

# India needs to build a 'climate-ready' state

As climate change has already affected what constitutes effective development, a growing, aspirational nation such as India needs to factor climate considerations into its vision of future development



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At first look, it is not entirely clear how a growing, increasingly assertive India approaching its 75th anniversary of Independence should engage the global problem of climate change. Climate change is undoubtedly a scientific reality. Heat waves in India and across the world, and a global backdrop of growing floods and violent weather events suggest climate change is a physical reality now, not just a future threat. Yet, India has done relatively little compared to the developed world to contribute to the build-up over the last 150 years of greenhouse gases that cause climate change. And India has pressing development challenges – including job creation and providing basic human development – that are historically linked with growing energy use. It is tempting to say, under these circumstances, that India should focus on development first, and worry about climate change later.

This would be a mistake. Climate change has already affected, and will continue to shape, what constitutes effective development. A growing, aspirational India needs to factor climate considerations into its vision of future development.

## Low carbon future is key

The energy economy, for example, is closely tied with a low-carbon future. India's competitiveness and scope for job creation will be affected by how well India anticipates and prepares for new technologies around battery storage, electric vehicles, and energy-efficient buildings. Moreover, development choices made now will affect the resilience of Indian agriculture to droughts, of India's cities to flooding and the economic prospects of India's poor who depend on forests and fisheries. Internalising climate implications into alternative development choices now is more effective rather than trying to reverse course later.

But the situation is more complex than simply pointing the economy in a new direction. The transition to a low-carbon and climate-resilient future may not be costless; it may cause trade-offs requiring redirection of investments away from immediate needs, requiring compensatory international financial

support. For example, how can India in the future pivot away from a coal economy without hampering the energy economy in the short and medium run? It may require strategic bets because not all low-carbon or climate-resilient options are automatically and immediately in India's interest. For example, which technologies best afford India competitive advantage and the prospect of creating jobs? While it is absolutely in India's enlightened self-interest to factor climate change into choices of its development future, it is also necessary to do so in a smart and strategic way.

## Multiple-sector coordination

This, in turn, places considerable stresses on Indian governance. The scale and scope of the climate problem, the need for coordination across multiple sectors, and the considerable uncertainties the future holds place a particular responsibility on governments to lead the way. The Indian state (and to be fair, this is true of most other states) is deeply under-equipped to deal with the complexities of development in a warming world. Looking ahead to the fourth quarter century after Independence, India needs to build a 'climate-ready' state in terms of both strategic ability and implementation capacity.

Integrating climate change into development requires a substantial advance in the capacity for generating knowledge and undertaking strategic action. This includes, for example, identifying where there are synergies between development and climate mitigation: building more efficient public transport reduces emissions while making for more liveable and low-pollution cities. But there may also be trade-offs: moving India's poor off biomass and toward clean gas for cooking may increase emissions, but this is necessary for a poor nation's development. Responsible policy making requires understanding synergies and trade-offs across multiple objectives – economic and social development, equality, energy security, local and global environment, and resilience – to inform policy.

But, it is not only immediate choices that are at stake. India has to make strategic bets about the future to meet



Solar panels on a building, in Vijayawada, Andhra Pradesh. • G.N. RAO

development needs under climate constraints. For example, might this be a moment to re-think the rice-wheat cropping system in favour of more resilient and less water-intensive crops? What are the cost implications of future climate-proofing, and what does this imply for India's requirements of global financial support? What is needed are informed decisions about India's choice of development pathway, and its fitness for climate futures. A dedicated, and ideally independent, low-carbon development commission would be a good start, but it must be one that can tap into research, academic, business and civil society institutions in a systematic way.

## Industrial policy

An important future arena for strategic capacity is the design and execution of green industrial policy: anticipating areas of competitive advantage for India; supporting relevant technology futures; and ensuring a supportive implementation environment. For example, recent policy announcements suggest the Indian government is seeking to play a steering role in areas such as electric vehicles and battery technology. However, the history of industrial policy

is a cautionary tale. Governments are just as vulnerable to capture by industries they seek to work closely with, with detrimental effects on Indian competitiveness, and hence job creation. Doing industrial policy well requires the right balance between being 'embedded' within industry in order to know what is required, and having sufficient 'autonomy' to avoid being captured.

Strategic thinking also extends to the need for broadening the scope of diplomacy. The existing lines of Indian climate diplomacy remain important: keeping the pressure on the rich world for mitigation action and associated demands for finance. But so, too, does anticipating new challenges: planning for the prospects of a climate tax at national borders; growing formation of carbon clubs and technology partnerships; and the intertwining of energy security and climate diplomacy. The responses to these new challenges must be based on a clear-headed understanding of India's development interests in a warming world.

## Implementation capabilities

A climate-ready state needs to have far stronger implementation capabilities. This, in turn, requires horizontal and

vertical coordination, and the ability to link between domestic and global debates. In a climate-ready future, existing silos across sectors will need to be dissolved. Energy systems, transport systems, urban planning and building design will, for example, have to work together to maximise the potential for new renewable energy-based transport and urban systems. Mechanisms to channel strategic knowledge and forge coordination across currently disparate ministries are required.

There is an important additional point here: while the Environment Ministry must continue to play a central role, climate change as a development challenge requires abilities and powers beyond those of an environment ministry. An all-of-government response requires a broad perspective and coordination ability that lie above a single ministry. Yet, because it must be steeped in knowledge, deliberation and circumstances on the ground, simply assigning the task to a powerful but rarefied Prime Minister's Office may be sub-optimal. An open and dynamic inter-ministerial coordination structure is required.

## Cooperative federalism

Equally, if not more, important is vertical coordination between the Centre and States. Sectors vulnerable to climate impacts, from water to agriculture to urban development, are in the hands of States. States have shown they can usefully experiment with solutions and tailor policies to local context. Yet, States also require knowledge of public goods in terms of relevant climate science, support for coordination across States facing similar issues, and access to finance. Climate change redoubles the need for functioning cooperative federalism and making creative use of existing bodies such as the Finance Commission.

A warming world is also one that is more complex for a nation such as India seeking rapid development and better lives and livelihoods for its citizens. India cannot put development on hold for climate change. But to realise our aspirations, we must also realise that the nature of the development challenge has itself changed, and build a state capable of rising to this challenge.



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