

# Still up in the air

The odd-even programme is no long-term solution to pollution. It can only be the beginning of the search for one



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THE ODD-EVEN experiment in January was the testing of a short-term managerial solution. As any experiment, it gave partial insights into the air pollution puzzle. It was also a test of Delhiites' resolve to do something about it. The first trial did reduce congestion. The second experiment from April 15 to 30 had little impact on congestion during peak hours. Apparently, people had obtained more cars, used more taxis and some had changed over to CNG. Reduction in congestion, even though air pollution remains at the same level, reduces people's exposure which is the product of air pollution level x number of persons exposed x duration of exposure. Lower exposure lowers the adverse health impact.

It is not easy to assess the impact of odd-even on pollution levels as one also needs to factor in changes in wind speed, wind direction, emissions by neighbouring areas, fires, etc. From that point of view, one cannot assess the second odd-even experiment. It might still be considered worthwhile as it showed that people will take defensive action and that this may not be the solution to Delhi's pollution problem.

Cleaning up Delhi's air requires both short-term and long-term solutions. Typically, the control of a number of short-term solutions lies with the Delhi government, while long-term solutions require the Central government to act.

Odd-even cannot be a long-term solution for the NCR as the number of vehicles in Delhi alone, not counting the NCR region, is increasing at nearly 6 lakhs per year in Delhi alone, of which some 35 per cent are cars. Odd-even may have taken out at most 30 per cent of the cars of Delhi's 28 lakh cars as cars on the road keep increasing and within a couple of years, even with odd-even, the cars on the road would increase. To reduce pollution, we need cleaner cars and much greater use of public transport, walking, cycling and improvement in the quality of public transport. The solution lies in a more comprehensive transport strategy and dealing with other sources of pollution. It requires actions not just by Delhi government, but

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As we did for transport, the suggestions below also require two-week experiments specially devoted to them. For example, this is the season for trees to shed leaves and all RWAs should be mandated to compost them and find place for the compost on their premises. Dry leaves also create dust pollution. Biomass burning of any kind should have strict penalties which require alert monitoring as well as alternatives and solutions. Those who burn biomass for cooking should be provided LPG as is the policy of the government. However, some obstacles to full adoption of LPG need to be removed. Burning of biomass for heat in winter is fortunately not an issue for the next eight months. In winter months, the watchmen who burn biomass for heating should be provided alternative heating by their employers.

The Delhi government has already started to vacuum clean roads and has a plan to cover all roads under its jurisdiction within three months. Also, it proposes to green the shoulders of roads. These measures should reduce road dust. However, on our way to office, we find heaps of soil piled up from digging. We monitor grams of pollution from cars but tonnes of soil is sitting along the same road. Strict control over such road digging and restoration after the work is completed is also necessary.

Construction firms should be asked to

keep the dust confined within the site, which should be covered up, inner roads where trucks ply should be regularly watered and the PM level should be monitored at the site and a few meters outside it.

We need to create a detailed data base of vehicles plying in the city. The vehicle registry should have, besides the make, horsepower and type of fuel used, the year of make, and Bharat stage compliance as well as the stated fuel efficiency of the vehicle. With these data one can assess the impact of banning 15-year-old cars, or diesel vehicles, or converting vehicles to CNG, etc. More incentives and disincentives need to be given to change the vehicle profile gradually by de-registering high-polluting old vehicles and encouraging CNG and electric vehicles.

Much of the long-term solutions are with the Central government, which can mandate the oil and auto companies to get Bharat 6 in Delhi earlier. Bharat II was introduced in four metros in 2001, was extended to 13 cities in 2003 and was made nationwide in 2005. Similarly, Bharat III and Bharat IV were also introduced in stages. So Bharat VI should be introduced earlier in selected cities. Bharat VI has to start somewhere — city by city and also refinery by refinery. The Centre can insist that the new refinery would have to produce only Bharat VI fuels. Delhi should not register vehicles that do not comply with Bharat VI after a given date, say April 1, 2018. If need be, facilitate import of Bharat VI vehicles. The existing refineries also need to be told to submit their time-bound plans for gradual conversion. These plans need to be monitored strictly so that no slippages occur.

In the light of growing vehicle ownership in Delhi, we need Bharat VI or electric vehicles, good public transport, footpaths and cycle tracks and appropriate congestion and parking charges as well as enforcement of measures to reduce dust, the banning of biomass burning, better traffic management and driving discipline.

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