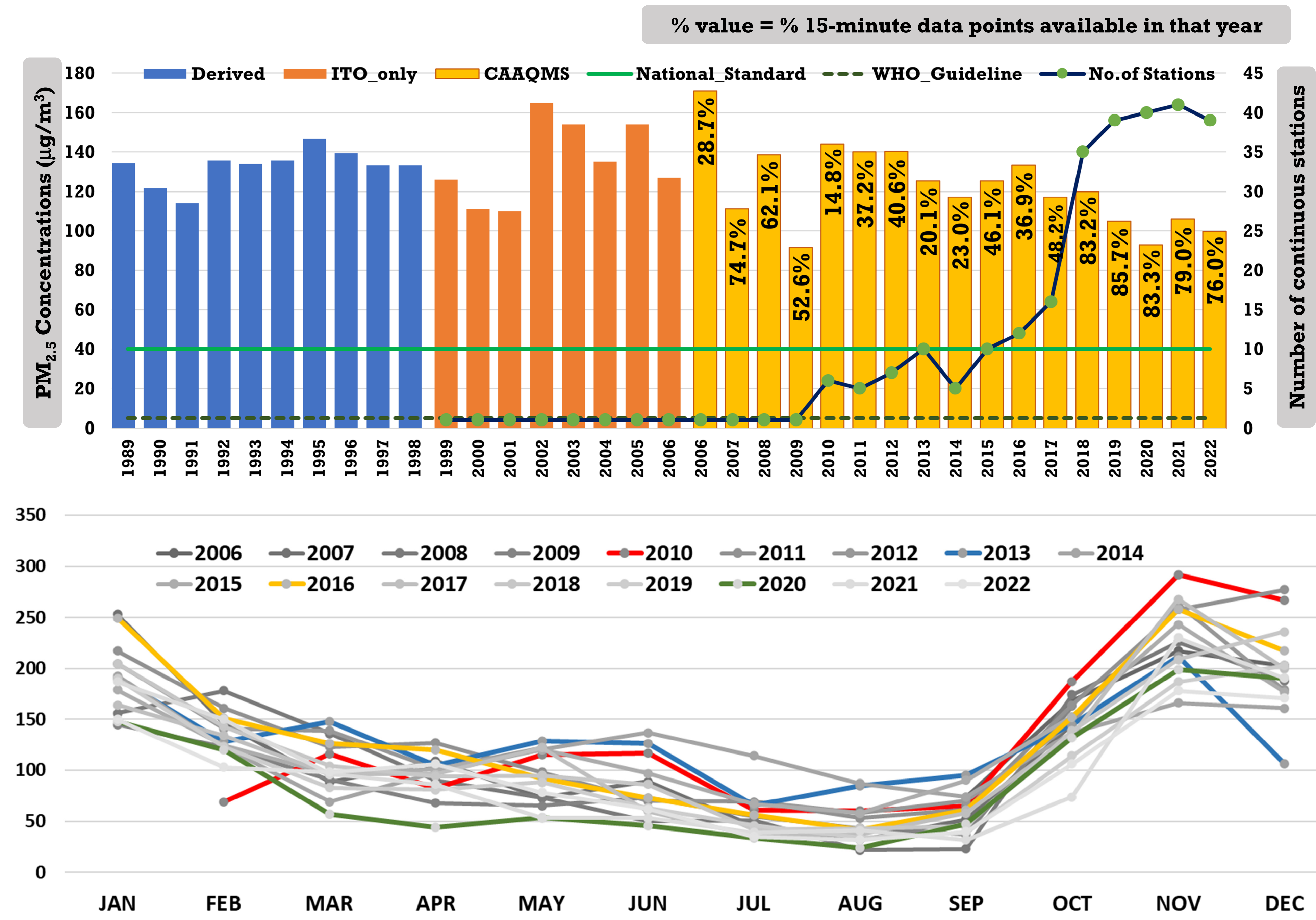
