European Union fall within sectors covered by the mechanism, including steel, aluminium and fertilisers, making industrial decarbonisation increasingly relevant to export competitiveness.

Yet this production-centred framing exposes an important limitation. While mitigation through industry and energy systems is receiving growing attention, climate adaptation remains comparatively under-articulated. For a country as climate-vulnerable as India, adaptation cannot remain secondary. Extreme heat,



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Photograph by Leonid Sorokin

floods, cyclones and water stress increasingly threaten livelihoods, infrastructure and productivity. Adaptation is therefore not merely social spending but economic risk management. The implications are already visible. The International Labour Organization estimates India could lose nearly six per cent of total working hours by 2030 due to heat stress. Estimates by the Swiss Re Institute further suggest climate change could reduce India's GDP by close to 10 per cent by mid-century.

This vulnerability is unevenly distributed. Subnational climate risk assessments conducted by the Institute for Competitiveness show that nearly one-third of India's states and Union Territories fall in the highest climate-risk category, while more than half are classified as high or medium-high risk. Crucially, exposure closely tracks economic capacity: the most vulnerable re-

gions also tend to have lower per-capita incomes and limited fiscal space to invest in resilience.

Despite this, fiscal frameworks and development planning remain only loosely aligned with differences in climate exposure. Adaptation investments are therefore fragmented across sectors and levels of government rather than integrated into a systemic resilience strategy. The risk is that climate shocks increasingly emerge as recurring sources of disruption rather than manageable risks within the broader growth trajectory.

India's evolving climate strategy therefore reflects an important shift in perspective. Climate policy is gradually being integrated into the pursuit of competitiveness, energy security and industrial capability. That is a defensible choice in a world where growth is increasingly shaped by carbon constraints

and supply-chain vulnerabilities.

Mitigation and adaptation, however, cannot be treated as sequential challenges. Each shapes the effectiveness of the other and both must advance together. Lowering the carbon content of what India produces is one task; protecting the country's capacity to keep producing in an increasingly volatile climate is another. The first requires technological upgrading and industrial capability. The second requires resilient infrastructure, stronger institutions and sustained investment in adaptive capacity. India's policy framework increasingly demonstrates an understanding of the first. The second will determine how resilient that growth ultimately proves to be. **BW**

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