

# Fixing Delhi's Pollution 2020

version: 4<sup>th</sup> November, 2020

## Indicus Foundation

### Index

- CG – Central Government and its arms. Includes the CPCB.  
 SG – State Governments and all their arms. Includes SPCBs and in Delhi's case DPCC  
 MG – Municipal Government

Key Pollution Sources	Immediate (This year) [1]	Medium Term (Within 2-3 years) [2]	Longer term (In 3-5 years) [3]	Avoidable [4]
<b>A. Crop Residue Burning</b>	<p>a) Include paddy straw collection in NREGA works. <b>(SG+ CG)</b></p> <p>b) Identify and encourage planting varieties of seeds and crops that can be delayed for the winter/Rabi season, this will give larger window for farmers to avoid burning paddy straw <b>(SG + CG)</b></p>	<p>a) Facilitate other uses for paddy straw eg. by mandating or encouraging and providing financial support for use in coal power plants, paper and board units, etc. <b>(CG + SG)</b></p> <p>b) States to set much steeper crop diversification targets and start working immediately on high MSP for nutrient dense jowar, ragi millets and start building market through govt agencies (involve FCI, Khadi and agri-marketing, APEDA etc.) <b>(SG + CG)</b></p>	<p>a) Reduce and finally eliminate support for paddy and wheat so other crops become attractive alternatives especially in Punjab &amp; Haryana for maize, millets and other less-water using crops <b>(SG + CG)</b></p> <p>b) Reduce and eliminate harmful subsidies for electricity for agriculture <b>(SG + CG)</b></p>	<p>Banning and punishing farmers without providing feasible alternatives for poorer farmers. <b>(SG)</b></p>
<b>B. Transport Sector Emissions</b>	<p>a) Ensure PUC compliance for all 2 and 4 wheelers - enforce strongly <b>(SG)</b></p> <p>b) Put in independent third-party monitoring mechanism to ensure PUC compliance <b>(SG)</b></p> <p>c) Make use of private vehicles much costlier through pollution cess</p>	<p>a) Complete coverage of battery swapping mechanism and charging points for EVs with enhanced subsidies. Dedicated EV lanes in major roads. <b>(SG)</b></p> <p>c) NGT order on retrofitting carbon-cutters on diesel gensets to be extended to old vehicles -</p>	<p>a) All new neighborhoods to be planned on car-free and public transport concepts. <b>(CG + SG + MG)</b></p> <p>b) Policy to convert all older neighborhoods on above concepts <b>(CG + SG + MG)</b></p> <p>c) Public transport available for &gt;90</p>	<p>a) Building more roads, flyovers etc for addressing transport emission problem <b>(SG + CG)</b></p>

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	<p>on vehicles and fuel, also expensive parking <b>(CG + SG + MG)</b></p> <p>d) All of Delhi to have dedicated cycle lanes <b>(SG + MG)</b></p> <p>e) Improve overground bus mobility with reliable and timely bus service with existing buses - digitize and have a firm bus timetable with routes and maps on ALL bus-stops <b>(SG)</b></p> <p>f) Pollution display monitor on every bus-stop with PM data from the nearest CAMS <b>(SG)</b></p>	<p>certification for this to be clarified <b>(SG + CG)</b></p> <p>d) Charge fees for parking within neighborhoods, contracted out to RWAs or private parties <b>(MG)</b></p> <p>e) Increase number of buses with more electric buses in mix and gradual EV infrastructure buildup. <b>(SG)</b></p> <p>f) Integrating all of overground transport with metro service. <b>(SG)</b></p>	<p>percent of city's travel needs in 5 years <b>(SG)</b></p> <p>d) Phase out the most polluting vehicles (non BSIV vehicles and HDV's) through targeted programs <b>(CG+ SG)</b></p> <p>e) Long term and infrastructure plan for increasing usage of railways for freight movement <b>(CG)</b></p> <p>e) More Electric Buses until the fleet reaches 15,000. Focus on improving timely, reliable service - buses should run like metros <b>(SG)</b></p>	
<b>C. Coal power plants</b>	<p>a) Stop operations of all coal power plants to the west, north and northwest of Delhi for the October-February period. <b>(CG)</b></p> <p>b) First priority of all power purchase to be from non-coal power plants, second from coal power plants that fully meet emission norms. No purchase from those that don't. <b>(CG + SG)</b></p>	<p>a) Install emission control equipment in all coal power plants and shut down or impose heavy pollution cess until installed <b>(CG)</b></p> <p>b) improve emission norms and plan for installing them universally <b>(CG)</b></p> <p>c) Develop and implement a comprehensive mechanism for fly ash management <b>(CG)</b></p>	<p>a) Develop a plan with 20-year horizon for completely eliminating coal power from India. <b>(CG)</b></p>	<p>Investment in new coal power plants or capacity expansion <b>(CG)</b></p>