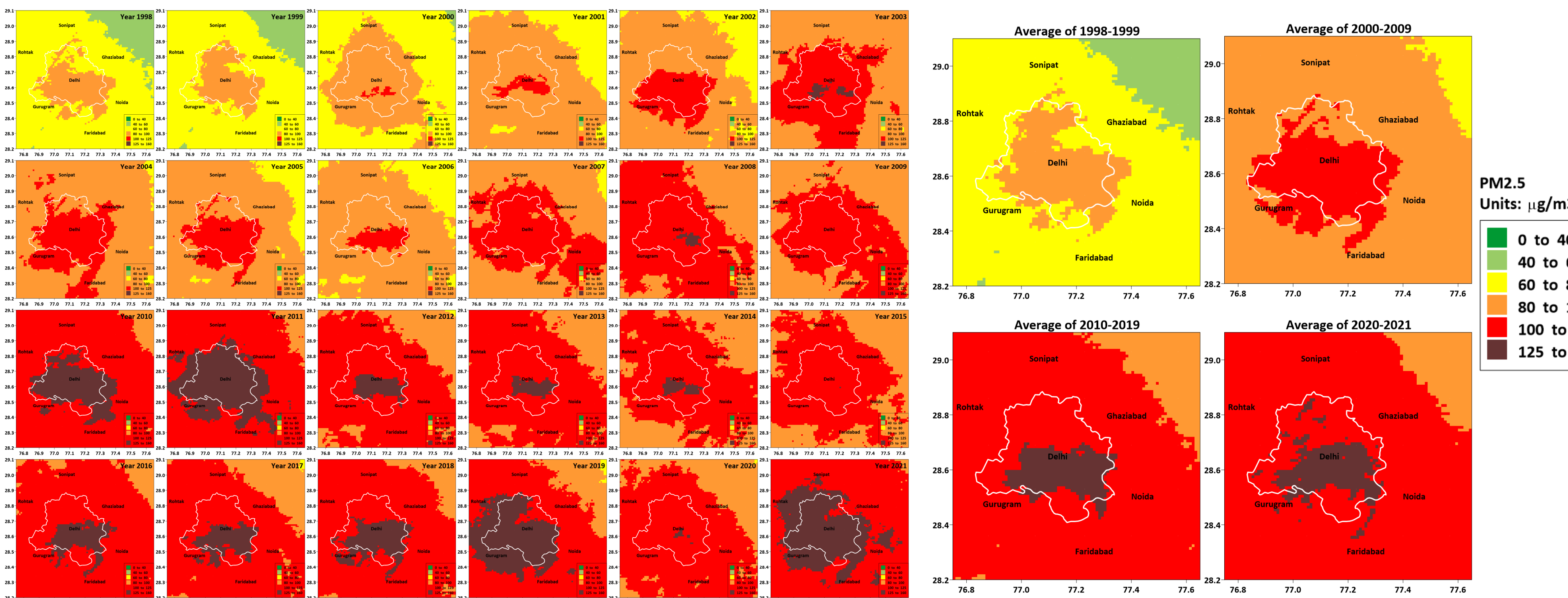


