Avoiding Airpocalypse: It's Time to Move Beyond Quick Fixes and Tackle the Root Cause of Crisis

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The fixation on economic growth indicators has blinded our decision-makers to the enormous social and ecological damage being caused by such growth.

People exercise in a park on a smoggy morning in New Delhi on November 9, 2017. (Photo: Reuters/Saumya Khandelwal)

With multiple alarm bells ringing over Delhi's horrendous air pollution situation, it is time to go beyond quick fixes and convenient solutions that have been attempted time and again, with no effect. CNG or other clean fuels, phasing out old vehicles, requiring the latest Euro standards from automobile makers, shifting industries out: these and other technological and managerial solutions have not or will not yield anything more than temporary relief, if even that.

To get to any meaningful solution, one needs to look at root causes of a situation all Indian cities are facing or will face in the near future. The immediate causes of the 'airpocalypse' (an apt term coined by Greenpeace India) in Delhi are its burgeoning vehicular population, construction dust, smoke from the burning of crop residues in nearby states, dust from Rajasthan's desert, and thermal power stations.

Some of these are common to most Indian cities. But these are symptoms of something deeper - a short-sighted approach to development. In particular, the fixation on economic growth indicators has blinded our decision-makers to the enormous social and ecological damage being caused by such growth. An unregulated hunger for profits and material gains, and the pursuit of political power through ugly electoral competitiveness, are willing accomplices to these approaches. Take the explosion of vehicles in all our cities. A host of financial and fiscal policies in the era of economic globalization since 1991 have given an enormous boost to the automobile industry, both through domestic production and import. All of our cities have been increasingly designed to accommodate the private automobiles, converting even those like Pune that were eminently bicycle friendly into a choking maze of roads, flyovers, and parking lots.

Trying to solve this by mandating cleaner fuels is short-sighted, as Delhi's CNG experiment has shown. What is needed is a fundamental rethinking of human mobility patterns in cities. An overarching focus on public transportation, cycling and walking, as for instance is now becoming common in some European cities, has to become top priority.

Pune is currently designing an ambitious plan for cycling, which other cities can learn from; noting of course that even if it turns out to be superbly done, its implementation will require enormous public support. Additionally, urban design that minimizes the work-home commute has to be brought in, saving hours of productive time and reducing fuel use and pollution. The private automobile industry will scream and shout, but their profits are surely less important than public health. Note that better public transportation is also essential to build support for partial solutions like Delhi's odd-even experiment.

Then there is the construction boom in cities, a major source of dust, some of it pretty deadly (as evident from the enormous health cost paid by workers who toil to make our buildings). The mindboggling profits that the construction industry (and its supporters in government) make is a major cause for this boom, with increasing demand being a convenient excuse. The problem is not only the scale of the activity, but also the materials and technologies used.

Cement-concrete have dominated the sector, with very little attention to alternatives; techniques of construction have paid little attention to dust-control mechanisms; and where norms exist, they are easily flouted due to an extremely lax regulatory system. Solution? Much greater support to alternative materials and technologies is one, including mud and bamboo (decent, multi-story buildings of these exist in many cities). Dust-control methods are another. But a more fundamental issue is that of controlling the real estate and construction industry, which is a political minefield.

Another basic issue is the sheer number of new people requiring housing and offices, caused largely by the influx of people from villages into cities. Our development patterns and investment are heavily skewed towards cities, with villages being deprived of basic facilities; worse, they are looted for water, minerals, and other resources that flow into cities, which gift them back with garbage and sewage.

With severe crises of livelihoods, the destruction of the natural resource base, and exploitation and injustices of various kinds (casteism being a prominent one), distress migration towards cities and industrial zones is significant. Bucking this trend are a number of villages that have reduced or eliminated outmigration, by vitalizing the local economy and tackling social injustice, which suggests that there is nothing inevitable about rural-urban migration. The only way to stem the completely unsustainable growth of urban populations is to incentivize rural life through secure livelihoods, good facilities for basic needs including health and learning, robust communications, and movements for justice.

The current crisis in Delhi is reportedly also caused by burning of crop residues in Punjab and Haryana. The respective Chief Ministers and the Union Minister for Environment are blaming each other for lack of resources to pay the farmers to not indulge in this. Again, such a managerial approach ignores the root of the crisis, which lies in the Green Revolution model of agricultural development.

This model has severely degraded soils, eroded the diversity of seeds and farming knowledge, and turned farming (agriculture) into a purely commercial activity (agronomy). Farmers are finding it harder and harder to stay afloat, given increasing costs of chemicals and other inputs, and poor market prices for their crops. So they have abandoned the old techniques of letting land fallow for part of the year, the crop residue left to rot and put nutrients back into the soil; or left manual cropping that cuts close to the ground and turned to threshers which leave a lot of straw standing. Farmers simply burn the residue and immediately put the land back into cropping.

Solution? A major shift to organic, biologically diverse farming, better market renumeration for crops, helping farmers process agricultural produce and directly sell to consumers, and so on. Meanwhile, some new technologies of harvesting and spreading the crop residue on the fields have also been introduced. Plenty of examples in India show the feasibility of these approaches; but again, are decision-makers listening?

There is finally the issue of dust from Rajasthan (in Delhi's case). Economic development has entailed a massive attack on the Aravalli forests, which have been a buffer between the desert and Delhi. Degradation of natural forests across India results in not only declining buffers against dust, but also less pollution absorption. Solution? Stop sacrificing forests for mining, urbanization, industry, commercial agriculture, and the like!

One final point is important. Air pollution affects everyone, but it affects the poor (and amongst them women and children) more. This is in four ways: they often live in more polluted areas, they have less access to privatized conveniences (including for instance the automobile), they are more vulnerable to the ill-effects of pollution due to a lower immunity, and they are less able to afford treatment. Amongst them, workers in industries, construction, traffic management and similar jobs are the most susceptible. Any solutions to the airpocalypse needs to prioritise the situation of the poor; and again, transforming a model of development that is overwhelmingly oriented to the rich has to be part of this.

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