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<b>D. Industrial units</b>	<p>a) Real time electronic - monitoring implemented on all visibly polluting industrial units in NCR, Punjab and Haryana, all such data in public domain including the Continuous Emission Monitoring Systems (OCEMS) data <b>(SG + CG)</b></p> <p>b) Third party surprise monitoring visits on all above units <b>(SG)</b></p> <p>c) Improved enforcement with no laxity for all above violators <b>(SG)</b></p>	<p>a) Improved (more stringent) emission norms implemented in all units <b>(SG + CG)</b></p> <p>b) Facilitate shifting of all polluting units from Delhi NCR and surrounding areas eg. Brick kilns <b>(SG)</b></p> <p>c) Zig Zag and other improved technology for brick kilns to be completed <b>(SG)</b></p>	<p>a) No new polluting units in vicinity of Delhi NCR and also Punjab and Haryana <b>(SG + CG)</b></p> <p>b) Comprehensive national strategy for using cleaner fuels for industrial uses <b>(CG)</b></p>	<p>a) Laxity in enforcement due to 'economic' slowdown imperatives <b>(SG + CG)</b></p> <p>b) Relaxation in enforcing closure of polluting units in peak season <b>(SG)</b></p>
<b>E. Road (dust)</b>	<p>a) Resurface all broken/cracked roads <b>(SG + MG)</b></p> <p>b) Prioritize roadworks and finish all unfinished construction on priority. No new clearances to dig between Nov-Feb <b>(SG + MG)</b></p>	<p>a) All urban and rural roads to be surfaced in NCR <b>(SG + MG)</b></p> <p>b) examine new resurfacing technologies - asphalt creates pollution in hot weather <b>(SG)</b></p>		<p>Large scale and regular vacuuming or washing of roads <b>(MG)</b></p>
<b>F. Construction + Infrastructure + Digging sites</b>	<p>a) On site challans on each construction site that is not covering or spraying water on a daily basis <b>(MG + SG)</b></p> <p>b) Implementation of real time ambient monitoring using verified low-cost</p>	<p>a) A construction license regime where pollution cess imposed on all public or private construction <b>(SG)</b></p> <p>b) Enhance infrastructure and capacities of local/state</p>	<p>a) Develop and start implementation of plan to use only green construction methods and also off-site construction across NCR <b>(SG)</b></p>	<p>Heavy construction during peak pollution season <b>(SG)</b></p>

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	monitors of all construction sites, geo-tagged and made publicly accessible <b>(SG)</b>	governments and DPCC to implement Construction and Demolition Rules <b>(SG)</b>  c) Subsidize pre-fab construction, (where mixing and building is done off-site) to reduce urban exposure. <b>(CG + SG)</b>		
<b>G. Solid Waste Management</b>	<p>a) Ban on all garbage burning and enforce it well <b>(MG + SG)</b></p> <p>b) Set in place a comprehensive citizen monitoring and reporting initiative (Hot Spot Monitoring App +War room) <b>(SG + MG)</b></p> <p>c) Facilitate RWAs for decentralized composting by providing them with basic capital cost for pit composting and 3 months initial running costs. <b>(SG + MG)</b></p> <p>d) Delhi Govt to buy compost made from waste by RWAs or micro-entrepreneurs at pre-fixed rate and quantity. Rate must be such to cover basic costs of composting that meets minimum</p>	<p>a) Comprehensive mechanism for segregation at the household and community level for different kinds of neighborhoods separately – slums, plotted, flats and townhouses, inner city, etc. <b>(MG)</b></p> <p>b) Implement pre-existing ban since 2000 of single used plastics including straws, plastic bags, stirrers, cutlery and crockery of Styrofoam <b>(SG)</b></p> <p>c) Register all waste-pickers and help them to upgrade their work of doorstep collection. RWAs working with waste-pickers to be given extra benefits. <b>(MG)</b></p> <p>d) Create space in every ward for at least 15</p>	<p>a) 100 percent coverage of all households for garbage collection <b>(MG)</b></p> <p>b) Institutionalize a comprehensive decentralized garbage management mechanism <b>(MG + SG)</b></p>	<p>Contract out garbage management <i>without</i> adequate monitoring and enforcement of rules <b>(MG + SG)</b></p>

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	standards and minimum wages. <b>(SG + MG)</b>	waste aggregators to run licensed recycling centres with no burning of waste, covering sorted waste, and adequate fire security. <b>(MG)</b>		
<b>H. Clean Cooking Fuel</b>	a) Grow the Pradhan Mantri Ujjwala Yojna in NCR and North India to reduce biomass burning for cooking. <b>(CG + SG)</b>	a) Facilitate greater use of electricity for cooking by including electric stoves in Ujjwala or similar scheme <b>(CG + SG)</b> b) Fully subsidize all BPL families by 80% while building health awareness, make the subsidy an opt-in rather than current opt-out mechanism <b>(CG + SG)</b>	a) Make clean cooking a national priority for every household across the Country to substantially reduce indoor air pollution <b>(CG)</b>	
<b>I. Institutions, Ecosystem etc.</b>	a) Increase financial allocations for DPCC for capacity enhancement in all functions <b>(SG)</b> b) Enhance ability of state and local governments to enforce laws and norms <b>(CG)</b> c) Ensure ongoing improvement and stringent application of GRAP 365 days in a year, CAP as well as all pollution related laws <b>(SG + CG)</b>	a) Replicate all Delhi actions at NCR level and also as much as possible in surrounding districts. <b>(SG + CG)</b> b) Develop public and third-party monitoring ecosystem to monitor all potential points of pollution and report publicly in real time – Hotspot Management + Monitoring App + War Room. <b>(SG)</b>	a) Expand coverage of ongoing hotspot monitoring and enforcement to include all of Punjab and Haryana and also Western UP and Eastern Rajasthan <b>(CG + SG)</b> b) Eco-systemic view on tree planting of native trees only as well as maintenance of trees <b>(CG + SG + MG)</b>	a) Any laxity on firecracker ban <b>(SG + CG)</b> b) Smog towers <b>(SG + CG)</b> c) Odd even travel days <b>(SG)</b> d) Afforestation drives with non-native trees <b>(CG+SG+MG)</b>