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1989 to 1998 data is converted from PM₁₀ concentrations from manual stations. Number of continuous stations measuring PM_{2.5} in Delhi increased from 1 in 1999 to 2006 to 41 in 2021. Within 100km of NCR Delhi there are 70+ stations. Data availability every 15-min in 2019 is 85% -- more than double the average of 2013-17. Post-2018, data availability has been consistently above 75%.
Post-2018, noticeable drop in the annual averages, could be because of the change in activity/consumption patterns and/or due to mathematical averaging of increased spatial coverage and availability of the monitoring data.

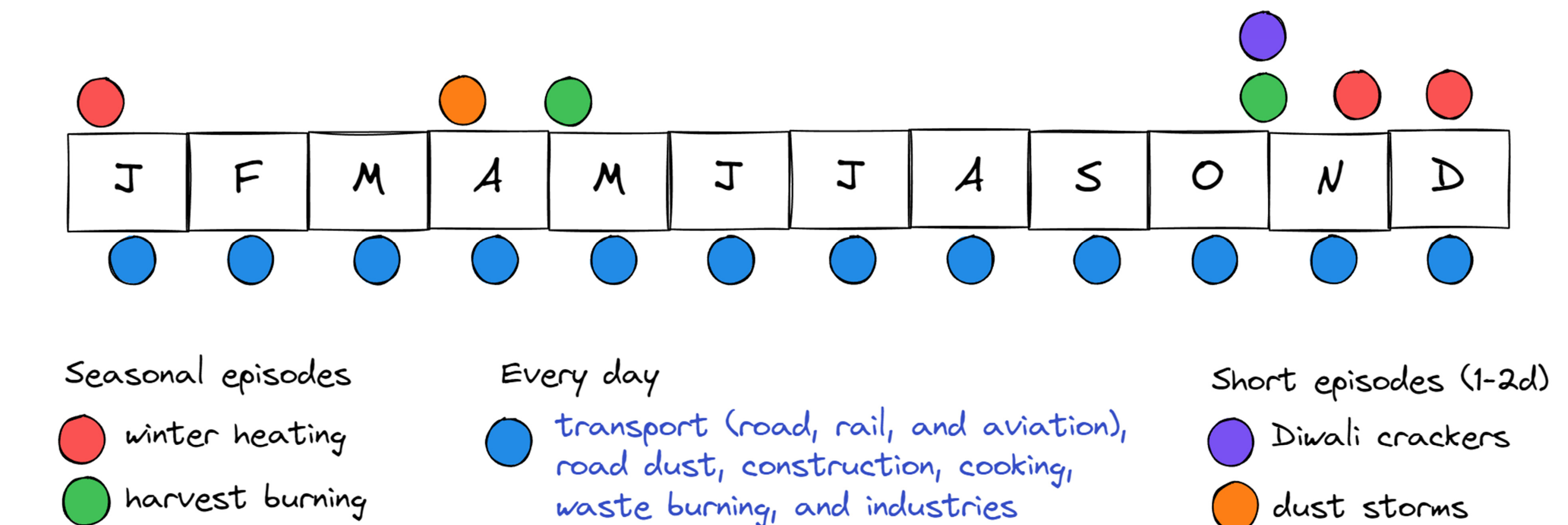
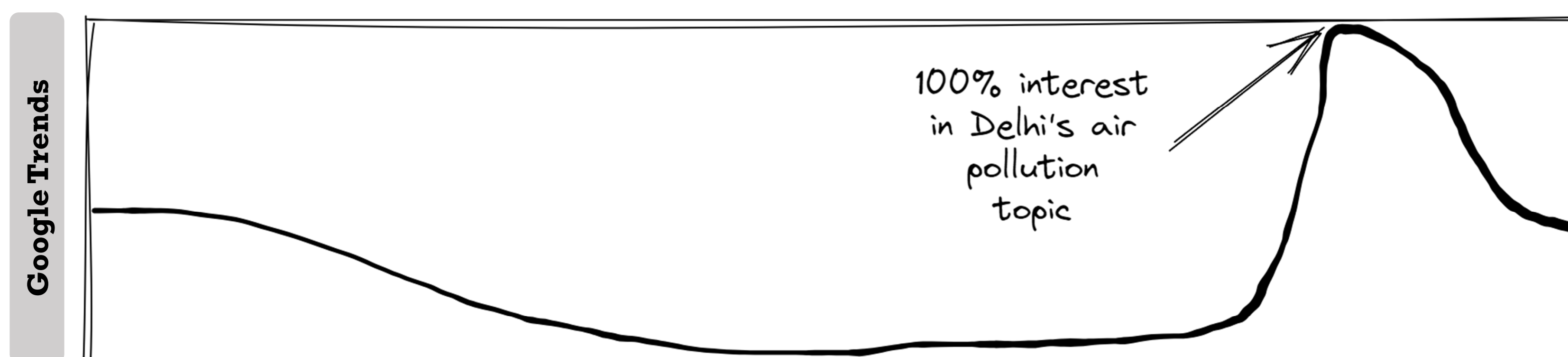


Decadal changes in annual PM_{2.5} concentrations based on data extracted from reanalysis fields published by WUSTL

