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# EDITORIAL PAGE

## WORDLY WISE

I COULDN'T HELP NOTICING HOW ALL THE BEST  
MARXIST ANALYSES ARE ALWAYS ANALYSES  
OF A FAILURE. — SLAVOJ ZIZEK

# Delhi can

We know how to deal with pollution.  
Time, now, to do it



JYOTI PARIKH AND KIRIT PARIKH

DELHI HAS BECOME the most air polluted city in the world. Urgent and effective actions are needed to bring the pollution level down. The cost to the health of Delhi citizens far exceeds any cost that some may have to bear to reduce it. Cleaning up Delhi's air will require technical, managerial and organisational efforts and will take time. Still, steps should be taken to provide some immediate relief. The odd-even policy is a good beginning. While the reduction in total emissions may be small, the marginal impact on health would not be negligible as the impact on health increases non-linearly with the level of pollution. This needs to be followed up with a comprehensive strategy.

The sources of air pollution in Delhi are many: About three million trucks and cars, particularly diesel-driven, and five million two-wheelers, tens of thousands of trucks many of which just go through for want of a bypass, road dust, burning of biomass, industry and power plants, construction dust and in October-November, burning of paddy stubbles in Haryana and Punjab. The relative contribution of these vary from season to season and for pollutant to pollutant. For example, the contribution of transport to PM 2.5 (particulate matter of size less than 2.5 microns) is estimated to vary from 25 to 60 per cent.

How do we deal with all the sources of pollution and clean up Delhi's air in reasonable time? The measures are well-known, but we indicate how to implement them effectively.

Car-use on alternate days is a measure that can be immediately implemented. How much impact it will make is difficult to estimate as a number of exemptions have been given. But surely, it will have some immediate impact. Over time, people may buy another cheaper, and more polluting, car. But that will take time. Meanwhile, if public transport is improved, more people might get accustomed to using it or get into the habit of sharing cars.

Questions are raised about the implementation of the odd-even policy. This is not difficult to implement. Install cameras at ma-

How much impact on air quality can the odd-even policy have? In 2001, when Delhi buses and taxis moved to CNG, we saw significant improvement in air quality. The odd-even numbered car policy should produce a visible impact. However, this experiment should be over a longer period than 15 days. Also, intensive measuring of air quality in different parts of the city should be done even after the 15-day experiment is over. Loopholes in the policy should be removed. Two-wheelers should also be included once the number of buses in Delhi is increased.

for junctions and fine those who violate it based on the visuals. The fines may increase steeply with repeated violations. Alternatively, select a few locations every day on a random basis and impose very large fines on violators. For example, in Vienna, tickets on public transport are not checked. But once in a blue moon, there is checking and the fine imposed is equal to more than one year's free rides.

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Of course, loopholes in the policy should be removed. Two-wheelers should also be included once the number of buses in Delhi is increased, which should be done in a few months at most.

Building a bypass had been pending for years, although the work has now begun. It will take a year or two to be completed. Meanwhile, restricting the entry of trucks to the city for late night hours can give some relief. The measure to restrict entry till 11pm is a good one. As the trucks will move faster, it should reduce emissions. This would have some immediate impact.

To promote walking and cycling, the city requires footpaths and cycle paths. Footpaths must be levelled and should not require getting off and on at every gate: Cars should go up and down, not people. Footpaths should not be encroached upon by hawkers who may be provided alternate space. If constructing footpaths and cycle tracks requires that one car lane has to be reduced, that should be done. All citizens should have equal rights to road space. This may take a year or two. The work must start soon.

Implementing Euro 6 norms should not wait. While refineries will have to make sub-

stantial investments to produce clean fuels, it is unavoidable and should not be postponed. In any case, it will increase the price of diesel by about one rupee per litre. Surely, this can be borne by diesel-vehicle users. Also, instead of a one-time tax on diesel vehicles, the difference between diesel and petrol prices should be narrowed and an annual tax on diesel vehicles should be imposed. Euro 6 does not have to be implemented all at once for the whole country. One can begin with metros and larger cities. This may not be 100 per cent effective, but largely so.

Automobile manufacturers should be required to produce Euro 6-compliant vehicles no later than 2018. From January 1, 2018, registration and sale should be banned of vehicles not meeting Euro 6 norms. Import of Euro 6 vehicles with a certain fuel efficiency norm should be encouraged to provide incentives to domestic manufacturers.

For controlling road dust, vacuum cleaning of roads can be done. This can be accomplished within three to six months.

Paddy stubble burning in Punjab and Haryana is attractive to farmers as it takes less labour, controls pests and is quick. However, the paddy loses nutrients. A better way would be to remove the stubble and burn it with little or no oxygen to produce bio-char, which is then applied to the land. This is practised in the Philippines. Biochar improves the fertility of the soil and reduces carbon dioxide emissions when compared to burning. However, it requires more labour. A mechanism can be developed whereby farmers are compensated for the extra labour through carbon certificates. For example, a private firm can finance farmers to produce biochar and get carbon certificates.

Thus Delhi can have clean air within two years if all the measures suggested here are implemented. The Aam Aadmi Party's strategy is a good one for some immediate relief. However, it must initiate action on all the other measures now.

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