Summary of source apportionment studies for annual PM_{2.5}

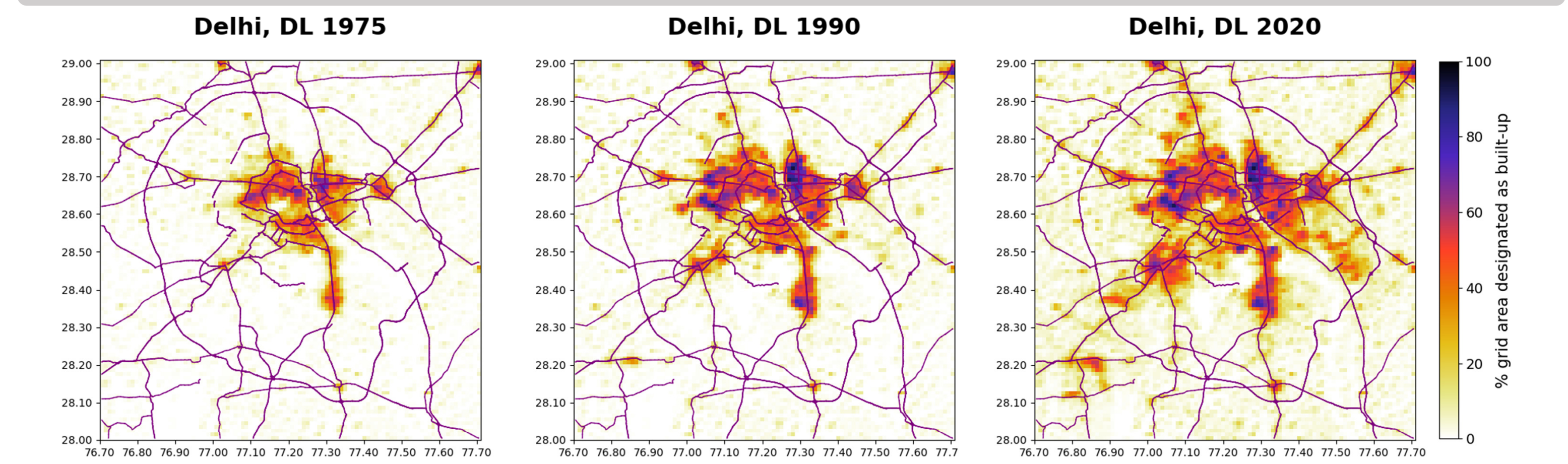
- All transport 10-30%**: This includes all road, rail, and aviation modes and combustion of petrol, diesel, and gas.
- All dust 10-30%**: This includes dust from resuspension on the roads and construction activities.
- All industries 10-30%**: This includes all small, medium, and large industries, including power plants and brick kilns.
- All Residential <10% in summer <30% in winter**: This includes all cooking, lighting, and heating activities.
- Waste burning 5-15%**: This includes all open waste burning at kerb and residential sides, and at the landfills.
- Power plants <7%**: This is mostly from power plants outside the city limits.
- Dust storms <5%**: This is a seasonal source.
- Agricultural residue burning <3%**: This is a seasonal source.
- Firecrackers <1%**: This is a seasonal source.

Earliest reported source apportionment results are from the 1997 White Paper on Delhi's air pollution by the Central Pollution Control Board. The latest results in this pool are from 2023 real time setup by the Delhi Pollution Control Committee on their premises. Majority of the results follow the filter sampling, chemical analysis, and receptor modeling method.

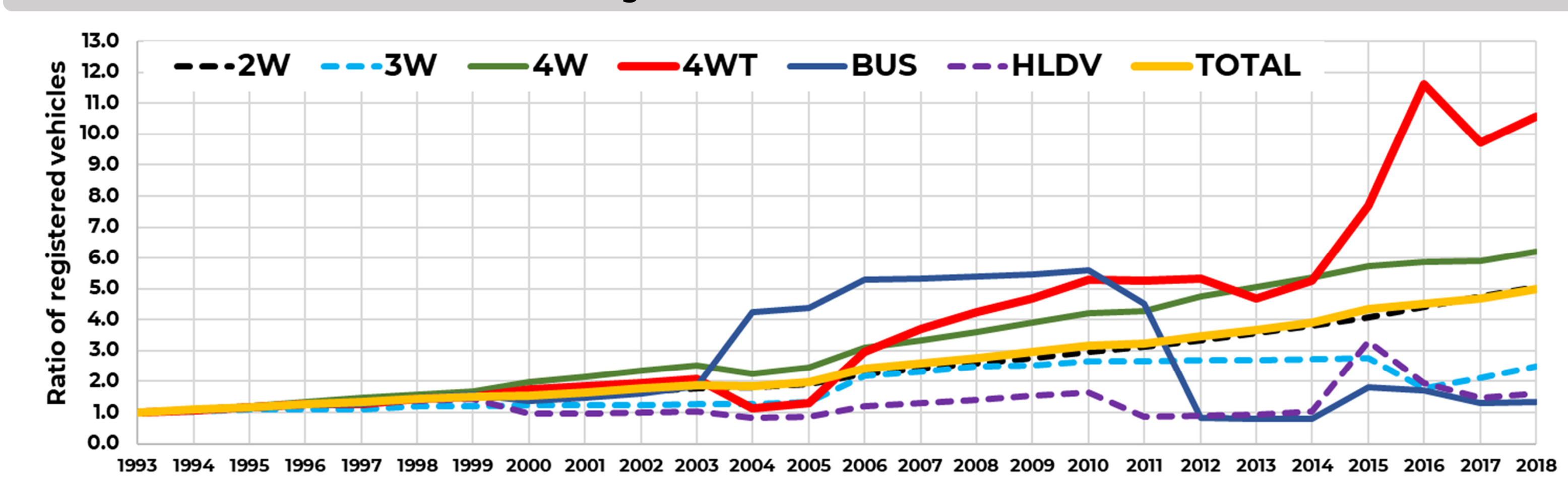


Delhi's air pollution peaks during the winter months and is the lowest during the monsoon months, but not negligible. This cyclical nature also overlaps with the overall interest in the topic of air pollution and efforts to address the issue, peaking at the start of the Diwali and agricultural-waste burning episodes – evident in media coverage (based on the number of articles published), public interest (based on social media activity and google search trends), and political will (based on the number of political statements made).

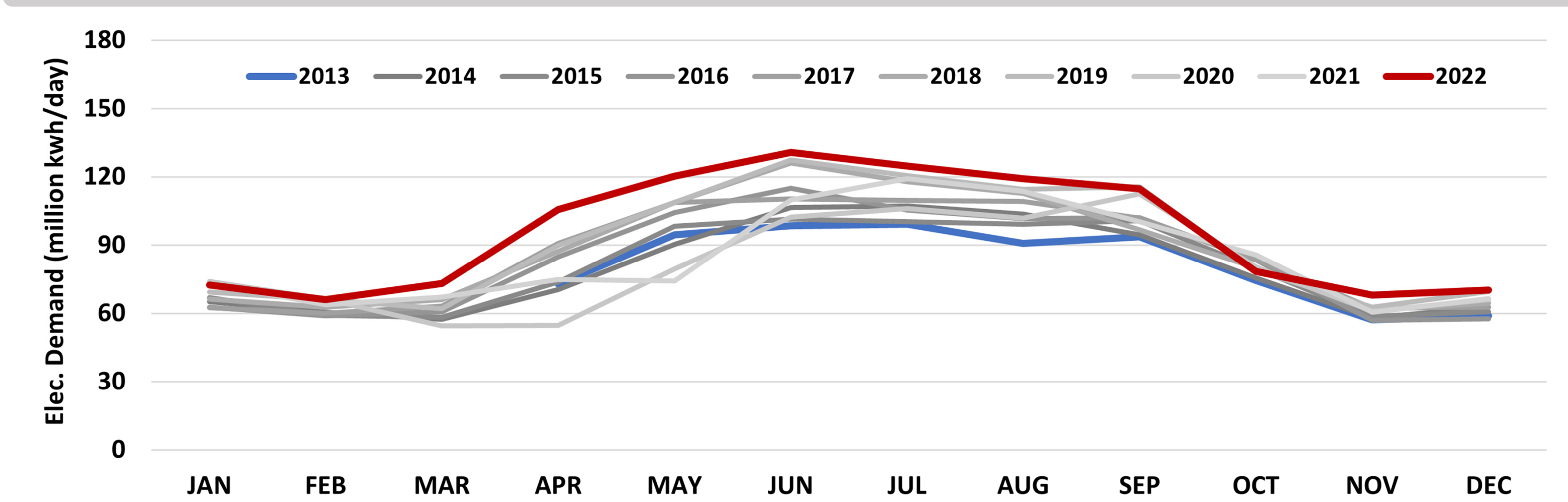
Change in urban built-up area



Growth in registered vehicles as a ratio to 1993



Monthly electricity demand 2013-2022



India NCAP Delhi's action items summary (2019)

All transport modes 53%	All industry, including power 24%	Waste management 2%	Household cooking 3%
Road dust management 2%	Construction debris management 2%	Ambient monitoring & public awareness 5%	Others 8%
Institutional 89%	Physical 10%	Economic 1%	

Judiciary interventions

- CNG
- Fireworks ban
- BS6 leapfrogging
- Petcoke ban
- LPG promotion
- NGT
- EPCA
- GRAP
- NCAP
- CAQM-XVFC
- Smog towers

